

PORT OF LA CROSSE HARBOR PLAN 1999

Prepared By: Mississippi River Regional Planning Commission

For: La Crosse County Harbor Commission
La Crosse City Harbor Commission

Principal Author: Robert G. Fisher, AICP

Layout and Design: Barb Buros - Text and Tables
David Bonifas - Maps
Jason Plesh - Cover

Editing and Review: Greg Flogstad, AICP

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1. HARBOR HISTORY AND PRESENT SETTING

The Mississippi River and Its Changing Uses

From approximately 70,000 to 12,000 years ago, glaciers covered large portions of the northern part of the North American continent. As the glaciers melted they left land forms and major river systems in place as we would recognize them today, and the Mississippi River developed as the major drainage system of the mid-continent. From its modest size in northern Minnesota it swells in size as the Minnesota River, and the St. Croix, Chippewa, Black, and, Wisconsin Rivers all join to increase its size. Further down river the Illinois, Missouri, and significantly, the Ohio, enter the stream to make the Mississippi River the largest drainage basin in the United States.

As early as 900 AD, Native Americans settled along the Mississippi River to utilize water transportation. Later, the confluence of the Mississippi, Black, and La Crosse Rivers made Prairie La Crosse an important location for trading and manufacturing. Furs and logs were the most prevalent products shipped, but as permanent settlement and farming increased wheat, corn, and lumber became the dominant products shipped. The Mississippi River and its tributaries served as the earliest mode of long range transportation in the Upper Midwest.

As the French explorers and traders ascended the Mississippi River toward the end of the seventeenth and beginning of the eighteenth centuries, they saw the Native Americans playing a ball game, a rough and tumble war-skills contest using a stick which reminded the French of a staff called a crosier. The prairie soon became known as *Prairie La Crosse*.

The large prairie of La Crosse that stretched for two miles from the river to the bluffs was the only open space for many miles up and down the river. Lt. Zebulon Pike, leading a U.S. Army exploration mission in the Upper Mississippi River Valley, was the first white man to give a written report of this area in 1805. He noted the potential importance for defense, trade, and transportation of the prairie at the confluence of the Mississippi, Black, and La Crosse Rivers. Eventually, with portages and canals to the Great Lakes, the Mississippi and its tributaries were the major transportation waterways by which the Upper Midwest was settled.

Although the Native Americans and the French traders had used lightweight canoes to travel the river, and could travel either with or against the current, the Yankee traders favored larger, heavier craft propelled by poles. While these craft carried more than the canoes, they were more difficult to maneuver back up the river. In 1823, the steamboat revolutionized transportation along the Upper Mississippi. With the steamboat, transportation along the river was more easily possible in both directions. By the 1830s the U.S. Army Corps of Engineers was operating “snag boats” to remove logs and debris from the river’s navigation channels.

The first white man to establish a permanent residence at La Crosse was a young trader from New York named Nathan Myrick who built a cabin and store in 1846, two years before Wisconsin's statehood, on what is today called Pettibone Island. Later he and his business partner and their families moved to the mainland and established their business and residences at what is now called Spence Park, near the confluence of the three rivers. The fledgling village was approximately midway between the booming steamboat town of Galena, Illinois and the developing northern prairies and pineries. Myrick stayed for eight years, and witnessed the development of a thriving trading village before he moved on to new opportunities in St. Paul.

The 1850s saw La Crosse become the "Gateway City", a focal point for wagon roads as people took advantage of the region's access to the land beyond the river. La Crosse emerged as a center of the lumber manufacturing and shipping industry as logs were floated down river from the La Crosse, and especially the Black River, pineries to the north and east. Saw mills were established and the lumber was formed into rafts to be sent south to the growing markets in Illinois, Iowa, and Missouri. By 1853 there were over 30 sawmills operating in La Crosse. River towns such as La Crosse developed both as shipping points for products and people, and also as steam boat-refueling points. Wheat became the principal crop in the county and so La Crosse became a center for grain and flour shipment.

The first railroad reached La Crosse in 1858. This brought still more opportunities to move people and farm products from the interior of the state to the west, and to ship lumber directly to the growing cities of Milwaukee and Chicago. Eventually railroads would be the death knell of the early steamboat trade, but first they had to cross the Mississippi. La Crosse continued to thrive as both a railroad and steamboat town as passengers and freight traveling further up river, or to the west, had to transfer from one transportation mode to the other. The expansion of the railroad throughout the latter half of the nineteenth century decreased the importance of river transportation in spite of the Corps of Engineers' attempts to improve navigation and revitalize the river as a transportation artery. After the Civil War, a four foot deep channel project was started by the Corps in order to improve the waterway from St. Paul to St. Louis, and in 1907 Congress authorized dredging to a six foot channel. In the 1860s packet boats started using barges lashed along side to increase cargo capacity, and soon the use of small non cargo carrying "tow boats" became popular. In spite of these efforts steamboat use suffered a decline in the later years of the nineteenth century as railroads became more widespread, and the restrictions of the river mode due to seasonal shutdown because of ice or low water made it less competitive.

Modern river navigation efforts began in the 1930s as Congress authorized not only a deepening of the channel to allow passage of craft with a nine foot draft, but also authorized a system of dams and locks to control the water level. This action, with the actual lock and dam construction occurring in the 1930's, created the present-day navigation system currently in use. In modern times this vast network has developed into a navigation system enabling commercial freight to move by water in a network reaching from Sioux City, Iowa; Brownsville, Texas; Knoxville, Tennessee; Freeport, Pennsylvania; Minneapolis, Minnesota; and New Orleans, Louisiana.

Although the types of products carried by river boats over the years has changed, from consumer goods such as furniture and clothing, to bulk products such as grain and coal, the total tonnage carried today far exceeds the loads of the past. A barge can move 1,500 tons of product; equivalent to 15 rail cars or 60 semi-trailer trucks.

The Mississippi River today is a multiple use river consisting of federal and state wildlife areas, commercial and sport fishermen, recreational use, barge terminals and fleeting areas. It provides many economic benefits to the region through tourism, and transportation which also enhances the region's quality of life. Low cost water transportation provides the region's commodity producers and users with lower shipping costs.

Twentieth Century Waterfront Planning and Development Activity

Riverside Park Development. The first recorded major water front alteration was the creation of Riverside Park. In 1908, Dr. Wendell A. Anderson, then mayor of La Crosse, pushed for the development of a large riverside park west of Front Street. The park was designed by John Nolen, a noted landscape architect. Originally called Levee Park, \$75,000 was to be used for land acquisition, dredge fill, and the development of the park. Three years later, La Crosse Dredging Company began to dredge fill the thirteen acres. In 1918, a Spanish canon, which was captured in the Spanish-American War, was placed in the park in honor of the *USS Maine*. A memorial bandstand was built in honor of the park's initiator, Dr. Wendell A. Anderson, in 1930. The "Hiawatha" sculpture, a fountain, and, eagle sculpture were all added to the park since 1962. In 1983, Riverfest, a five-day Fourth of July family funfest, was held at Riverside Park for the first time. Historic paddle wheel tour boats also operate from this park. Riverside Park continues to be La Crosse's front door to visitors both by land and water. Overnight excursion boats, since 1997, have renewed their commitment to stop for port visits at Riverside Park.

Riverfront Urban Renewal Activities in the 1970s. The first major modern redevelopment of the La Crosse waterfront area began in 1977 when the Harborview Plaza project was designed to rejuvenate an area of abandoned industrial buildings and warehouses by building a public assembly multi-use facility, parking ramps, and a hotel along the riverfront. The new La Crosse Center would help to attract diverse interest in this area as the 120,000 square foot facility was three times as large as the old Mary E. Sawyer Auditorium. The Radisson-La Crosse Hotel Corporation became interested in the project and the Radisson was built in 1979. The redevelopment boundaries included the river, Second St., State St., and Mount Vernon St. Harborview Plaza would serve the needs for public assembly, office buildings, residential, retail, and tourist accommodations and would point the way toward a "gentrification" of the river front in downtown La Crosse, away from industry and freight wharves and toward retail, dining, offices, and overnight lodging.

Creation of City and County Harbor Commissions. Two harbor commissions serve the Port of La Crosse, one City and one County, both organized under provisions of Chapter 30.37 State Statutes. The Harbor Commissions were both created in November 1983 by the Common Council and the County Board. The City Commission has been granted control of the two municipal terminals and the Isle La Plume fleeting site by the Common Council, and the County Commission operates the Hintgen Island fleeting site.

Development of Port of La Crosse Harbor Plan-1988. Following the creation of the City and County Harbor Commissions, some members of the City Commission asked for assistance from the Mississippi River Regional Planning Commission staff to prepare a harbor plan, and help give direction to the goals and policies the Harbor Commission should be pursuing. The County Harbor Commission agreed with the need for an inventory of existing facilities, both commercial and recreational. Both Commissions, as well as the Departments of Transportation and Natural Resources and the major commercial marine towing operator in the La Crosse area, agreed common goals and direction needed to be established and placed into a plan, which could then be presented to the Common Council and County Board of Supervisors for future funding and decision making. The Department of Natural Resources awarded funding to this plan to assist in developing a detailed inventory of all recreation sites in Pools 8 and 9. This inventory and planning process took about two years, with the active involvement of both harbor commissions, private industry, and staff from several state and federal river management and transportation agencies. The plan ultimately resulted in six policy recommendations which were presented to the City and County governing bodies. The six recommendations are listed below, and their current status will be discussed in more detail later in Chapter 2 of this Plan update.

- 1) Establish a New Single City/County Port of La Crosse Harbor Commission
- 2) The Harbor Commission Will Be Recognized As The Local Surface Water Use and Waterfront Development Clearinghouse

- 3) Insure That At Least One and Preferably Two For Competitiveness, Port of La Crosse River Terminals Have Intermodal Railroad Transfer Capabilities
- 4) Increase Navigation Safety Through and Reduce The Chance Of Mechanical Failure Of The Soo Line Railroad Bridge Over The Black and Mississippi Rivers
- 5) Resolve The Fleeting Site Shortage and/or Conflict Of Existing Sites With Established Terminals
- 6) Reduce The Conflict, Or Potential Conflict, Real or Perceived, Between Commercial Barges and Pleasure Boats In The Port Of La Crosse Area

1990s Riverside North Redevelopment Project. The Riverside North Redevelopment Project is a current proposal for land use and zoning changes along the river. The boundary comprises Causeway Boulevard, State St., Fourth St. and Copeland Ave., and the river. The area is divided into twelve reuse parcels so that the resource base can be fully utilized. The redevelopment activities conform to the General Plan and follow the goals and objectives stated for the city. The project will eliminate any substandard residential or commercial facilities and change inappropriate land uses. It will help to improve the environment and preserve historically significant sites such as Spence and Riverside Parks, the War Eagle, Freight House, and the Fish Laboratory. Activities will diversify the economic base and provide space for mixed-use developments. It will also improve traffic circulation, provide public utilities, and provide access to recreation trails for pedestrians and bicyclists.

Private investment that has already occurred as part of this redevelopment project is the construction of a 78-unit apartment building targeted for moderate and upper income bracket tenants. This building is adjacent to Riverside Park and provides a pleasing visual backdrop to the east side of the park and carries on the changing face of the downtown riverfront. This building was built on a parcel that was already owned by the developer, but other privately owned parcels have been bought by the City in 1997 and 1998 and have been resold for private development or kept for public uses. Some of the previous uses that have been purchased and relocated or retired are a heating, air conditioning, ventilating installation contractor, a liquor distributor, a wholesale fish processor, and a ready-mix concrete operation. One of the largest single parcels of potentially developable land in the city is the 26 acre former Mobil Oil tank farm. This property has Black River frontage and at the time of the 1988 La Crosse Harbor planning process was a receiver of barge borne petroleum products. Federal pollution control legislation placed in effect since 1990 has required more safeguards to be installed at terminals and on the transporting vessels, and has made petroleum movement and transfer considerably less cost effective at smaller terminals such as the Mobil or Midwest Industrial Fuel terminals in La Crosse. Due to this, and other changes in the petroleum distribution industry Mobil has closed their terminal and removed the large storage tanks. The City has proposed consolidating this site with some of the other vacant land, and making new multi-purpose festival grounds, a passive parking area, and creating a riverfront natural area. Bicycle trails and La Crosse River access points in this vicinity already exist. A "day-use" marina area, intended for visitors downtown, had previously been proposed and studied for the La Crosse River adjacent to the south end of this area, but currents and sediment on the La Crosse River present some problems for this use at that location. The Common Council approved Option 2 of the Riverside North Redevelopment Plan, which includes a marina on the Black River.

Federal and State Planning and Implementation Activities on The Upper Mississippi River

River System Navigation Improvements. During the 1830s the U.S. Army Corps of Engineers began operating “snag boats” on the Mississippi River to remove huge dead trees that fell into the water and presented hazards to pole boats, and the earliest steam boats that plied the river in commercial trade. In 1837 a young Army engineering lieutenant, Robert E. Lee, supervised the blasting work to cut a channel through the rough rapids at Keokuk, Iowa. In 1866 the U.S. Congress authorized a federal program to construct wing dams and closing structures to direct the river’s natural current, along with dredging, to create a channel that would allow boats with a four-foot draft to navigate during the open water season. This project was completed by 1878. In 1907 Congress authorized the maintenance of a six foot channel. Work on this began, but was never fully completed before it was realized it would not be economically cost effective to continue. Lock and Dams 1 and 2 at St. Paul and the dam at Keokuk, now known as dam 19, are legacies from this earlier navigation improvement effort. In the early 1930s Congress authorized the design and work which led to the construction of 23 locks and dams to maintain a navigation channel capable of passing barge tows with a draft of nine feet. This work was essentially completed by the beginning of World War II; although a lock was added to the existing dam at Keokuk (L&D 19) in the 1950s, Lock and Dam 27, the last in the chain, was built between 1947 and 1964, and a larger lock and dam (L&D 26R) replaced the original Lock and Dam 26 near St. Louis in 1990.

Upper Mississippi Wildlife and Fish Refuge. In 1871 the federal government established agencies to deal with forest and fish “conservation”, and by 1905 the Bureau of Biological Survey recommended a system of national wildlife and fish refuges should be established. The Upper Mississippi River Wildlife and Fish Refuge was designated on June 7, 1924 and it runs from Lower Pool 4, near Wabasha, Minnesota to Pool 14 near Savannah, Illinois. This predates the modern lock and dam navigation system. When the nine-foot channel was established in 1930 the Army Corps of Engineers bought land for the wildlife refuge project and formed a cooperative agreement with the Department of the Interior, making that department responsible for the wildlife and fish management. Within the Department of the Interior, the current refuge administrating agency, the Fish and Wildlife Service, was created in 1939. The Corps retains certain rights to the federal lands it purchased, such as timber management, the right to build buildings for public recreation, and the right to flood the land.

GREAT. The Great River Environmental Action Team (GREAT) was established in 1974 as a multidisciplinary, multi-agency committee to work in conjunction with Federal, State, and other public agencies to develop a long range management strategy for the multipurpose use of the river. The portion of the river between Minneapolis and Lock and Dam 10 at Guttenberg, Iowa was designated as Great I.

The GREAT I Study of the Upper Mississippi River was published in 1980, and included problems, tasks, conclusions, and recommendations of natural resources, human resources, and river system management. The principle natural features analyzed included: climate, topography, geology, soils, stream flow characteristics, water quality, air quality, and flora and fauna. Principle human features analyzed included: population, manmade alterations, shoreline development, commercial transportation, recreation facilities, and cultural features. The principal river system management features analyzed included dredging, farming, erosion control, public involvement, and operating protected lands.

The study made recommendations on actions, policy changes, and further study needs on many Upper Mississippi River issues. Over the years the recommendations of GREAT I have been refined into individual Pool Plans and finally into the Channel Maintenance Management Plan (CMMP). The CMMP provides implementation guidance to the St. Paul District, Army Corps of Engineers for all dredging and disposal on the Minnesota, St. Croix and Mississippi River. The States of Minnesota, Wisconsin, and Iowa and the United States Fish and Wildlife Service have endorsed this plan and base legal agreements for dredging and disposal on this plan.

River Resources Forum. The Channel Maintenance Management Forum was established during the negotiations of GREAT I. The group continued to work on important river issues but the focus of the group changed from just channel maintenance activities to broader river issues. Consequently, the group

was renamed to the River Resources Forum in 1991 to signify the change. The RRF membership includes representatives from these federal agencies, Corps of Engineers, Fish and Wildlife Service, Coast Guard, and the Environmental Protection Agency. It also includes state representatives from the Iowa, Minnesota, Wisconsin Departments of Natural Resources and Departments of Transportation.

The main purpose of the RRF is to discuss important river issues and to provide a forum to resolve problems with Mississippi River Management. The members act as an advisory committee to the St. Paul District, Corps of Engineers but most of the recommendations of the Forum are followed by the Corps. The details of issue resolution are often handled for the Forum by three work groups of Fish and Wildlife, Recreation and Navigation. In certain situations the Forum will establish a special task force to address issues that require more attention such as the newly formed Water Level Management Task Force.

Comprehensive Master Plan for the Management of the Upper Mississippi River System. The Upper Mississippi River system is a major multi-purpose water resource and serves as a home for commercial, industrial, recreational, and wildlife refuge activity. The Comprehensive Master Plan for the Management of the Upper Mississippi River System of 1982 conducted by the Upper Mississippi River Basin Commission addresses the issue of how expanding development of the river will effect the wildlife habitats and safe recreation. This Master Plan looked at the needs of the three key river resources (*environmental, economic, and recreation*) and resolutions for the competing interests. Issues that were of particular interest were navigation carrying capacity, environmental impacts of navigation including mitigation measures, dredged material disposal out of the floodplain, and computer inventory and analysis capabilities. A dozen recommendations address each of these resource management concerns.

Upper Mississippi River-Illinois Waterway Navigation System Study. The growth of the commercial navigation industry has increased demand on the Lock and Dam system. In order to examine increasing river system capacity while protecting the environment, the Corps of Engineers established an effort in 1991 called the Upper Mississippi River-Illinois Waterway Navigation System Study. This study is assessing the need for navigation improvements at 29 locks on the Upper Mississippi River and 8 locks on the Illinois Waterway.

American Heritage Rivers Initiative. The American Heritage Rivers Initiative (AHRI) is a federal program, supervised by the Council on Environmental Quality, designed to support communities in their locally-based efforts to restore and protect America's rivers. In 1998, ten rivers were nominated by an Advisory Committee, and later selected by the President, as the first American Heritage Rivers. The Upper Mississippi River was included in this selection. Approximately 70 municipalities along the Mississippi River in the five states submitted applications asking for the American Heritage River designation. The cities of La Crosse and Onalaska were among the four submitting applications from Wisconsin.

Other Agencies and Commissions

Mississippi River Regional Planning Commission. The Mississippi Regional Planning Commission is a Commission of nine counties (*Buffalo, Crawford, Jackson, La Crosse, Monroe, Pepin, Pierce, Trempealeau, and Vernon*) located along the Mississippi River in Western Wisconsin. The Commission was organized in 1964 to provide planning assistance on regional issues, assist local interests in responding to state and federal programs, provide advisory service on regional planning issues, act as a coordinating agency for programs and activities, and provide cost shared planning and development assistance to local governments. Specific examples of services include: comprehensive community plans, zoning and subdivision ordinances, grant writing, geographic information system map production, revolving loan fund administration, economic development planning, socio-economic data collection, and dissemination and public policy advocacy on issues affecting the region. The Commission activities are directed by a board of 27 commissioners appointed by the county boards and governor.

Minnesota-Wisconsin Boundary Area Commission. The Commission represents a joint effort by Wisconsin and Minnesota to conduct studies, develop recommendations, and coordinate government actions related to present and future protection, use, and development of the lands, river valleys, and waters that form the boundary between the two states especially the Mississippi and St. Croix Rivers.

The Commission provides field services and advisory recommendations to its sponsor states. The Commission's activities are directed by a board of ten commissioners, half of whom are appointed by the governor from each state. In Wisconsin the five appointees are required to be confirmed by the state senate.

Upper Mississippi River Basin Association. The five Upper Mississippi River states of Minnesota, Wisconsin, Iowa, Illinois, and Missouri cooperate in action regarding the basin's water and related land resources. It sponsors studies of river-related issues, cooperative planning for use of the region's resources, and an information exchange. It allows the member states to develop regional positions on resource issues and to advocate the basin states' collective interests before the U.S. Congress and federal agencies. The association has placed major emphasis on the Environmental Management Program (EMP), approved by the federal Water Resources Development Act of 1986. One representative from each state forms the governing body. In Wisconsin this representative is appointed by the Governor. Five federal agencies with major water resources responsibilities serve as advisory members. When this Association had federal funding and full federal agency participation it was known as the Upper Mississippi River Basin Commission, and prepared the *Comprehensive Master Plan for the Management of the Upper Mississippi River System* which was cited previously.

Upper Mississippi River Conservation Committee (UMRCC). The UMRCC is a non-profit organization of state river biologists from Minnesota, Wisconsin, Iowa, Illinois and Missouri. The group was formed in 1944 for conservation of fish and wildlife populations on the Upper Mississippi River.

Mississippi River Research Consortium (MRRC). The MRRC meets on an annual basis in La Crosse, Wisconsin to discuss current and ongoing research being conducted on the Mississippi and Illinois Rivers. The meeting is held on the third Thursday and Friday in April.

Mississippi River Parkway Commission. The Wisconsin Mississippi River Parkway Commission is one of ten state and one provincial commissions, which together administer the Great River Road. The Great River Road concept goes back to at least 1939 when the idea to develop a scenic "parkway" type road along the Mississippi River was formalized into federal legislation authorizing a study. Since that time the Great River Road concept has evolved into a system of existing highways, marked by a common symbol, along both sides of the River from Canada to the Gulf of Mexico. The goal is to preserve the unique historical heritage and beauty of the river valley as well as promote tourism and economic development compatible with the resources of the river front communities. The commercial river traffic, locks and dams, and the commercial terminals themselves are factors of interest to tourists who are not familiar with the River.

The Heritage Corridor Initiative, which the Parkway Commission carried forth on behalf of the Mississippi River Corridor, was spawned by a federally authorized program opportunity. The Heritage Corridor concepts allow "local interests" (*one or two counties to multi-state organizations*) to nominate unique historical and/or scenic "corridors" for the National Heritage Corridor designation. This proposal to designate the entire length of the Mississippi River from Minnesota to the Gulf was defeated after opponents felt it would lead to increased federal control of traditionally local issues such as land use regulations, and also there was concern federal land acquisition efforts in the river valley would also be initiated.

2. RECENT HARBOR AND WATERFRONT PLANNING AND IMPLEMENTATION ACTIVITIES

County Harbor Commission

The County Harbor Commission was established on November 1, 1983 and held its first meeting on February 7, 1984. The board is made up of seven county residents, one of whom is a member of the County Board of Supervisors. The Commission is established in accordance with the provisions of Chapter 30.37 Wisconsin Statutes. A harbor commission may exercise its powers and perform its duties without first obtaining the consent of the County Board, except it can not financially obligate the County without consent of the County Board. The Harbor Commission exercises its authority over the commercial aspects of the day-to-day operation of the public harbor and public harbor facilities, and the County Board exercises its authority over the aspects relating to the public health, order, and safety. The Harbor Commission is authorized by statute to: (1) operate publicly-owned or leased wharf and terminal facilities and handling equipment, (2) operate publicly-owned railroad belt lines or other essential railroad facilities, or lease railroad facilities, (3) assign berths at publicly-owned or leased harbor facilities, (4) maintain guards at publicly-owned or leased harbor facilities; and (5) fix and regulate fees for use of publicly-owned and operated harbor facilities and for other services rendered.

The Harbor Commission shall make such plans as it deems necessary for the improvement of the harbor over which it has jurisdiction, so as to adequately provide for the needs of commerce and shipping, including the efficient handling of freight and passenger traffic between the waterways of the harbor and air and land transportation terminals. Among other things such planning may include plans for the acquisition of land for harbor purposes, including industrial sites, plans for laying out service roads, plans for the construction and acquisition of harbor facilities designed to enlarge or improve harbor operations, and plans for the improvement of publicly-owned harbor facilities. The Harbor Commission shall not carry out such plans until they have been submitted to and approved by the County Board. The Harbor Commission may lease to any party, either for exclusive or common use, such parcels of publicly-owned harbor lands and facilities, over which it exercises control, as it deems expedient. Such leases need not even be for the purpose of harbor operation if it is for revenue enhancement, provided any lease is subsequently approved by the County Board.

At the time the County Harbor Commission was created the County did not own or operate any commercial port or harbor lands or waters. The County Board and Town Board exercised joint zoning control over the lands in the Town of Campbell, which includes privately-owned land operated as a commercial port facility. The zoning of that land is "Industrial". The various public boat ramps in the unincorporated parts of the County are operated by the County Parks and Properties Committee, or other local, state, and federal agencies.

Past Accomplishments. The following is a summary of the accomplishments of the County Harbor Commission:

- **Sheriff's Boat Patrol.** The Sheriff's boat patrol operates at least on week-ends and holidays during the boating season. This consists of a capable, properly equipped boat staffed by two people, at least one of whom is a sworn officer. This patrol has been useful in enforcing "operating while intoxicated" statutes as well as "no wake zone" ordinances, and general boating safety, public safety, and law enforcement duties. Since the summer of 1991, the sheriff's department has patrolled the river and reported on safety issues to the County Harbor Commission.
- **No Wake Zones.** The County Harbor Commission determined the justification for and location of "no wake zones", and posted signs at all boat ramps and marinas on both sides of the Mississippi and Black Rivers, and posted signs at bridges and shoreline points as appropriate. This task was coordinated with the La Crosse City Harbor Commission. In November of 1990, the county on parts of the Mississippi and Black Rivers mandated speed limits of 30 mph, and "no wake zones" were

created for Goose Island Park and Wigwam Slough. One year later “no wake zones” were passed for within 100 feet of docks and public landings. In 1993, five, "no wake zones" were established for Brice Prairie Channel. The southern part, Zone A, runs between June 1 - September 1, most of Zone C is year round, and the northern part of Zone C is from ice-out to July 1. The areas of the Sail Boat Club on Lake Onalaska and Lytles on the Black River are also "no wake zones". The Commission has also been in charge of placing and maintaining signs and buoys for the regulated zones. These signs and published brochures explain all speed limits and no wake zone rules, and are established for safety concerns.

- **Hintgen Island Fleeting Site.** The County Harbor Commission identified the need for, and succeeded in acquiring ownership of land for a barge fleeting/emergency tow refuge on Hintgen Island. This effort included negotiations with the Department of the Interior to transfer ownership of the island from the federal government to La Crosse County, and negotiations with Houston County and the State of Minnesota, where the island lies, to insure proper zoning and water regulation permits. Coordination with the Wisconsin Department of Transportation and the Wisconsin legislature was also necessary in order to have a law passed to permit expenditure of Wisconsin state funds on a facility located in another state. In the summer of 1997 this fleeting facility was constructed and was used during the 1998 shipping season. A grant was also applied for and awarded from the Wisconsin Harbor Assistance Program which helped to cover the \$456,000 cost of developing the fleeting site. The scope of the work included improvements for 1400 linear feet of the channel side consisting of bank shaping, filter fabric and rock riprap protection, construction of a twenty foot diameter sheet pile cell mooring structure, five steel pipe pile breasting tripods, and site cleanup. The Hintgen Fleeting Site can hold fifteen barges.

The land trade with the federal Department of Interior included two parcels of county owned land; a five acre native prairie parcel designated as a State Natural Area adjacent to existing Fish and Wildlife Service land, and an approximately two acre parcel at the intersection of STH 35 and CTH OT, which could have potential as a visitor information center for the federal refuge.

- **1988 Harbor Plan.** The County Harbor Commission was instrumental in the preparation of the *1988 Port of La Crosse Harbor Plan*.
- **Coordinating Agency.** The County Harbor Commission serves as a clearinghouse and coordinating agency for citizens, agencies, and businesses involved in or concerned about harbor issues and facilities, including local boating regulations.

City Harbor Commission

The City Harbor Commission was established on November 22, 1983 and held its first meeting on February 28, 1984. The board is composed of seven city residents, one of whom must be a member of the Common Council, appointed by the Mayor and approved by the Common Council. The Commission was established under the same State Statutory authority as was the County Commission. The Common Council in its establishment resolution stated the Commission shall fix and regulate all fees and charges for use of publicly-owned and operated riverfront activities, with all such fees and charges being subject to Common Council approval. The Commission was granted “exclusive control over the day-to-day operations of the public riverfront facilities”. The City Harbor Commission, “with the advice and cooperation of the Planning Department” shall make such plans as deemed necessary for improvement of the riverfront “over which it has jurisdiction”, so as to adequately provide for the multi-use needs of the riverfront, including the efficient handling of freight and passenger traffic, including plans for the acquisition of land for riverfront purposes...including recreational use. The authority of the Harbor Commission also supervising the contracting and construction of riverfront improvements, except the Commission may delegate this function to the Board of Public Works if the Commission determines it is not qualified to perform this work itself.

A letter of August 26, 1985, from the City Attorney to the Board of Harbor Commissioners amplifies and clarifies the duties and responsibilities of the Commission. State Statute 30.01(3) defines "Harbor Facility" to mean "every facility useful in the maintenance or operation of a harbor, including transportation facilities of all types, terminal and storage facilities of all types, wharves, piers, slips, basins, docks, bulkheads, and dock walls, and floating and handling equipment, power stations, transmission lines and other facilities necessary for the maintenance and operation of such harbor facilities". This wording seems to place city owned park and recreation land outside the responsibility of the Harbor Commission, although the responsibility of both agencies to coordinate waterfront usage is evident. The authority of the Board of Public Works (BPW) regarding city-owned waterfront land is clarified in an attachment to the August 26 letter. The BPW has management and control of all riparian rights of the City resulting from the ownership of land abutting upon the navigable water. The BPW "shall have full power to lease docking and boathouse privileges upon the adjoining shore upon such terms and conditions as it shall deem reasonable....In all cases where the jurisdiction of the waterfront might be in some other Department of the City, such other department together with the Board of Public Works shall determine which shall exercise the control thereof."

Past Accomplishments. The following is a summary of the past accomplishments of the City Harbor Commission or, in the case of the earliest work, Board of Public Works:

- **Harbor Development Grant.** The City was awarded a \$116,421 Wisconsin Department of Transportation harbor development grant, and constructed a sheet pile facing, concrete pier, and pile clusters to create a commodity transfer dock on Isle La Plume. This site has been leased by the City Harbor Commission on an annual basis to Brennan Marine, Inc. for use as a barge fleeting site.
- **Fleeting Site.** The Harbor Commission recommended and was successful in the placing of pile clusters to create a barge fleeting area south of the municipal dock on Isle La Plume. This site is leased to Brennan Marine until 2008. The Wisconsin Department of Transportation (DOT) made a cost-share grant to the City for \$176,500 to fund 80 percent of the project cost.
- **Bollards in Riverside Park.** The City Harbor Commission was instrumental in having mooring bollards placed in Riverside Park to accommodate large cruise boats which may moor at that location.
- **North Side Dock.** The facing wall was replaced using a Wisconsin DOT grant of \$20,000 to fund 80 percent of the cost.
- **Terminal Development.** The Harbor Commission has become involved in the administration of terminal development by engaging in negotiations and arrangements with a harbor fleeting service and stevedoring operator. When a private operator lost his lease at a privately owned site on the Mississippi River he sought permits to begin operations at an undeveloped site he owned on the Black River. Because of environmental concerns permits were denied at this site by the Department of Natural Resources and Corps of Engineers, but in the meantime the operator was granted a short term lease to store commodities at the Isle La Plume site. Environmental problems occurred here resulting in the Harbor Commission revoking the lease, but in the meantime the City negotiated a land swap, granting the operator a waterfront parcel on Isle La Plume just north of the City facility, and taking possession of the operator's former property on the Black River. In cooperation with other City agencies this Black River site was then sold to a private party who is now developing apartment houses.
- **Commodity Storage Area.** The initial plan for the Isle La Plume dock development proposed a commodity storage area. This was later not allowed by the Department of Natural Resources as the proposed site was a former landfill which posed potential problems with possible puncture of the surface cap.

- **Marina Study.** The Harbor Commission hired a planning consultant to determine the feasibility of developing a day use marina near the central business district. The site selected for further study was at the north end of Riverside Park, on the La Crosse River. Subsequently Option 2 of the Riverside North Redevelopment Plan recommended a marina on the Black River.
- **Coordinating Agency.** The City Harbor Commission regularly coordinates with the County Harbor Commission when designating “no wake zones” within the City limits, participating with the County in the posting of signs designating those areas. As part of the continuing cooperation, the President of the La Crosse City Board of Harbor Commissioners attends meetings of the La Crosse County Board of Harbor Commissioners, and the County is likewise notified of City meetings. Both Commissions have cooperated in sponsoring public meetings such as the Water Level Management study conducted by the Corps of Engineers and state and federal natural resource agencies.

Harbor and Waterfront Land Use Changes

Since the 1988 La Crosse Harbor Plan major changes have occurred in the La Crosse area waterfront, both in physical appearance and operations. The following documents the harbor and waterfront land use changes since 1988:

Hintgen Island Fleeting Site. This island is located in the state of Minnesota on the west side of the main channel of the Mississippi River opposite Isle La Plume. It was used for many years as a traditional fleeting site with inadequate mooring structures. Over time the island suffered severe erosion from improper mooring methods and a recommendation in the 1988 Harbor Plan was to construct a proper mooring area, with adequate supervision, for barge fleeting and/or emergency refuge for disabled tows. The site was formally deeded to La Crosse County and the State of Minnesota granted a permit for the placement of a three wide x five long barge fleet as determined by the site design. Using a Wisconsin Department of Transportation cost-share grant, the County constructed a 15 barge fleeting area in 1997. This fleeting area has demonstrated its own need by being utilized to near capacity during the 1998 navigation season. It is operated by a local fleeting service under lease with La Crosse County.

Barge Fleeting site at Isle La Plume. This site is located on the main channel side of Isle La Plume, south of the municipal dock. The 13 pile mooring structure at the upper end of the fleeting site was replaced in 1993 with a 24 foot mooring cell. This is one of the major fleeting sites in the Port of La Crosse, and it is operated by a local fleeting service under lease with the City Harbor Commission. The Wisconsin Department of Natural Resources (DNR) permit allows a five barge long x 3 barge wide configuration, with emergency provision to 4 wide upon a telephone request to DNR.

Corps of Engineers Dredge Material Area. The material deposit area is on the southwest side of Isle La Plume near the City’s salt storage shed. Waterside access is at a ramp just south of the Municipal Dock. Sand from Corps of Engineers river dredging activity is unloaded from barges and stored at the site where it is available to the City and other municipalities for fill and other uses.

Municipal Dock at Isle La Plume. This facility is located on the southwest side of Isle La Plume. The structure was built before the 1988 Plan, but its use as a short-term fleeting site leased to Brennan Marine is a new use. The volume of barge traffic moving into the Port of La Crosse makes this a valuable relief site for short-term storage.

Hanke Terminals. This facility is located on the west side of Isle La Plume between Marco Drive and the main channel. It is north of the Municipal Dock. It was originally sold by the City to George Jollivette in 1987 as part of a trade for Jollivette's Black River property. The property has changed hands twice since then, and now is a general service bulk terminal.

Division Street Docks. When the Division Street Docks were operating as a general commodity dry freight facility at the time of the 1988 plan, activity was spread north and south either side of Division Street which dead-ends at the Mississippi River. Currently the terminal is used only by La Crosse Plumbing for the receipt of ductile iron pipe and all activity occurs on a 2.59 acre parcel, with 338 foot frontage north of Division Street. There is a 5½ acre parcel south of the currently used dock area, extending between the river and Second Street. It is discussed under the title Open Area below.

Open Area. This is a 5½ acre parcel located just south of the Division Street docks, fronting on Second Street and the Mississippi River main channel. At the time of the 1988 plan the upland, east side, of this parcel was hard surfaced and was used as the principal storage and staging area for semi-trailers serving the Heileman Brewery. The western portion of the tract is at a lower elevation, but has approximately 550 feet of river frontage. The entire parcel is poised for a "higher and better" use, but the fate of the brewery makes that future use a bit uncertain at the present time.

Holnam Cement. This barge to truck transfer and storage facility is located immediately south of the Cass Street bridge on Cross Street. Holnam is the current owner/operator of the former Dundee Cement facility. This facility added a third storage tower in 1999.

Courtyard Marriott. This lodging facility, on Front Street just north of the Cass Street bridge, is located on the site of a former warehouse. The rejuvenation of the surrounding streetscape and construction of the motel has changed the character of the downtown riverfront toward tourism, retail, dining, and lodging.

Front Street. This north-south street has been reconstructed in the vicinity of the Courtyard Marriott as well as farther north of State Street. In each case the street realignment and improvement is intended to serve uses such as restaurants, hotels, multi-family residences, and "festival grounds". The over all impact has been to present an inviting appearance to the waterfront to attract general recreation and tourism.

AgriGrainMarketing (AGM). This grain elevator, located on Front Street, south of the Civic Center, receives truck hauled grain for storage and loading into barges. AGM is the current operator of the facility through a contract with Cargill, the site's owner.

"Steamer Julia Belle Swain". This unique modern day replica of a 19th century packet boat calls La Crosse home during the river navigation season. The boat is driven by a steam powered stern paddle-wheel. It is a "day boat" with no over night accommodations, but it frequently makes trips up or down the river to Prairie du Chien and Winona, and is also available for conferences and other shorter trips. The boat docks at the quay wall at the south end of Riverside Park.

Excursion Boat Mooring. After a hiatus of several years, in 1997 the "Queens" River Excursion Boats returned to La Crosse as a scheduled tour stop, and used Riverside Park as their mooring operation. *The Delta Queen, Mississippi Queen, and American Queen* collectively made seven seasonal stops at La Crosse, in 1999, and will make nine stops in 2000, and eleven in 2001.

River Walk. Although Riverside Park has been a feature of the La Crosse waterfront since 1908, the construction of a River Walk has recently been completed. This includes a paved walkway with railings and more attractive benches and streetlights, closer to the river.

Mobil Oil Site. This approximately 25 acre site is located north of the La Crosse River, with frontage access to Copeland Avenue on the east. It also abuts on an abandoned rail grade on the west. The site had several large petroleum storage tanks and received liquid petroleum by dedicated barge delivery. Due to changes in both Mobil's distribution system, and more restrictive federal laws, the site is no longer operative, and the tanks have been removed. The boat refueling pier is no longer used, but it too remains in place. At the present time the site is still owned by Mobil but is for sale, and various uses are being proposed. These range from a wildlife and trail site, a multi-purpose festival site for events, to apartments and commercial use.

Riverside Redevelopment Project. This collection of 11 parcels, which includes the Mobil Oil Site discussed above, consists of 124 acres interspersed among other properties within an overall area bounded by the Black River on the west, Copeland Avenue and Third Street on the east, State Street on the south, and Causeway Boulevard on the north. The reuse parcels are currently in uses ranging from new luxury apartments, light manufacturing, fest grounds, warehousing, hiking/biking trails, and former industrial site brownfields. New uses proposed for the remaining reuse parcels include a relocated, larger fest ground, additional high-rise density apartment buildings, office and commercial use, parking, and recreational land and trails. In October 1998, it was announced that Century Telephone would build their Midwest headquarters on a site in this redevelopment area. This will be a major office use. One of the reuse parcels, north of the La Crosse River from Riverside Park, has already been studied by the City Harbor Commission as a site for a day-use marina, but La Crosse River currents and sedimentation problems have ruled out that site.

Harry Viner Site. This parcel on the Black River north of Causeway Boulevard was owned by George Jollivette in 1988 and was proposed as a possible harbor site. All the necessary permits and zoning could not be obtained, and in a land swap ownership passed to the City who then sold it to businessman Harry Viner. He initially proposed a recreational marina, but now is beginning apartment development, with recreational and aesthetic use of the waterfront.

Northern States Power Company Waterfront. The water area south of the Northern States Power Company generating plant at the mouth of the Black River was occasionally used as a temporary barge fleeting area. A temporary use permit by DNR can be considered upon request by Brennan Marine.

Midwest Industrial Fuel. This facility continues to receive asphalt by barge as it did in 1988, but no longer receives fuel oil, diesel fuel, or other liquid petroleum products by barge. It serves as a commercial boat refueling site.

F. J. Robers Company, Inc. This tract on French Island is on the Black River, with access to South Bainbridge Street. It is bounded on the south by the mainline of the Canadian Pacific Railroad, which provides rail freight access to the property. The parcel is under a single ownership and has several leasees

who use water transportation. One of the largest leasees in 1988 was Alter Company, a scrap metal dealer, which is no longer on the site. New leasees since the 1988 plan include a cotton seed hull receiving and processing company which receives product by water, and a scrap railroad tie chipping plant, which has not used water transportation. Most of the dredging equipment that was used by the Robers Dredge Company has been sold to the company's next door neighbor, J.F. Brennan Company.

Skipperliner. This former marina site on French Island was operated as Skipper Bud's in the 1988 Harbor Plan, and subsequently became known as Beacon Bay. In 1999 the site was purchased by Skipperliner, and will become the primary assembly point and launch site for this commercial passenger boat manufacturer.

Brennan Marine Inc./J.F. Brennan Company. Located on French Island on the Black River, these two sister companies provide harbor tug and fleeting service and marine construction and dredging. A major addition since the 1988 plan is the 100'X70' 1,000 ton dry-dock which offers hull repair services not only to Brennan's own equipment but also to other towboats and barges. This company no longer operates the fuel barge or other "mid stream" supply services for line boats it did in 1988.

North Side Dock. The municipal dock is located on the Black River at the south end of Copeland Park. It has been there for many years and has served as an "as needed" facility with users entering into separate agreements with the City Board of Public Works each time it is used. It received its first significant annual cargo contract in 1997, when a company leased the facility to receive and transload to trucks, barge borne pig iron. Hanke continues to lease, but must allow other short term users access. Hanke has erected a chain link fence around the land side of the terminal. Skipperliner, an excursion boat builder, has been a user of this facility.

State Comprehensive Outdoor Recreation Plan and Other Studies

Water oriented recreation within Mississippi River Pools 7 and 8 has always been a major factor to consider in planning the overall river operations and facilities. Even the major studies that have been conducted (GREAT, River Resources Forum, Upper Mississippi River-Illinois River Waterway Navigation System Study, for example) principally for the purpose of "improving" commercial navigation always include a major "recreation" section.

One of the basic documents used by the Wisconsin Department of Natural Resources to help determine recreation demand and hence recreational facility demand, is the State Comprehensive Outdoor Recreation Plan (SCORP). The last published SCORP was prepared in 1989 as the "1990-1995 SCORP". This plan contained the results of different surveys which sampled adults across the state. Several methods of sampling were conducted, but one of the primary methods was use of the driver license renewal mailing in cooperation with Department of Transportation. The sampled population was those over age 16, and primarily licensed drivers. This survey further sampled within different parts of the state using the then existing DNR administrative district boundaries. In October, 1999 DNR released Draft 2.0 of the SCORP, intended to guide outdoor recreation planning to year 2005. This SCORP also includes the results of several statewide residents surveys, from several sources and methodologies, but unlike previous SCORPs it includes surveys of children down to the age of 7. These younger children are important not only because they are a major user of recreational facilities in their own right, but also because they influence the types of recreation facilities and vacations their parents use or take.

The two survey results are not directly comparable, but the water based recreational information from both is useful for planning purposes. Bearing in mind, both surveys as discussed herein relate to the state as a whole, and not just the Mississippi River or Pools 7 and 8. In 1990, 27 percent engaged in "motorboating" at least once during the year, while in 1998, that percentage of the total population was

20 percent. How well this data compares to locally observed usage and DNR data for La Crosse County motorboat registrations will be examined in Chapter 4 of this Harbor Plan. Another major water use, “swimming”, showed a state-wide increase in participation with 33 percent of the population engaging in this in the 1998 surveys, and 27 percent reported in the 1990-1995 SCORP. The inclusion of younger children in the survey universe in the more recent study may contribute to that increase. **Canoeing**, a minor sport in terms of participants at the state-wide level, showed a decrease with 8.56 percent of the population doing it at least once in the survey intended to guide recreation in 2000-2005, where as 10 percent responded they did it in the 1990 survey. **Water skiing** also declined in percentage population, with 7 percent reporting doing it in 1990, and 5.77 percent claiming having done it during the recent survey period. **Fishing**, an obviously popular and ubiquitous water sport is not clearly tracked in participation rate between the two surveys. In 1990 participation was divided into various fishing venues, such as “fish in lake from boat” or “fish in rivers and streams by wading”. There was no specific category for “bank fishing in river or stream”, which is a significant sport in Pools 7 & 8. In the 1990 surveys, 26 percent of the respondents statewide indicated they had done some type of fishing in the previous 12 month period, with a higher percentage, 31 percent, of respondents in the DNR’s Western District, which includes La Crosse, indicated they had fished. The statewide percentage of people who have fished in the past 12 months according to the new SCORP is 34 percent. One reason for this increase in fisher persons is the survey for the “2000-2005 Plan” included persons between 7 and 15 years old. This age group does a lot of fishing, especially bank fishing.

Other Studies

La Crosse Harbor Plan Recreation Literature Review

There have been many water-based recreation studies performed on the Upper Mississippi River which have relevance and useful background for planning purposes in the *Port of La Crosse Harbor Plan*. Some of these studies are listed below. Both the plans themselves and summaries are available for review at the Mississippi River Regional Planning Commission office.

Upper Mississippi River National Recreation Area Study
U.S. Department of the Interior
U.S. Army Corps of Engineers
April 1971 Draft

Upper Mississippi Dredge Disposal Site Recreation Study
Report to the Great River Environmental Action Team (GREAT I)
and the St. Paul District, U.S. Army Corps of Engineers
by School of Natural Resources, College of Agriculture and Life Sciences
University of Wisconsin-Madison February 1978
Marina Usage Assessment for the Greater La Crosse Area, August 15, 1992
Developed by Stephen C. Brokaw Ph.D. and James E. Finch Ph.D., UW-La Crosse Department of Marketing for the La Crosse Parks Department and Mayor’s Office - City of La Crosse

Recreational Boat Impact Investigations - Upper Mississippi River System, Pool 4, Red Wing, MN -
February 1994
Long Term Resource Monitoring Program-Special Report 94-S004
Scot Johnson, Minnesota DNR, prepared for Environmental Management Technical Center, Onalaska, WI

Feasibility Study for the Transient Boat Docking Facility, La Crosse, Wisconsin - Phase One Findings and Conclusions Evaluating Needs and Demand - Final Draft, January 1995, for La Crosse Board of Harbor Commissioners by Johnson and Johnson & Roy/Inc.

Transient Boat Docking Facility Feasibility Study - Phase II - Draft Report
for the City of La Crosse Board of Harbor Commission, Wisconsin Waterways Commission, and
Wisconsin Department of Natural Resources by Johnson, Johnson & Roy/Inc. June 1995

A Study of Water-Based Recreation on the Upper Mississippi River (Pools 7 & 8)
U.S. Corps of Engineers Waterways Experiment Station for St. Paul District C of E
James J. Vogel, Clemson University
John P. Titre, Waterways Experiment Station
Kenneth C. Chilman, Southern Illinois University
September 1996

Communities, Recreation and the Mississippi River
A summary of Discussions with Community Leaders
Prepared by Recreation Work Group Pools 7 and 8 Task Force
River Resources Forum January 1997

*1997 Recreational Boating Study of the Lower St. Croix Scenic Riverway and the Mississippi River From
the Twin Cities to Lock and Dam 10*
Minnesota-Wisconsin Boundary Area Commission for the U.S. Corps of Engineers and the Minnesota
and Wisconsin Departments of Natural Resources

1997 Boating Program Report
Wisconsin Department of Natural Resources, Bureau of Law Enforcement, PUB-LE-314-98

Wisconsin Statewide Comprehensive Outdoor Recreation Plan 2000-2005 - Draft 1.0
Wisconsin Department of Natural Resources - Bureau of Parks and Recreation

Summary Wisconsin Statewide Comprehensive Outdoor Recreation Plan 2000-2005 - Draft 2.0
Wisconsin Department of Natural Resources - Bureau of Parks and Recreation

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3. INVENTORY OF HARBOR FACILITIES

Harbor Planning Area

Recognizing that pleasure craft moored or launched anywhere within Pools 7 or 8 are able to travel easily into the more immediate La Crosse harbor area where traffic conflicts with commercial freight facilities are most likely to occur, the geographic area addressed in this 1999 Port of La Crosse plan update is shore to shore, Upper Mississippi River Pools 7 and 8, between Corps of Engineers Locks and dams 6 at the Village of Trempealeau on the up-river side and 8, at the village of Genoa on the down-river side. This larger reach of River is for water-based recreational facility inventory purposes only, and makes no suggestion or recommendation that either the City or County of La Crosse Harbor Commissions have any jurisdictional authority beyond the limits of the County of La Crosse.

River Oriented Recreational Lands and Facilities

The following is a brief summary of the numerous and diverse recreational lands and facilities serving the Port of La Crosse. Table 3.1 provides information on each of these sites and Maps 3.1, 3.2, and 3.3 identify their location.

Federal. The Upper Mississippi River National Wildlife and Fish Refuge offers 11,898 acres of wetlands, wooded bottom lands, sedge meadows, and upland slopes in La Crosse County. An additional 216 acres is found in the upper Pool 7 portion of Trempealeau County and 1,123 acres in lower Pool 8 in Vernon County. The refuge also provides 9,186 acres in Minnesota in Pools 7 and 8, including “hidden” lakes and the Root River bottoms in Winona and Houston Counties. Wisconsin and Minnesota have a reciprocal fishing license agreement that allows the holder of a license issued by either state to fish within either state’s waters west of the Burlington Northern Santa Fe tracks in Wisconsin and east of the Canadian Pacific or IMRL tracks in Minnesota. The U.S. Fish and Wildlife Service and the Army Corps of Engineers own and maintain or lease many of the boat landings in Pools 7 and 8.

Federal river-oriented recreational land within the Port of La Crosse is either administered directly by the Fish and Wildlife Service as part of the federal refuge or is leased from the Corps of Engineers to local units of government, such as Goose Island County Park, or Nelson Park on French Island. A list of major habitat restoration projects completed by federal, state, or local initiative is in Appendix 1 of this plan.

State. The largest State owned recreational site in the Pool 7 and 8 Port of La Crosse area is the Van Loon Wildlife Area, at the mouth of the Black River above Lake Onalaska. Although this site is accessed in the upper reaches of Lake Onalaska, it provides recreational boating opportunities for small craft, canoeists, fishermen, and hunters. The Wisconsin Department of Natural Resources also owns and maintains a few access points in Pools 7 and 8.

Local. Town, village, city, and county governments own, lease and maintain some of the recreational lands and boat landings in Pools 7 and 8.

Commercial Freight Facilities. Shipping, receiving and transferring of freight from barges is carried on by fleeting sites and barge terminals. A “public” terminal is a facility which is available for use by any shipper/receiver wishing to have freight handled across the dock, and/or stored on the site, or with space available for processing that material on the harbor site. A “private” dock, or proprietary facility, is intended for the specific use of the owner or a lessee. A facility such as Robers Company or the City of La Crosse Municipal dock would both be considered to be public from a use perspective as either will accept short term contracts with a multitude of users, whereas a facility such as Holnam cement or AgriGrain Marketing are private docks as they only handle material for their company. Many private docks are configured and equipped to only handle a specific commodity, and could not accept other products.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 7 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
C1	Cozy Corner Cottages	W8071 CTH ZB-Onalaska Corner of CTHs ZB and ZN.	Commercial resort. Cabins and boat rental. Access is to Lake Onalaska.	Commercial resort. Cabins and boat rental.
C2	Clearwater Cabins	7605 CTH ZB-Onalaska	Commercial resort. Cabins and boat rental. Access is to Lake Onalaska	Commercial operation with 7 cabins for rent plus pier space for cabin renters.
L1	Trempealeau Landing	In Village of Trempealeau near downstream side of L&D 6RM 714.0L	Asphalt boat access ramp to Mississippi River Main Channel	Owned by Wis. DNR
L2	Second Lake Access	Second Lake is one of a series of lakes or flatwater areas in the Mississippi River bottomlands downstream from the Village of Trempealeau. All are reached by Lake Shore Rd. RM 713.0L	Asphalt boat access ramp to 23 acre lake, 7 feet maximum depth. Access to Mississippi River. Parking capacity approx. 11 vehicles. No toilet, water, shelter, or tables.	Owned by Wis. DNR
L3	Third Lake Access-North	Between Second Lake and BNSF RR RM 713.0L	Asphalt boat access ramp to 29 acre lake, 8 ft maximum depth. Access to Mississippi River. Parking capacity approx. 10 vehicles. No toilet, water, shelter, or tables.	Owned by Wis. DNR
L4	Third Lake Access-South	Between Second Lake and BNSF RR2 RM 712.8L	Asphalt boat access ramp to 29 acre lake, 8 ft maximum depth. Access to Mississippi River. Parking capacity approx. 20 vehicles. No toilet, water, shelter, or tables.	Owned by Wis. DNR
L5	Round Lake Landing	South of Third Lake-flows into Long Lake RM 712.4L	Gravel boat access ramp to 40 acre lake, 7 ft maximum depth. Access to Mississippi River. Parking capacity approx. 6 vehicles. No toilet, water, shelter, or tables.	Owned by U.S. Fish and Wildlife Service
L6	Long Lake Landing	Southernmost in chain of backwater lakes RM 712.0L	Concrete boat access ramp to 22 acre lake, 11 ft maximum depth. Access to Mississippi River. Parking capacity approx. 5 vehicles. No toilet, water, shelter, or tables.	Owned by U.S. Fish and Wildlife Service
L7	Lone Tree Landing	RM 706.3L	Gravel boat ramp access to Big Marsh, off channel of Mississippi River. One vehicle parking access and no facilities. Officially closed access, but still accessible and used.	Owned by U.S. Fish and Wildlife Service
L8	STH 35 Landing	South side of STH 35 Great River Road on Black River just east of Black River bridge and Trempealeau-La Crosse county line.	Gravel boat access ramp and 10 vehicle parking on Black River and eventually Mississippi River. Part of Van Loon wildlife area. No toilet, water, shelter, or tables.	Wis. Dept. of Transportation owns wayside. Maintained by La Crosse County Highway Dept. There are other unimproved or walk-in sites in the Van Loon area for launching canoes and small craft into Black River.

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**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 7 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
L9	Lytle's Canoe Access	Adjacent to Great River State Trail at north end of CTH Z in Town of Onalaska.	Canoe carry-in access to Black River complex. Small parking area serves both access to Great River Trail and river access. Vault toilet serves this facility.	Owned by Wis. DNR
L10	Homestead Landing	At the end of North Shore Dr., opposite Town park in the Homestead Addition.	On Black River. Walk-in canoe access via a 66 foot wide right-of-way across North Shore Drive from Town Park. Park itself has no water frontage, but has playground apparatus and picnic tables and limited street-side parking. The river at this point is shallow and can not accommodate large craft. The Black River is at the upper end of Lake Onalaska.	Town of Onalaska holds Corps of Engineers lease for shoreline.
L11	Brice Prairie Walk-in	On CTH ZB south of CTH ZN intersection. Access to upper reaches of Lake Onalaska. RM 705.0L, in Lake Onalaska.	Forty car parking area on CTH ZB widened by County. Area of shoreline carry-in is 0.33 acres. Ice fishing access.	Recently acquired by the Wisconsin Department of Natural Resources.
L12	Upper Brice Prairie Landing	CTH ZB, across road from Swarthout County Park.	Two lane concrete boat ramp with courtesy dock and 50 car paved parking lot, two double stall vault toilets. Sufficient shoreline for bank fishing access and picnic area. Access is to Lake Onalaska. Swarthout County Park across road from Landing has no water frontage, but has picnic shelter, tennis courts, volleyball court, and playground apparatus. Handicapped fishing facility.	Town of Onalaska maintains landing on shoreline leased from Army Corps of Engineers.
L13	Clearwater Landing	Adjacent to Clearwater Cabins on CTH ZB-Brice Prairie	Unimproved walk-in shore land access for canoes & small craft. Ice fishing access.	Town of Onalaska maintains 66 ft wide right-of-way (ROW) to reach Corps of Engineers owned shore land
L14	Mosey's Landing	Adj. to Schaefer's Resort on North Shore Lane near CTH Z	Two lane paved boat ramp, 11 car parking area. Drive in ice fishing access. Adjacent to commercial resort and boat livery. Closest access to Rosebud fish habitat area in Lake Onalaska.	Town of Onalaska leases land from U.S. Fish & Wildlife Service (USFWS). Most launch sites operated by Town also have a USFWS information kiosk.
L15	Dakota Landing	South side of City of Dakota, Minnesota	Boat access to Main Channel of Miss. River. Difficult land access across RR track	City of Dakota, Minnesota
L16	Fisherman's Road unimproved accesses	East side of La Crosse Municipal airport property on French Island. Fisherman's Road is at east end of Fanta Reed Road, then northerly along east side of airport.	Road leads from Fanta Reed Road north to tip of French Island and north of site L17 it is unimproved and poorly maintained, but accessible. A gate blocks the road after certain evening hours. Access areas across sand and poorly maintained ramps for small craft into Black River above dike.	Access to Lake Onalaska and Main Channel for shallow draft craft. Area is part of La Crosse municipal airport and is within La Crosse city limits. Controlled by Airport Board.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 7 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
L17	Fisherman's Road Landing	Improved access ramp at dike on Black River. Site is reached from Fisherman's Road, north of Fanta Reed Road.	Paved ramp and 8 car parking lot. Access to Lake Onalaska on north side of dike. Fish and Wildlife Service kiosk.	Best maintained and most attractive boat access site on Fisherman's Road. Operated by Fish & Wildlife Service. In addition to the gate on Fisherman's Road, another gate is in place on the access road to this site.
L18	Upper Spillway Landing	West side of French Island on Lake Onalaska side of dam which creates Lake. Reached by Spillway Drive. River Mile (RM) 701.7	Upper Spillway shares parking area with Lower Spillway landing. Upper landing gives access to Lake and Lower landing to Mississippi river sloughs. Upper Landing subject to wind fetch and siltation which produces shallow conditions.	Town of Campbell - under lease from Corps of Engineers. Corps of Engineers maintains dike which creates Lake Onalaska.
LC1	Larry's Landing	South side of Village of Trempealeau. On main channel, below L&D 6. RM 713.8L	Restrooms, groceries, gas, and outboard repair. Temporary docking for 2 boats and beaching area for small boats while using store or other facilities. Gravel surface ramp, parking for approx. 5 vehicles, and 15 slips for seasonal rental.	Commercial site in area of seasonal cottages south of Trempealeau village.
LC2	Red Sails Resort	W7301 North Shore Drive (CTH Z) -Brice Prairie	Commercial resort. Kitchenette motel, campsites, bar, boat rental. Paved boat ramp available with commercial arrangement.	Privately owned. Cabin renters bring their own boat or rent resort's boats. Each cabin has slip space.
LC3	Schaefer's Boat Livery	W7221 North Shore Lane-Brice Prairie	Commercial resort. Bait shop, rental cabins and rental boats and slips.	Cabin renters have access to slips for their own or rental boats. Daily rental of boats to public also done.
LP1	Dresbach Park Landing	Community of Dresbach, MN, off USH 61/I 90	Single lane wide, paved ramp with limited parking, adj. to Township park on Main Channel. Park has a picnic shelter, tables, playground apparatus, small sand beach, and portable toilets. Traffic hazard crossing CP RR mainline tracks.	Restricted to use for residents of Dresbach Township, MN
LP2	Nelson Park Landing	At north end of French Island on Lake Shore Drive.	Former County Park is now operated primarily by the Town of Campbell, 30+ acres. Concrete ramp has holding area for two boats in adjacent water. Paved parking lot serves ramp, park, and La Crosse Sailing Club. Boat ramp serves middle portion of Lake Onalaska.	Park has shoreline access for fishing and viewing Lake, and also has portable toilets, picnic tables, and ball diamonds.
P1	Upper Brice Prairie Shoreline	Entire shoreline of Lake Onalaska	Town of Onalaska has a lease from the Corps of Engineers. Shoreline is public and accessible to walkers although private homes adjoin the shore and have private dock facilities.	Town of Onalaska administers Corps of Engineers lease.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 7 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
P2	Fisherman's Walkdown	Eighty car parking area on Sunset Vista town road behind Marge's Restaurant. Restaurant is on STH 35-Great River Road. N5135 Hwy 35-Onalaska	Walk-down pedestrian access to shoreline. Steep wooded stairway from parking area to shoreline precludes easy carrying of boats or canoes. Blacktop bike path to bike trail from parking lot.	Primarily ice fishing access to Lake Onalaska. Parking area is maintained by County Highway Department. Ownership and maintenance of stairway is not clearly defined. Shoreline is leased by Town from Corps of Engineers.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
B1	Airport Black River Beach	Located on Fisherman's Road on east side of La Crosse Airport within City Limits, on Black River.	Improved sand beach with boat launch, approximately 2.7 acres. There are trash containers. No lifeguard on duty.	Site is located on City of La Crosse airport property within the La Crosse City Limits, but is leased to the Town of Campbell for operation as a beach. The Town performs routine maintenance functions.
B2	Black River Beach (Northside Beach)	North of Logan Street ramp, on Black River in City of La Crosse	Sand beach area with restrooms, bathhouse, playground, picnic grills, volleyball area, bank fishing. 5 acres. Life guards on duty during peak summer season.	City of La Crosse Park and Recreation Dept. In urban area with residential, restaurants, and other commercial uses nearby.
B3	Pettibone Beach	This facility is located in Pettibone Park just north of the Cass Street Bridge. Access is via the park road which intersects USHs 14/61 on the north, west of the bridge. The beach fronts on the main channel of the Mississippi River.	This sand beach on the main channel has an area of water roped off to assure safe swimming. A vintage bathhouse provides flush toilets and running water, showers, and clothes changing and locker areas. During the summer there are lifeguards on duty during the day and early evening.	This beach gives an excellent vantage point to view the panorama of central La Crosse across the river, and a place to view the passing commercial towboats and pleasure craft. The beach is a special feature within the larger Pettibone Park.
C1	Best Western-Midway Hotel/Resort	1935 Rose Street. Hotel and restaurant has boat slips and beaching space on Black River.	Forty-six transient slips (<i>with no boat services</i>), are available for guests at the full service hotel and restaurant. There is a beach area for swimming, and pull-up of small craft.	Full service conference hotel with restaurant and meeting rooms. Operators of the facility encourage transient boaters to access restaurant/bar operation, or stay in the hotel during a river transit.
C2	Powerhouse Marine	518 Logan Street-Located landward of Logan Street Ramp. Black River waterfront Black River Mile 1.9, above the Clinton Street bridge.	Boat engine repair, accessories, and parts. Facility does not directly access the water. Access for boat repairs is via liftout at the Logan or Clinton Street ramps, or trailered access via Rose Street.	There is dry land, indoor or outdoor, storage of boats available at this facility.
C3	Copeland Boat Stop	Located at north end of Copeland Park, on Black River	Leased by City to private operator for commercial operation the facility has 26 slips, mostly for boats available for short term rental, or transient use for people visiting north side area. A small store sells snack foods and bait. There are vendor installed portable toilets for boater use, although flush toilets in park are also available.	Commercial operation leases shore space in city park. Lease is "year to year" renewable each April - the number of open slips fluctuates daily depending upon boating traffic.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
C4	J.F. Brennan Co./Brennan Marine, Inc.	Black River Mile 1.3R820 Bainbridge French Island Located in Town of Campbell	J.F. Brennan is a marine construction and dredging company, operating several dredges and boats from this site on the Black River. The sister company, Brennan Marine (BMI), operates the La Crosse area barge fleet sites as well as switch boat service, barge cleaning, and dry dock service. BMI's 100'x70' 1,000 ton dry-dock is the largest north of St. Louis, and can handle a barge, or most of the towboats operating on the Upper River.	
C5	Allen's Boat Livery	Located in La Crescent, MN, South of USHs 14 & 61, on Blue Lake.	Facility used primarily by waterfowl hunters and ice fisherman for access to Blue Lake, and Mississippi River via single channel. The shallowness of Blue Lake limits use to small craft, hunters, ice fishing and local fishing. Wooden piers in poor condition and narrow dirt access ramp.	Commercial facility
C6	Pettibone Campground and RV Park	Located on Pettibone Island south of the Cass Street bridge, on the peninsula between the West Channel and the lagoon.	Operated by a commercial operator on a lease from the City of La Crosse, the site provides camping pads, primarily for camper trailers and motor homes. There is a time limit to insure turnover of sites. There is a small store with basic food and camping supplies. Although the entire campground is influenced by the water, there are no boat launch site within the campground.	
C7	Goose Island Boat & Canoe Rental	Goose Island County Park at Campground	Commercial concessionaire operating with County contract. Small store serves campground and transient visitors with snack foods and gas. Rental of canoes and row boats. Pier extends into water but no ramp at this location. Campground users with their own boats pull them up along the shore in this area. Campground is adjacent to this site. Fish cleaning shed is nearby	Commercial concessionaire has contract with La Crosse County to operate camp store, campground and small craft rental.
C8	Engl's Boat Livery	North side of Village of Genoa	Gravel surface ramp. No slips. Toilets available at boat rental office. No picnic or camping facilities.	Commercial facility.
F1	Former Mobil Oil site	Black River Mile 0.3R Site located on Copeland Ave. north of La Crosse River. Located in City of La Crosse	Land-side facilities are removed. Reuse will be commercial or natural recreation.	Historic over capacity site is barge emergency over capacity. Has not been used for "couple years".

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
F2	Isle la Plume Fleeting site	Miss. River Mile 696.4L Located in City of La Crosse across Main Channel from Hintgen Island fleeting site	Capacity for 15 barges, 3 wide by 5 long, amended to allow fleeting of 4 wide. In addition, can add 3 lengths by 4 wide - add 7 - Total 42.	Normally 20 barges are moored here. For past couple years fleet has been full to 42. Brennan Marine Inc. (BMI) leases from City of La Crosse for \$5,000/year.
F3	Harold Craig (Hintgen Island) Fleeting Site	Miss River Mile 696R-located adjacent to Hintgen Island in state of Minnesota.	Capacity for 15 barges, 3 wide by 5 long. Facility is owned by La Crosse County and administered by the County Harbor Commission.	State of Minnesota environmental laws apply to this site. Also known as "Broken Arrow". BMI Ind., Inc. leases for a base rate of \$13,200/yr. Adjusted annually with Consumer Price Index. 1999 rate is \$13,411.
L1	Black River French Island Landing -Site 22	This site is accessible off Fisherman's Road via a dirt road to a poorly maintained ramp on Black River.	Gravel access ramp with parking space for 8 vehicles with trailers. The shoreline accessible by Fisherman's Road, both north and south of the dike is publicly owned and accessible by fishermen and small craft launchers. Several sites are used but are in poor condition. This site is formally recognized, whereas some of the other sites are very informal.	Access is at City Water Well number 22. This is within the La Crosse city limits.
L2	Lower Spillway Landing	South side of dike at end of Spillway Drive. RM 701.7L. Access is to French Slough and Mississippi River	Two lane concrete plank ramp-share parking with Upper Spillway Landing. Well used facility gives entry to Mississippi River sloughs and the Main Channel of the Mississippi River in Pool 8.	Currently operated by Town of Campbell - leased from Corps of Engineers. The Corps of Engineers owns and maintains the dam which creates Lake Onalaska. Blacktop parking for 15-20 cars/trailer. Handicapped access - pier.
L3	Upper I 90 Landing	Minnesota Visitor Information Center at I 90/USH 61 interchange	Boat launch ramp with large parking lot that also serves visitor center. Visitor center, picnic tables, covered walkway and overlook, indoor toilets and running water compose the amenities at this site.	On-site parking for approximately 6 vehicles and trailers, plus use of visitor center parking lot. Site is maintained by Minnesota Department of Transportation.
L4	Lower I 90 Landing	South side of I 90/USH 61 interchange	Single lane launch ramp and 30 car parking lot. Beach and bank fishing area is also at this location. Canoe launching is possible at beach. Restrooms.	Site is maintained by Minnesota Department of Transportation.
L5	Richmond Bay Landing	East end of Goddard Street on French Island. Access to Richmond Bay.	Launch ramp at end of Town street. No parking except "on-street".	Town of Campbell operates.
L6	Logan St. Landing	At end of Logan St. on Black River in City of La Crosse.	Double-wide paved boat access ramp-shares 50 car parking lot with Clinton St. Landing. Space between Clinton and Logan Street ramps is leased by City to boathouse owners	City of La Crosse Park and Recreation Dept. Restrooms at Black River Beach are available to users of this ramp. Walking distance to restaurants.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
L7	Clinton St. Landing	North of Clinton Street at bridge to French Island and Black River	Double-wide paved boat access ramp-shares 50 car parking lot with Logan St. Landing. Space between Clinton and Logan Street ramps is leased by City to boathouse owners	City of La Crosse Park and Recreation Dept. Restrooms at Black River Beach available to users of this ramp. Walking distance to restaurants.
L8	West Copeland Veterans Memorial Park Landing	West bank of Black River south of Clinton St. bridge on French Island. This site is within the La Crosse city limits.	Two double wide concrete ramps accessing Black River. Paved parking lot, 100 vehicle capacity. Portable toilets are on site. Site is walking distance to restaurants and shopping.	Site is part of larger City of La Crosse owned property that was a former landfill. Most of land area is undeveloped with sandy soil and willow and native shrub cover. It is across the Black River from Copeland Park.
L9	Sportsman's Landing	Located north side of USHs 14/61 and State Highway 16 bridge on Minnesota bank of Mississippi River West Channel.	Paved ramp and parking for launch/recovery into West Channel of Mississippi River. Access to site is via Shore Acres Drive.	Maintained by Minnesota Department of Transportation.
L10	La Crosse Pettibone Boat Club Landing	Located on Barron or Pettibone Island, south of Cass St. bridge, within Pettibone Boat Club marina. Access is into mooring basin in lagoon, with entry into Main Channel	The Pettibone Boat Club leases space from the La Crosse Park Board. Club membership is not required to use this ramp. Ramp is a single width concrete slab. Parking is shared with general vehicles at the marina.	Public ramp
L11	Isle La Plume Ramp	Located in municipal marina on Isle la Plume	Two double-wide paved ramps. Parking is shared with marina in 100 car capacity lot, and along access road.	Public facility owned City of La Crosse.
L12	7th St. Ramp	2412 S. 7th on Swift Creek. South of Creek from Green Island Park. River Mile 695.3L	Double lane paved ramp with courtesy piers each side of ramp. Parking capacity approximately 48 vehicles. This facility is part of the Green Island Park complex. Restrooms and picnic area located across 7th St. bridge in main park.	City of La Crosse Park and Recreation Department
LP1	Upper Goose Island Landing	Northwest side of Goose Island County Park. Access into sloughs and backwaters of Mississippi River. RM 692.8L	Single lane gravel ramp with concrete planks at waterline. Grass/gravel parking area for 10 vehicles. Toilets, hand pump, and picnic tables and enclosed picnic shelter are a short distance away. The water depth is best off this ramp of all Goose Island ramps	La Crosse Co. Park Department leases land from Corps of Engineers.
LP2	Main Goose Island Landing	In Goose Island County Park, 500 feet north of the boat livery/concessionaire. RM 692.5L	Double-wide paved ramp with paved 35 vehicle parking lot. This is the closest ramp to the park entrance and campground.	La Crosse Co. Park Department leases land from Corps of Engineers.

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**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
LP3	Hunters Point Landing	At south end of Goose Island County Park. RM 690.2L	This site has a double wide paved ramp and a single width crushed rock ramp about 100 feet away. There is a 30 car parking lot, and two double vault toilets.	Operated by La Crosse County Park Department, coordinated with U.S. Fish and Wildlife Service.
LP4	Wildcat Park & Campground	Minnesota State Highway 26 just south of Brownsville, Minnesota. Access directly to Main Channel.	Houston County, Minnesota leases land from Corps of Engineers to operate park. Two lane paved boat ramp, sand swimming beach. 3 gravel parking lots for 50 cars/trailers, toilets, piped water, picnic sites and campsites are available on the 13.7 acre park.	Houston County, Minnesota, operates park with Corps of Engineers lease.
LPB1	Stoddard Park Landing	South end of village	Village leases land from Corps of Engineers. One lane boat launch ramp and swimming beach. Water access is via narrow channel through wide shallow stump field to Main Channel of Mississippi River. Access is to new island habitat project being developed in Mississippi.	Ramp and park operated by Village of Stoddard with lease from Corps of Engineers for use of federally owned riverbank.
M1	Sias Isles Boat Livery	107 1st Ave. South, Onalaska. Upper end of "lower" Black River at spillway	Commercial marina and crushed rock boat launch ramp available to public for a fee. Limited to small boats due to shallow water. Ten car parking lot serves ramp. There are 25 boat slips and a small fishing and boat supply store, with rental boats. This is the northern-most ramp on the lower Black River below dike that forms Lake Onalaska. Access is into Mississippi River Pool 8 via Black River.	Privately owned.
M2	Black's Cove Marina	2003 Rose Street La Crosse on north side of Black's Cove. Black River mile 2.6	Electricity, water, pumpout, showers, and restrooms are available. Harbor depth- 5 ft. There are 48 slips that accommodate boats up to 50 feet long. Transient use can be accommodated. Up to 5-6 boats.	Commercially operated marina for seasonal slip rental and limited transient use. Located on north side of La Crosse. Restaurants and motels within walking distance.
M3	Al's Marina	1311 La Crescent St. Town of Campbell, French Island, on French Slough. Black River Mile 0.5	This facility primarily caters to local seasonal renters with 26 slips, and sells gasoline and miscellaneous snack foods. It is located on the west side of French Island.	Commercial marina. Low water is a problem. Owner says channel needs dredging.
M4	Fisherman's Diner	136 Clinton St. Town of Campbell French Island on Richmond Slough (<i>also known as Catgut Slough</i>)	Approx. 40 slips for seasonal rental and for transients using eating/dining/retail facilities of Fisherman's Diner	Small commercial marina and transient facility. Restaurant, and fishing supplies available to transient boaters.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
M5	French Island Yacht Club	132 Marina Drive. Access via Bainbridge Street south of Clinton Street on French Island. Access to Richmond Slough.	Private marina with 24 owner's slips and 13 rental slips - no transient slips. Concrete boat ramp available for use for a fee to private operator. No store, fuel, or other amenities.	
M6	North BayMarina	127 Marina Drive, French Island, on Richmond Slough	Marina with 150 slips for seasonal and transient mooring (<i>45 designated for transient use</i>). Fuel, water, pump-out and restaurant. Lift-out capability, out-of-water boat storage. Full service engine, drive train and hull repairs.	Private deep water landing is on site.
M7	Bikini Yacht Club	Located on Pettibone (<i>Barron</i>) Island behind resort motel complex at 621 Park Plaza Drive (USH 14 & 61, STH 16) on West Channel of Miss. River	Commercial marina, seasonal and transient docking, with approx. 153 slips (<i>40 designated for transients</i>). Channel and harbor depth is 12 feet. Ship store, restrooms/showers. pump-out, repair service. Club is part of lodging, dining resort complex. Indoor and outdoor swimming pools. Harbor tour boat <i>Island Girl</i> based from here.	Commercial operation.
M8	Pettibone Boat Club	Located on Pettibone Island south of Cass Street Bridge, with water access primarily on inlet west of Main Channel	Commercial marina on land leased from City of La Crosse with approximately 250 slips for seasonal renters and 15 for transient use. Some shore space is sublet to individual boat owners to maintain their own piers. Restaurant and bar on-site is open seasonally. Transient boat reservations are requested. Fuel, toilet and showers, pump-out and public boat ramp located at this location. Club membership not required to use the landing.	Commercial business leases space from City of La Crosse Park Board.
M9	La Crosse Municipal Marina	Located on Isle La Plume south of Houska Park and sewage treatment plant. Located on bay with direct exit to Main Channel.	On City owned land, operated by leasee, doing business as La Crosse Harbor Services. There are 185 slips, mostly for seasonal renters and a launch ramp for public use. Pump-out, gas, restroom, and showers, laundromat, houseboat rentals, ships store, and boat and engine repairs. Boat on-land storage. Refreshments and bar is operated seasonally.	Commercial operation with lease on site from City Parks and Recreation Dept.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
M10	Chut's Landing	2700 S. 15th St. at Gladys St. and Huber Ct., on Swift Creek/Bluff Slough.	Commercial marina with approx. 110 slips, primarily for seasonal rental by local boaters (<i>40 slips not seasonally rented in 1999</i>). On Bluff Slough, approx. 1.5 miles from Main Channel. Gas and snack food items available.	Commercial marina, with limited services.
M11	Lawrence Lake Marina	On Minnesota State Highway 26, 7 1/2 miles south of La Crescent, MN, approx. 1 mile north of Brownsville. Mississippi River Mile 690.4. Access into Lawrence Lake off Main Channel.	Commercial marina holding lease on Corps of Engineers land. Forty slips, restrooms, store, fuel, and pump-out.	Commercial operation on shore land leased from Corps of Engineers.
M12	Genoa Harbor	In Village of Genoa, west side of STH 35. Access to Main Channel is under a low clearance railroad trestle. Only small open craft can use harbor.	Depth in harbor is 4 to 5 feet, limiting access factor is low height of railroad bridge between harbor and main river channel. Site has an access ramp and piers for mooring 4 or 5 small craft.	Village of Genoa maintains facility.
M13	La Crosse Sailing Club	In Nelson Park at north end of French Island on Lakeshore Drive.	Sailing Club leases shoreline separate from Nelson Park lease. Common paved parking lot shared with Nelson Park and boat ramp.	Lake Onalaska is one of few areas on Mississippi River where sailboats can operate.
MC1	Water's Edge Motel & Marina	Located on west side of Village of Stoddard, Wisconsin at 210 N. Pearl St. Narrow navigable channel from Main Channel winds through shallow stump fields to this facility.	Commercial marina with adjacent motel. Transient docking, access ramp, restrooms and showers, laundromat, and courtesy car to restaurant in village. 35-40 slips total. Most boats here are somewhat transient.	Commercial facility
P1	Copeland Park	Located on the east bank of the Black River, south of Clinton St. bridge. Copeland Ave is on east side of park and St. Cloud St. on south, and Copeland cuts through part of park as it becomes a one-way south-bound arterial. Black River Mile 1.7	20 acre, city-wide park. Black River waterfront for walking and fishing. Features include preserved locomotive, caboose and railroad tower, wading pool, covered hockey rink/group shelter, restrooms, boat rental and mooring, two playground areas, and lighted ball diamonds. Park is across Black River from City's West Copeland boat ramp and park.	City of La Crosse Park and Recreation Department. Commercial area and restaurants are nearby north of Clinton St.

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**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
P2	Riverside Park	Located at the foot of State Street on the Main Channel of the Mississippi River just below the entry of the Black and La Crosse Rivers into the Mississippi.	This is the main “front door” park of the City of La Crosse. It is a community-wide park approximately 13 acres in size. Feature at the park include a band shell, small gazebo, piped water and restrooms, and a river walk with lighting and benches. There is a 25 foot tall sculpture of a Native-American, commonly referred to as “The Big Indian”. This figure guards the place where three rivers meet, an important location in native history.	There is a concessionaire stand which provides light meals during the summer. The city-wide “Riverfest”, a major festival held over July 4th weekend, occurs at this location. The La Crosse based steamboat <i>Julia Belle Swain</i> is docked at the south end of the park, and the excursion boat <i>La Crosse Queen</i> is docked at the north end, near the Big Indian. The overnight excursion steamboats of the Delta Queen company all land at the south end of the park when they visit La Crosse.
P3	Pettibone Park	Located on Pettibone Island (formerly <i>Barron Island</i>) north of USHs 14 & 61 and STH 16	This 167 acre wooded area occupies most of the island north of the highway linking La Crosse and La Crescent. It is a city-wide park with woods, wetlands, lagoon, river frontage on Main Channel and West Channel, bank fishing, pagoda gazebo, picnic tables, and grills. Commercially operated motorhome campground operating with lease from City of La Crosse occupies most of south part of the island.	City of La Crosse Dept. of Parks and Recreation. East side of park affords panoramic view of downtown La Crosse and city waterfront across the Main Channel. Commercial operations from Black River mouth to north end of Isle la Plume are easily visible.
P4	Houska Park	700 Houska Park Dr., located on Isle La Plume north of City wastewater treatment plant. Shoreline is directly on Mississippi River Main Channel on west side of park. RM 897.2L	City-wide park, 14 acres, with riverfront on Main Channel opposite scenic, wooded shoreline. Bank fishing, picnic shelter, flush toilets, running water, playground apparatus, wading pool, baseball field. Accessible by motor vehicle from south on Isle la Plume or via walking/biking across Market St. foot bridge.	City of La Crosse Department of Parks and Recreation. Hintgen Island fleeting site is visible across Main Channel.
P5	Green Island Park	2312 S. 7th St. on Swift Creek	Neighborhood park, 7 acres, with water frontage on south end of Swift Creek and bank access to Swift Creek and sloughs. Also includes playground, ball diamond, picnic shelter, restrooms and enclosed heated ice arena for organized youth hockey league.	City of La Crosse Park and Recreation Department
P6	Gundersen/Lutheran Medical Ctr. Walking Paths	South end of Gundersen / Lutheran property on Swift Creek/Bluff Slough	Fitness walking trail (2,837 ft) with exercise stations, located on 20 acres of hospital grounds, with water frontage on Swift Creek/Bluff Slough. Paved walking/biking trail is open to public. Wooded and native cover areas along shore of Swift Creek provide bank fishing, or canoe launching capability. Parking in hospital lot	Non-profit medical center. Outdoor recreation facility and waterfront open to public use to encourage physical fitness.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
P7	Shady Maple Walkdown	West side of STH 35, approx. 2 miles north of Stoddard Village limits. River Mile 686.5L	Facility consists of a 15 car parking lot on the west side of STH 35, and a steep flight of wooden stairs down to the Mississippi River level. A canoe could be carried down the steps, but principal purpose is for walk-in ice fishing or bank fishing access. At base of steps access to river bank is across main line double track Burlington Northern Santa Fe Railroad line.	Wisconsin Department of Transportation maintains facility.
P8	Reno Walkdown	Minnesota State Highway 26 at point where west end of Dam 8 ties into Minnesota shore at community of Reno.	Walk-in access from highway 26 to river bank. Access includes crossing of IMRL railroad.	Minnesota Department of Transportation.
R1	Lauderdale Condominiums	Located on north shore of an inlet off the upper Black River, approximate Black River mile 3.9. Units are accessible from Onalaska's 2nd Street	The 36 living units, accessible by a private street, Lauderdale Place North, west from 2nd Street in Onalaska, each have access to a common area with 36 boat spaces. One of the selling points of this condominium is the private boat access that is provided to the owners.	
R2	Hidden Harbors Condominium	North of Lauderdale Place, on bay leading into upper Black River. Located on the east bank of the Black River. Site is in the City of Onalaska.	There are 28 living units. The condominium association maintains a pier, with lateral extensions, which provides mooring for 28 boats. One of the selling points of these condominiums is the private boat access that is provided to the owners.	
R3	Lauderdale Place Residences	Approximately 34 private single-family residences located on Lauderdale Place and Lauderdale Court. Lauderdale Place is boundary between cities of Onalaska and La Crosse. Lauderdale Place extends west from Onalaska's 2nd Street.	Each of the residences has private shoreland and most have improved private piers or levy walls. Private boat ownership is high and this site generates recreational boating traffic into the Black River	

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
R4	The Moorings	This condominium is accessible from George Street in La Crosse, just south of the Onalaska city boundary. It is located on the same Black River bay as the properties on the south side of Lauderdale Place.	This condominium complex is still being developed. When completed it will have 71 dwelling units and 47 boat slips which will be available for those owners who choose this option.	
R5	River's Edge Apartments	A 138 unit complex located at 401 Gillette Street, west of Rose Street, with river frontage on the Black River, approximately 2 miles above its entry into the Mississippi at Riverside Park.	This large apartment complex has 64 boat slips available for rent to tenants. Apartment residency is required to rent a slip, and there are no services provided other than boat mooring.	
R6	Riverswalk-Old Northport Condominiums	This condominium complex is located at 1523 Rose Street just south of Gillette Street and the River's Edge Apartment complex	The condominium complex includes living units in an old historic structure and in new twindominium type units. There are 32 boat slips available for purchase by the residents.	
R7	Bayside Court Condominiums	This condominium complex is located at 3300 East Avenue South. It was formerly known as Sunset Bay Condominiums.	There are 24 living units and each unit includes access to a boat slip, with water access into Bluff Slough, on the south side of the city of La Crosse.	There are several other condominium and apartment complexes in this area of East Avenue South which have property extending to the water front, but this is the only complex which has developed boat access.
R8	Shore Acres Subdivision	Located in La Crescent, Minnesota on the west bank of the Main Channel, either side of the Canadian Pacific Railroad bridge, between River Miles 699 and 701. Shore Acres Road extends from USHs 14/61 and State Highway 16, commonly called "The Pike" to the north along the Main Channel approximately 2 miles.	There are approximately 65 private residences located along this road, each with their private boat piers and access to the Mississippi River	In the past there was concern about bank erosion caused by commercial tow boat maneuvering through the Canadian Pacific Railroad bridge.

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**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
R9	Hiawatha Estates-Nakomis Avenue	Town of Campbell-Hiawatha Island. North on Nakomis Avenue from Clinton Street to end. Cherokee Avenue extends north and west from Nakomis. Approximate Black River Mile 1.7-2.8.	This residential area has about 70 single family homes, each with its own boat slip and water frontage, plus an 11 unit apartment building with 8 slips. Water access is either to the Black River for properties on the east side of the street, or Richmond Bay for properties on the west side including those on Cherokee Avenue, accessible from Nakomis	
R10	South 7th Street-Hanifl Road	This street extends south from Green Island within the City of La Crosse for approximately 1/2 mile and another several hundred feet into the Town of Shelby where it dead-ends. Houses on this street all have water-frontage on Bluff Slough	Each private residence has piers or water access for boats, and there is a 36 unit apartment building with approximately 20 boat slips, all with access to Bluff Slough and the Mississippi River	Although studies show boats kept at "private docks" are less likely to actually go onto the river than boats that are launched, the increasing number of these private docks creates a potential for increased recreational traffic volume in the immediate Port of La Crosse area.
T1	City of La Crosse North City Dock	Black River Mile 1.4LSouth end of Copeland Park, at end of St. Cloud St. Located in City of La Crosse	Publicly owned general public use dock. Primarily used by Skipperliner boat builder for launching boats and Trane Co. for heavy machinery shipment. There is no rail access to the site. In 1997 Hanke Inc. contracted to use the facility for the receipt of pig iron and bagged graphite. They erected a woven wire fence around the facility and agreed to allow other short term users access to the dock.	Leased to Hanke, Inc. \$5,000/yr. plus 25 cents/ton over 10,000 tons.
T2	Hydrite Chemical Co.	Black River Mile 1.3L701 Sumner St. Mainland side Located in City of La Crosse	Receipt and storage of liquid caustic soda by barge and rail. Rail access by CP RR. About 20 barges per year are received at this dock. Early and late in the shipping season barges received here usually first are taken to the Westway dock to have live steam piped into them to improve commodity flow.	
T3	Midwest Industrial Fuel Upper Dock	Black River Mile 1.2L 615 Sumner St. Mainland side Located in City of La Crosse	Receipt and storage of asphalt by barge and rail. Rail access by CP RR. This site, when not in actual use receiving product, is also available for temporary barge fleeting. Total fleeting capacity is 9 to 12 barges.	
T4	Midwest Industrial Fuel Lower Dock	Black River Mile 1.2L615 Sumner St. Mainland side Located in City of La Crosse	This dock is no longer used for transfer of product. Riverside used for overflow fleeting, with BMI maintaining the mooring structures.	Not used for fleeting on regular basis.

**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

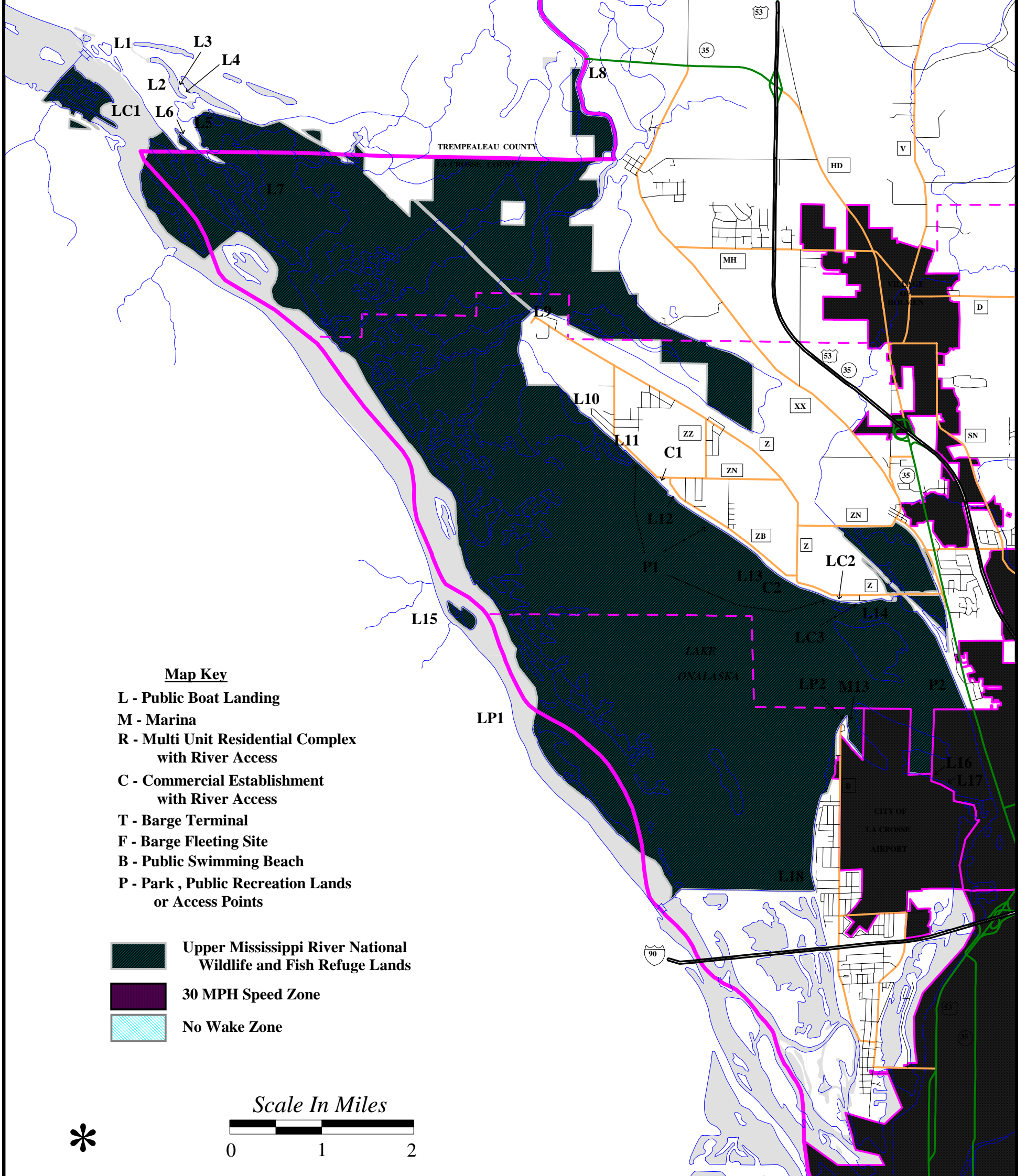
POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
T5	Westway Trading Company	Black River Mile 1.2R411 Bainbridge French Island Located in Town of Campbell Storage tanks are on the west side of Bainbridge Street, but facility to receive liquid cargo, and provide steam for facilitating liquid flow is on the east side of the Street, fronting on the Black River. Company rents space from F. J. Robers Co.	Vegetable oils received via barge and rail, stored and processed on site. Shipped out by truck. Live steam generated at this facility is used to heat the cargo to flowable consistency, and this capability is sometimes rented by other shippers, such as Midwest Industrial Fuel, to improve commodity flow for their incoming loads.	
T6	F. J. Robers, Co.	Black River Mile 1.0R816 Bainbridge French Island Town of Campbell	General 720 foot sheet pile public dock with 38 acres land slide for receipt, storage, and shipment of wide variety of bulk dry products: coal, road salt, pig iron, cottonseed, and aggregate. Rail access is Canadian Pacific RR (CP). The storage area for dry bulk commodities meets all current Department of Natural Resources water quality regulations. BMI leases part of this waterfront for fleeting and barge cleaning and repairs.	
T7	Agri-Grain Marketing (operator for Cargill)	Miss. River Mile 697.7L416 S Front St. La Crosse Located in City of La Crosse	Receipt of grain by truck, shipment by barge with no rail access. Approximately 160 barges annually are loaded with corn or soybeans, mostly from within a 50 mile radius of La Crosse. This is about 240,000 tons, or 8,000,000 bushels of grain each year. Assuming a 50/50 breakdown between corn and beans, and yields average for this area, this is the production from 250,000 acres of farmland.	

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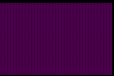
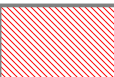
**TABLE 3.1
PORT OF LA CROSSE, RIVER USE INVENTORY**

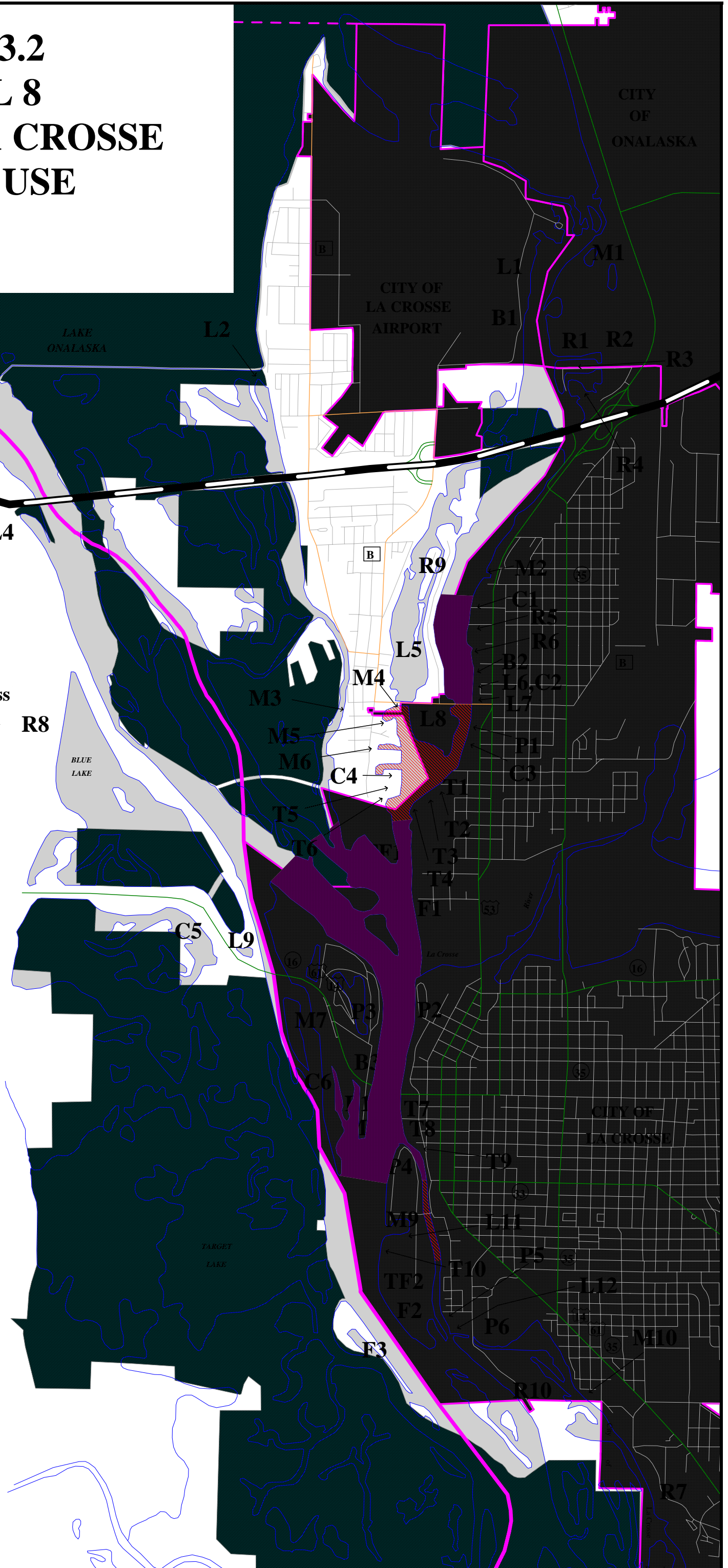
POOL 8 - MISSISSIPPI RIVER				
Map Key	Name of Site	Site Location	Description	Other Site Information
T8	Holnam Cement	Miss. River Mile 697.5L 618 Cross St. La Crosse Located in City of La Crosse	Receipt of cement by barge, shipment by truck with no rail access. Cement is brought up-river by barge either from manufacturing facilities at Clarksville, MO, or imported through the Lower Mississippi ports from ocean freighters. It receives about 100 barges per year. The fact imported cement is received from a freighter in the New Orleans-Baton Rouge area, where barge storage capability is limited means as many as 15 barges at one time may come into La Crosse destined for Holnam. The plant can only handle two barges at their dock at one time, and unloading one may take 8 hours, so storage or "fleeting" space must be found for the barges in the Port of La Crosse.	
T9	Division Street Dock	Miss. River Mile 697.4L End of Division Street. Located in City of La Crosse	Former active public dock, now used for receipt of barge hauled pipe for La Crosse Plumbing, whose storage yard lies adjacent. No rail access. This site currently is not a major barge user.	
T10	Hanke Terminals	Miss. River Mile 696.4L On Isle la Plume Located in City of La Crosse	Privately owned public terminal on Isle La Plume receives barge borne dry bulk: coal, road salt, pig iron, aggregate. No rail access. This site was originally owned by the City of La Crosse and was sold to George Jollivette in 1987 as part of a land trade between him and the City to insure there would be no additional barge terminal operation on the east bank of the lower Black River.	
TF1	NSP Dock-French Slough	Black River Mile 0.7R at south end of French Island. Located in City of La Crosse	Rarely used for receipt of fuel oil for the power plant. Primarily used for overflow temporary storage of up to 9 barges, and seasonal storage of local excursion boats	Have fleeted 15 in past couple years - DNR permits emergency fleeting only.
TF2	City of La Crosse Municipal Dock-Isle la Plume	Miss. River Mile 696.4L South end of Isle la Plume Located in City of La Crosse, across Main Channel from Hintgen Island fleeting site	Publicly owned public dock. Site not used recently for cargo handling. Waterfront used for barge fleeting. No rail access.	4 permitted fleeting sites with 4 additional permitted on individual request if needed for a total of 8. Leased to Brennan Marine, Inc. \$3,000/yr. plus 25 cents/ton over 10,000 tons.

MAP 3.1 POOL 7, DAKOTA, DRESBACH AND LAKE ONALASKA AREA RIVER USE



MAP 3.2 POOL 8 CITY OF LA CROSSE RIVER USE

- Map Key**
- L** - Public Boat Landing
 - M** - Marina
 - R** - Multi Unit Residential Complex with River Access
 - C** - Commercial Establishment with River Access
 - T** - Barge Terminal
 - F** - Barge Fleeting Site
 - B** - Public Swimming Beach
 - P** - Park, Public Recreation Lands or Access Points
-
-  Upper Mississippi River National Wildlife and Fish Refuge Lands
 -  30 MPH Speed Zone
 -  No Wake Zone



4. WATERBORNE COMMODITY MOVEMENT AND RECREATION BOATING TRENDS

Grain: The overall commodity classification of “Farm Products” which includes” various types of grain is the predominant engine which drives the Upper Mississippi River waterborne transportation system. The various grains are mostly moved down river, principally driven by the export market through Lower Mississippi and Gulf ports. Railroads, particularly since deregulation in the early 80s, have continually offered aggressive price competition for this movement, especially for elevators and gathering points located off-river. On the Upper Mississippi River in general **Corn** is the predominant grain, with 68 percent of the downbound barges loaded with “Farm Products” moving through Lock and Dam 8 being loaded with corn. Other major products within the overall Farm Products group are “**Oil seeds, Flax seeds and others**”. There is also strong upbound movement of farm products with various processed food products being the most significant. With the exception of 1993, the year of the continual flood, there has been no clear trend in the downbound farm product movement, with international economics being one of the largely uncontrollable factors governing the total amount shipped out of the Upper Midwest by any mode. Upbound movement, while less than downbound, and more apt to be domestic trade, has also been steady with no clear trend.

The accompanying table shows the number of barges and tonnage of “Farm Products” moving through Locks and Dams 7 and 8, bearing in mind corn and oil seeds are the predominant downbound products within this overall classification, with processed food products being the single largest commodity moving upriver, but with corn still being a strong component of the mix.

Locally, within the Port of La Crosse, the largest grain shipping terminal is the AgriGrain Marketing elevator on the Mississippi River main channel north of the Cass Street bridge. This is operated for Cargill, the largest North American grain trading company. Their business in La Crosse is approximately half corn and half soybeans gathered from a relatively small radius of about 50 miles from their terminal. In the early 90’s a grain shipper contracted to operate from the F. J. Robers Terminal on French Island, but that movement has been idle for several years. In 1998 354,000 tons, which can most likely be attributed to grain, was handled through the Isle La Plume fleeting site. At a traditional loading of 1,500 tons per barge that amounts to 236 barges. Historically this facility has loaded about 160 barges per year, so even considering the “Unknown” nature of some of the 354,000 tons, it still appears there is an increase in outbound grain at the Port of La Crosse.

Inbound farm products at the Port of La Crosse include cottonseed, with 18 barges carrying 18,000 tons arriving during the 1998 shipping season. This material is processed into a high protein cattle feed supplement. Seven tank barges were shipped out loaded with food quality vegetable oils. This product is received by rail, and consolidated in tanks at La Crosse for other markets. Both of these products are relatively new in La Crosse and no trend has been established, although the vegetable oil facility used to handle inbound molasses in tank barges, and the level of outbound oil shipment is about equal to the former inbound product in number of barges.

Coal: On the Upper Mississippi River system upbound coal movement through Lock 8 fluctuated, but gradually moved upwards from 1989 to 1994, from 444 barges and 646,000 tons to 589 barges and 924,484 tons. In 1995 the number of barges through the Lock was significantly lower, at 381 barges, but subsequently has again been slowly upward, with 1998 seeing 579 barges and 882,548 tons. It is assumed that upbound coal is “southern” coal which in general is more apt to contain materials which cause air pollution when the coal is burned. Traditionally coal bound for Upper Mississippi River power plants and ports has been rail hauled from the mines to transloading facilities on the Ohio and Illinois River systems, and moved up the Mississippi River by barge.

Downbound coal, through Lock 7 has declined noticeably over the last ten years. If it is assumed this coal is “western” coal, which is judged to be a cleaner burning coal, then possibly this decline in its transport by barge reflects the competitiveness with which the railroads have pursued this traffic and sought direct mine to power plant rail links rather than transfer to a rail to water transloading point on the Upper River.

Locally, within the Port of La Crosse, the receipt of inbound coal from down river locations is a relatively insignificant part of the riverborne commerce. In 1998, 24,000 tons was received, which is approximately 7 barges. This coal is primarily steam coal used at industrial or institutional power plants as Trane Company, UW-La Crosse, and Fort McCoy. The tonnage remains fairly steady over the years although individual contracts with end users may vary.

Chemicals: One chemical distributor in the city is a regular user of barge transportation and in 1998 there were 19 barge loads, or 28,500 tons, of product delivered at their private dock. Over the last three years the number of barges has gradually been increasing. These barges transited through the Isle La Plume fleeting site.

Other: Other products which are regularly received by barge at the Port of La Crosse are:

Highway Salt: In 1998, 58 barges, totaling 87,000 tons, were received. Highway salt is a traditional product received at La Crosse and distributed to municipalities and counties within a large market area, but there is no clear discernible trend. Information from other sources suggests that environmental concerns have reduced the amount of salt used compared to several years ago, and a mild winter can reduce the overall need to restock the following year; but shipping trends do not strongly reflect this.

Cement: On the Upper Mississippi River system in general this product is the major component in a larger commodity classification called “Processed Materials”. Other sub-categories are fabricated metal products and primary non-ferrous metal products. On the Upper Mississippi River system in general no clear movement trend can be observed over the decade of data collected at Locks and Dams 7 and 8.

Cement is the second largest commodity handled at the Port of La Crosse, with 258,000 tons, or approximately 172 barges in the shipping season. Not only has the total tons of cement received at La Crosse been gradually upward over the last several years, but the manner of its receipt has also changed. Domestic demand for cement often outstrips domestic production capability and imported cement is purchased. When a ship load of cement arrives at a Lower Mississippi or Gulf port it is economically advantageous to the shipper to unload it as quickly as possible. Since barge fleeting space at these Lower River ports is always at a premium, the product is usually made up into solid tows and distributed in large blockings of barges to the upriver customer. At the Port of La Crosse this results in possibly a full 15 barge tow arriving at one time for a customer which can only handle two barges at their dock at one time; one being worked and one in storage. This commodity and its method of shipment is one of the reasons for the increased fleeting space demand in the Port of La Crosse. The cement is shipped by truck from La Crosse to a wide variety of destinations depending upon market demand.

Pig Iron: Pig Iron would appear to fit into the overall commodity classification of Crude Materials. Significant movement of Pig Iron through the Port of La Crosse has only about a three year history. The reduction of riverborne traffic on the Illinois River system about three years ago due to major lock rehabilitation caused shifting of traditional traffic patterns, and a distributor of pig iron to Upper Midwest foundries and mills began using La Crosse to receive this product from downriver points, often South American imported. Although the Illinois River has returned to full use, a new traffic lane has been established. The year 1998 was remarkably heavy, and analysts do not expect to see in 1999 the 96 barges/144,000 tons of pig iron that was moved through the Port of La Crosse in 1998. The product arrives by barge and is shipped by rail or truck to many destinations.

Petroleum: Petroleum and related product movement on the water system has been affected by the federal legislation and environmental regulations, principally the Oil Pollution Act of 1990 (OPA90), primarily centered in the Environmental Protection Agency, and the subsequent involvement of individual states in the tightened environmental protection standards. In Wisconsin this has been centered in Chapter 292, State Statutes Remedial Action. This and similar laws in other states, has had a major impact on petroleum product movement and terminal operation to the point that it has become uneconomical to operate smaller or older terminals. The Mobil Oil transfer facility and tank farm in La Crosse is a good example of the type of facility that was affected, and the drop in overall petroleum product movement on the Upper River reflects the impact OPA90 has had, not only on La Crosse but on petroleum transport nation-wide.

Asphalt shipped to a distributor in La Crosse on the Black River remains one of the few petroleum product movements in the Port of La Crosse. These shipments arrive by a dedicated tow, and are pumped out in about a 12 hour period during which the entire tow and towboat remain on-site at the asphalt terminal.

Other product groupings moved on the Upper River in general which have no regular or established movement pattern in or out of the Port of La Crosse include **chemicals** (*other than the movement already discussed for La Crosse*). The biggest single product moved on the Upper River is fertilizer for commercial farming use. As with most products, annual figures vary up and down, but a gradually increasing trend can be observed in this broad category over the decade.

Manufactured Equipment: This commodity group includes all manufactured equipment and machinery. No doubt some of it is part of the hardware used simply to maintain the River's commercial shipping infrastructure. Movement of these products has not been a significant contributor to the overall traffic load and no clear trend is observed. The boats and boat hulls that are manufactured in La Crosse, and launched directly into the River for transport to the customer, or additional fitting out are classed in this commodity grouping.

The terminals which originate or receive the water-borne products are inventoried in Table 3.1.

Table 4.2 at the end of this chapter displays typical barge borne commodities on the upper Mississippi River.

La Crosse County Boat License Registration Trends

Boat license registrations in La Crosse County increased from 8,975 in 1993 to 9,474 in 1998, an increase of 499 or 5% during this five year period. The most significant growth occurred between 1997 and 1998 when an increase of 193 licensed boats occurred. The majority of these boats are likely to impact the river traffic levels in Pools 7 and 8 but not to a degree that warrants concern at this time. Table 4.1 below shows the long term trend in licensed boats going back to 1980.

Year	1980	1990	1993	1994	1995	1996	1997	1998
# of Licensed Boats	8,218	9,450	8,975	9,086	9,203	9,289	9,281	9,474

Recreational Boat Use Trends

Several studies have been done by various agencies or groups in the decade of the 1990s to attempt to learn recreational boating trends. Recreational boating on the Mississippi River is a major economic factor to many villages along the River. Direct economic benefit from commercial barge traffic through barge facilities is a feature of only four of the eighteen incorporated communities adjacent to the Mississippi River in the Mississippi River Regional Planning Commission's seven river front counties. Each of the 18 communities has at least minimal facilities for recreational boats, as do several unincorporated areas. The recreational boat facilities that are available in Mississippi River Pools 7 and 8 are inventoried in Chapter 3. Various studies which relate to recreational boating demand in the La Crosse area are reviewed in this plan.

SUMMARY OF 1996 STUDY OF WATER-BASED RECREATION ON THE UPPER MISSISSIPPI RIVER, POOLS 7 AND 8

The following is a summary of a survey included in a report titled; A Study of Water-Based Recreation on the Upper Mississippi River (Pools 7 and 8). This study is dated September 1996 and was conducted by the U.S. Army Corps of Engineers Waterways Experiment Station.

During the summer of 1994, late May through mid August, a combination of survey procedures were used to obtain boater responses. On-site interviews were conducted at access areas and questionnaires were mailed out. A total of 335 exit interviews were completed at public launch ramps with only eleven (11) refusals occurring. A total of 932 questionnaires were mailed out and 560 were returned during the course of the study. Dock users received 410 with a 67% adjusted rate of return, 350 were sent to marina boaters resulting in a 67% adjusted rate of return, and lock users received 172 questionnaires resulting in a 65% adjusted rate of return. A total sample of 895 boaters was obtained.

Ramp Users are defined as people who trailer their boats to an access site and launch into the river each time they go boating.

Dock Owners are defined as a shoreland owner and lives, or has a cottage, on the river shore and keeps their boat in the water or easily launchable, at a pier on their property.

Marina Users are comprised of people who rented marina space and kept their boat there on a seasonal basis.

Lock Users use their boats to travel between pools, and their place of origin, whether ramp, dock or marina, becomes secondary once they transit out of their home pool.

Experience Level of Boaters:

- The majority of all four boater groups have over five years of experience. The dock and houseboat owners have over 20 years, and they averaged nearly 27 years of experience.

Frequency of Use:

- Dock owners and marina boaters use the river most frequently, with 43 and 38 days respectively a year (*season*). Ramp and lock users average 13 and 9 days respectively.
- Weekday/Weekend day use is approximately equal, with dock and ramp boaters use greater during the weekdays. The others tend to use the river more on weekend days.

Length of Visits:

- Sixty percent of all boaters spend between 2-6 hours on the river during their last outing with 20% of marina boaters spending more than 10 hours during their last outing. Sixty percent of lock users spent more than one day during their last outing and 13% spent four or more days on the river each outing.
- Seventy-one percent of lock users reported passing through Pools 7 and 8 with 29% stating Pools 7 and 8 as their primary destination.

Distance Traveled to the River and State of Residence

- Eighty-seven percent of ramp users are Wisconsin residents. Minnesota residents reported 9% ramp use with Iowa and other residents at 2% each.
- Fifty-four percent of ramp users are local residents (*e.g. La Crosse, Onalaska, and Campbell*) and approximately 66% reported living within 10 miles of the river. Eighty-eight percent lived within 25 miles, 10% traveled more than 100 miles collectively and they averaged about 32 miles traveled to the river.
- Marina boaters are primarily local residents and live within an average of 22 miles of their marina slips. Seventy percent live within 10 miles, 83% with 25 miles, and only 8% travel more than 100 miles.

Type of Boat Used:

- Fishing boats are the most numerous type of boat at the ramp and private docks, comprising 58% and 46% respectively. Fifteen percent of dock owners have pontoon boats with runabouts/ski boats making up most of the remainder of those two groups.
- Runabouts/ski boats are the most common type of boat at the marina. Houseboats and cabin cruisers are also numerous, together comprising approximately one-half of marina boats.
- Lock users reported cabin cruisers as their most common type of boat, 54%, with most of the remainder being runabouts/ski boats.

Size and Horsepower of Boats Used:

- Ramp user's boat size and horsepower averaged 16.2 feet and 78.5 horsepower. Most were/are in the 16 to 20 foot size class, with nearly all others less than 16 feet. About 50% were of the 50 hp or less class, with 20% between 51 and 100 hp.
- One-half of dock owner's boats were also in the 16 to 20 foot class, with the remainder approximately equally divided between less than 16 feet and greater than 20 feet. Motor size was similar to ramp users with the exception there were fewer boats between 51 and 150 hp and more boats greater than 150 hp.

- Marina boats were considerably longer on the average right at 27.2 feet, 60% of the boats were longer than 20 feet with 33% between 16 and 20 feet. Horsepower was larger also with an average of 213hp, only 14% reported to have less than 100 hp while 40% had more than 200 hp.
- Lock users averaged boats at 25.4 feet, slightly smaller than marina boats, but were the most powerful boats on the river. Their average horsepower was 320.5, nearly all had at least 100 hp with 67% having greater than 200 hp.

Activities Participated in While Boating:

- Fishing is the most popular activity with ramp users with 56 percent participating. About one-half spent time cruising, another one-third said they used beaches, and only 12% water-skied.
- Private dock boaters participated in fishing at a rate of 49%. Cruising was their most popular activity with 62% participating. About 21% spent time on beaches, and 13% water-skied.
- Marina boaters reported cruising as their most popular activity at nearly 87% participation. Nineteen percent spent time fishing, greater than 50% reported use of the beach, and 17% reported water skiing.
- Lock users reported river activities similar to marina boaters with a higher cruising participation of 96%. Fishing and water-skiing were minor activities with 15% and 16% respectively, but they also reported a very heavy utilization of the beaches at 76%.
- Between 5% and 12% of all boaters mentioned spending time on other activities such as clamming, commercial fishing, sunning in and swimming from the boat, and visiting marina facilities and restaurants.

Percentage of Time Spent on Activities:

- Over 80% of all boaters indicated they used the beach to relax and sun. From 50% to 80% swam from beaches, around 40% to 60% picnicked.
- About 25% to 33% of ramp users stated they had a group outing or party on a beach while less than 20% camped on a beach.
- Dock owners showed similar trends to ramp users when it came to group outings, partying, and camping on a beach. Twenty percent participated in swimming and 30% in relaxing/sunning.
- Because of the time of the year the study was conducted, hunting and trapping were not uses which boaters were engaged.
- More than 40% of lock users camped and about 50% partied, or participated in a group outing. Nearly 75% of lock users reported relaxing/sunning from the boat. Approximately 33% swam.
- Marina boaters in general partied or took part in group outings and 33% camped. Marina boaters swam 20% of their time on the beach while more than 50% said they relaxed/sunned on/from the boat.

Use of Main Channel, Backwaters and Black River:

- Sixty-four percent of ramp users spent time on the main channel, while 77% of dock owners, 88% of marina boaters, and 100% of lock users spend time on the main channel.

- The portion of time spent on the main channel reflected the following trend. Ramp users spent 33%, dock owners 41%, marina boaters 68%, and lock users 90% of their time on the main channel.
- Black River usage showed dock owners at 42%, marina boaters at 47%, and lock users at 34% utilization of the Black River. The dock owners and marina boaters averaged less than 20% of their time there. Lock users spent about 7% of their time on the Black River.
- Backwater usage showed dock owners at 70%, marina boaters at 38%, and lock users right at 25%. Dock owners spend 40% of their time in the backwaters, with marina boaters and lock users at 19% and 3% respectively.

Boaters Favorite Locations on Pool 7 and 8

Pool 7 - Main Channel
Lake Onalaska
Trempealeau Lake

Pool 8 - Main Channel
Backwaters; west French Island
Black River
Backwaters; east of main channel

Attributes of Those Locations: Good fishing, solitude, quiet, fewer boats, good beaches, close to home, convenient, scenery, wildlife, other natural features, calm/shallow water, less wakes/current, facilities/services, see friends/family, social reasons, deeper water, less obstructions.

Locations avoided by boaters on Pool 7 and 8:

Pool 7 - (*various locations*)

Pool 8 - *Main Channel (all or part), Black River backwaters (east of main channel)*

Non-specific or large areas - (*La Crosse area, wing dams, shallows, etc.*)

Attributes of Avoided Locations: Too many boats/wakes, undesirable water conditions, undesirable behavior, unsafe boating, poor fishing, beaches not as desirable, sheriff patrol/law enforcement.

Features Boaters Like Best About Pools 7 and 8: Scenery, wildlife, other natural features, close, convenient, familiar, good fishing, good beaches, quiet, relaxing, peaceful, low-density recreation opportunities, facilities/services, water quality, calm water, other features, general enjoyment, good for chosen activities, family and friends, social opportunities.

Other Pools, Rivers, and Lakes Used:

Other Mississippi River pools (*pools 3 through 10*)

Adjacent pools (*Pool 6 and 9*)

Thirty percent of lock users mentioned Pool 7 and/or 8 as one they use the most frequently. Pools 3-10 were mentioned 18% to 27% of the time by respondents.

Ramp Users Reasons for Choosing to Come to Pools 7 or 8:

Close, convenient, familiar, good fishing, new, change of pace, friends, family, water qualities, natural resource features, commercial harvest, public facilities.

Changes Boaters Have Noticed on Pools 7 and 8

- Positive Changes:
Water quality improved, beaches/shoreline improved, more beaches, fishing improved, facilities/services improved.

- Negative Changes:
Fishing worse, beaches/shoreline dirty/eroding, siltation/filling in of backwaters, water quality worse, more boat traffic, large boats/crowding/conflicts with other boaters.
- Neutral/Mixed Changes:
Changes in aquatic vegetation, dredging of Lake Onalaska/main channel, changes in wildlife populations, changes in channel obstructions due to high water, more/new regulations, changes in patrol.

Effects of Changes Noticed on Boaters Enjoyment:

- Positive Effects
Boating more enjoyable, fishing improved.
- Negative Effects
Fishing worse/less enjoyable, fish less, boating less enjoyable.
- Neutral or Mixed Effects
Changes in activities, use river less, avoid busy days/times/areas, affects on hunting/other wildlife related activities.
- Changes Boaters Would Like to See on Pools 7 and 8:
More dredging in backwaters, control of siltation and erosion, improved/more sandbars and beaches, improvements/additions to shoreline facilities/services, changes to fishery management/fishing regulations, improve water quality/pollution control, control weeds/improve navigation in backwaters, changes in patrol/enforcement of boating regulations and etiquette, limit/zone/disperse/restrict use changes in no-wake zones/speed limits, more boater training/education, better behavior, restrict boat size/horsepower, changes in commercial traffic/lockage policies, misc. changes to management policies/regulations, fix/build wing dams.

Problems and Conflicts With Other Boaters:

- Unsafe boating/ignoring rules, discourteous behavior, personal watercraft problems.
- Problems with Tows:
Lock usage/conflict (*waiting too long to lock*), large wakes, shoreline erosion, disrupt river bottom (*Few boaters in any one category reported problems with tows and even fewer reported navigation or safety-related conflicts*).
- Accidents and Safety Hazards Seen or Experienced:
Unsafe boating, accidents/near accidents, unsafe behavior by non-boaters, physical hazards.

Expectations for Number of Boats on Pools 7 and 8:

- About 50 to 60% of each boater groups said they saw "about as many" boats as they expected to see on their last visit to Pools 7 and 8. Approximately 40% of the ramp users, 30% of the dock owners and marina boaters and 25% of the lock users said they saw "fewer" boats than they expected. Only 14% of ramp users and 8% or less of the other boater groups said they saw "more" boats than expected.

Preferences for Number of Boats on Pools 7 and 8:

- From 25% to nearly 50% of each boater group would like to have seen still fewer boats.
- Dock owners and marina boaters appear to be particularly sensitive to higher use levels.

1997 RECREATIONAL BOATING STUDY OF THE LOWER ST. CROIX SCENIC RIVERWAY AND THE MISSISSIPPI RIVER FROM THE TWIN CITIES TO LOCK AND DAM 10 prepared by the Minnesota-Wisconsin Boundary Area Commission for the U.S. Corps of Engineers and the Minnesota and Wisconsin Departments of Natural Resources.

General Summary and History

For 15 times on the St. Croix River, and 5 times on the Upper Mississippi River (*south to Lock & Dam 10*), the Minnesota-Wisconsin Boundary Area Commission, in cooperation with the Army Corps of Engineers and the Minnesota and Wisconsin DNRs, has conducted a biennial aerial survey of recreational boat usage on the St. Croix National Scenic Waterway and the Upper Mississippi River to Lock and Dam 10. The studies are conducted with an emphasis on determining boating activity during weekends and holidays, the busiest periods for recreation on the two rivers.

Between 1989 and 1997, conducting the survey every other boating season, it has been determined about 803,000 people in 335,000 watercraft recreated on the St. Croix and Mississippi Rivers, excluding Lake Pepin, bordering the states of Minnesota and Wisconsin. About one third of the activity occurred on the Lower St. Croix River National Scenic Riverway, making it the busiest river segment, of those studied, per mile. About half of the total boating activity was on the Mississippi River between Lake Pepin and Lock and Dam 10. This includes Pools 7 and 8 in the Port of La Crosse area. The remainder of the boating activity occurred between Dayton, Minnesota in Pool 2, and the head of Lake Pepin in Pool 4. On the “lower segment” of the study area, from the mouth of the Chippewa River to Lock and Dam 10, it has been observed since 1989 that the number of fishing boats seen has declined, while the proportion of cruisers has increased over two-fold. This is the same observation made on the “upper segment” of the Mississippi, and on all three segments the type of vessel known as a “personal watercraft” has increased as a proportion of use far more than any other type of craft. On the lower segment the trend can be summarized as smaller and slower replaced by bigger and faster.

Study Methodology

The study is conducted by aircraft taking photographs of the main channel. For various technical reasons only the main channel of the Mississippi River, and the Black River from the mouth to the end of commercial navigation, were photographed. The boating activity occurring off the main channel is not recorded, nor tallied in the statistical data reported in the study. Pool 7, reaching from the tailwaters of Dam 6 at Trempealeau to the Head of Dam 7 at Dresbach is divided into three zones, with zone 7-3 being the area with the most interest to the La Crosse Harbor Commissions, as this is the area within La Crosse County, and includes Lake Onalaska. Pool 8 is divided into six segments, with one 8-3, being the Black River. The upper part of Pool 8 from Lock and Dam 7 to the mouth of the Root River is the segment of most interest to the La Crosse Harbor Commissions. From the foot of Lake Pepin to Lock and Dam 10 there are 30 segments.

Summary of the Survey Specific to La Crosse Area

Number and Distribution of Boats

There are four segments that have, over the five biennial surveys, stood out as being the most active by tallying more than 5 percent of the total number of watercraft in the 30 segment study area. One of these four most active segments is 8-5, in Pool 8 from the mouth of the Root River to the Deadman Slough Day Mark, opposite Stoddard. This segment begins in La Crosse County, above the lower end of Goose Island, and extends into Vernon County. This segment also was one of the five segments that consistently has a greater percentage of beached to active boats. Pool 8 in total has approximately 22 percent of all the watercraft tallied from the foot of Lake Pepin to Lock and Dam 10. Since La Crosse is the largest urban area in this stretch of River that is perhaps not surprising. Pool 10, reaching upriver from Guttenberg, Iowa to just below Lynxville, Wisconsin, records an essentially equal percentage of the total boating volume as does Pool 8. The largest urban area influencing this pool is Prairie du Chien, Wisconsin. The

most active segment in this pool, and the most active of any individual segment in the study area is 10-4, between the Wisconsin River and Lock and Dam 10, below Prairie du Chien. The segment between Gordon's Bay and the USH 18 highway bridge is the second most active segment, and also one of the four segments discussed previously that has consistently been observed to contain more than 5 percent of the total watercraft.

The significance of these findings and their relevancy to future planning in the Port of La Crosse area is the recreational boating facilities inventory shows most marinas, private docks, and access ramps are in segments 8-2, 8-3, and 8-4, while the most active segment in Pool 8, and one of the four most active individual segments in the study area, is below La Crosse toward the Stoddard area. This would indicate a lot of transient recreational boating traffic would be passing by the La Crosse city front and the Isle La Plume fleeting areas.

Types of Watercraft and Status of Watercraft

Although the overall distribution of watercraft among the pools, or even among segments within the pools has not changed significantly or consistently between 1989 and 1997, the type of watercraft is showing a definite trend. The trend at the macro-level of Pools 4-10 has already been mentioned; and a very definite decline in what are called "fishing boats", defined as outboard powered open small craft, has been observed, and the rapid rise of personal watercraft and a less dramatic, but steady rise in cruiser type craft, with hard tops and multiple decks, has been noted. Since the study methodology only examines the main channel, it is possible that the smaller fishing type craft have been "driven off" the main channel and may be found in greater numbers in the back waters and sloughs, but the study does not directly address that issue so that possibility is only speculation.

The study does not directly examine each pool or pool segment as to type of watercraft found within it, but certain types of craft are more likely to be "beached", with its operator and passengers using a sand bar or beach, while other type of craft are more apt to be found "active", meaning the craft is occupied and on the water. The small fishing craft, by the very nature of its use, is more apt to be "active" or appear to be, as interpreted from the aerial photos, as compared to houseboats and pontoon boats, which are more likely, as viewed in the random aerial snapshots, to have a greater percentage of their numbers beached. As the numbers of personal watercraft have increased it has been observed this type of craft is also more likely to be beached on a sandbar or island. Since the lower part of Pool 8, below La Crosse has been one of the more popular beaching areas, it follows that houseboats, cruisers, and personal watercraft are likely to congregate in that area.

The relevancy of this information to planning in the La Crosse Harbor Commission area suggests that the size and speed capability of pleasure craft is increasing, and can present a greater danger to each other, as well as to commercial traffic. Personal watercraft have received much criticism since they became popular several years ago, primarily because of their speed and noise, and seeming disregard of Rules Of The Road and common courtesy. This study suggests personal watercraft use may just as likely be a means to travel to a beach or sandbar as a means of pleasure in itself.

Watercraft Density per Acre of Surface Water

In addition to distribution of craft by pool segment, type of craft, and status (*active vs. beached*), the numbers of craft per water surface acre were observed. Various studies from different parts of the country suggest that a density of craft that allows 10 to 15 acres per active watercraft is the point at which special studies should be initiated, and when the acres available per active craft become less than 10, special management measures should be implemented to manage the water surface. Such measures are in place on the Lower St. Croix River. In the La Crosse area, only segment 8-3, the Black River, has a peak-use boating density of less than 10 acres per active boat, with the 1997 survey estimating 9.5 acres. The "No-Wake Zones" already in effect on portions of the Black River are examples of water surface regulations that can be implemented at this level of congestion. Pool segment 8-1, from the Lock and Dam 7 tailwater to the I 90 highway bridge was estimated to have a density of 11.4 acres per active boat during peak use periods. This segment is only 0.7 miles in length and there are launch sites at the

Minnesota Visitor Center and also just below the I 90 bridge. A high density could be recorded by aerial photography as these craft were dispersing to other parts of the pool. In other areas of Pool 8, the density ranged from 20 acres per active watercraft to 286 acres. The upper reaches of Pool 7, near Trempealeau experienced some peak use density concerns with the 1997 survey suggesting each active craft had about 19 acres of surface water.

SUMMARY OF MARINA USAGE ASSESSMENT FOR THE GREATER LA CROSSE AREA - dated August 15, 1992, developed by Stephen C. Brokaw, Ph.D. & James E. Finch, Ph.D., both with the Department of Marketing in the College of Business Administration at the University of Wisconsin-La Crosse.

Information contained in this assessment was gathered from a variety of sources, e.g. several publications were utilized from federal, state, and commercial reports. On-site visits were conducted at area marinas and interviews were conducted with marina operators And Harbor Masters in the area.

Reason For Report

This report was generated in response to the city's (*La Crosse*), concern over the present facilities being inadequate. These views were shared by a representative of the Mayor's office and the Director of Parks and Recreation.

The section of the river that was specifically investigated runs approximately from Lock and Dam No. 6 (*Trempealeau*), to Lock and Dam No. 8 (*Genoa*). The Black River intersection with the Mississippi was also investigated.

Boating Trends In Wisconsin

Boater registration was tracked for a seven year period from 1985 to 1991 through Department of Natural Resources (DNR) records. Boat registration had gone up every year except for 1991. Overall, statewide boat registration was up 13.6%, which breaks down to just under 2% annually.

County Level Trends 1985-1991

Data from the DNR reflects trends for the eight counties in Wisconsin that border the Mississippi. All counties showed increases; La Crosse County reflected a 10% increase during this time frame. Year to year trends show a different view - from 1990 to 1992, five of the eight counties showed decreases - La Crosse included, from a high of 1.3% in Trempealeau County to a low of four tenths of 1% for Buffalo County.

Boating along the Mississippi showed a steady growth from 1985 to 1990. Recent numbers (1991) show a plateau may have been reached and even a decline in numbers has been noticed.

Information provided by the U.S. Army Corps of Engineers showed a downturn in the use of Lock and Dam Numbers 7 and 8. Their statistics show that there may be a decrease in distances that boaters are traveling.

Recreational River Usage

Information on this area of use was gathered from State DNR and Army Corps of Engineers. "The La Crosse and Black River areas receive special mention in the report as being areas of future concern. This concern is based on estimates of boating density along stretches of the river. The area around La Crosse is shown to be among the most heavily traveled on the Upper-Mississippi."

In 1989 approximately 19% of all boats on the river were identified as cruiser or houseboat type. DNR figures for 1989 to 1990 season, acquired through survey, estimate boaters spend about \$6,720,000. Only \$130,000 of this total was for dock, marina slips, and moorings - over \$3,000,000 was spent on food.

Fishing was the major activity of boaters with a 71% participation level. Pleasure cruising was listed at 43%. These figures show that although the La Crosse area is one of the most popular on the river it is for reasons other than visiting the city, thus using little of the city's available mooring facilities, temporarily or otherwise.

Availability of Marina Space in the La Crosse Area

In the area that was studied, resources e.g. *Quimby's Guide*, yellow pages, and other publications, show there are 13 marinas. These range from River Mile 714 (*Trempealeau Marina*) to River Mile 697 (*Genoa Harbor*). The five largest facilities: Trempealeau Marina, Beacon Bay (*now called North Bay in 1999*), La Crosse Pettibone Boat Club, Bikini Yacht Club, and the La Crosse Municipal Harbor provide 872 slips. The other eight provide 88 slips for a total of 960 slips available. At first glance there appears, in conjunction with the above density trends, to be a shortage of mooring space in the area.

Harbor Masters' Assessments of Marina Demand and Downturn

All five Harbor Masters' interviewed agree that river traffic was down. Of the largest, only Pettibone Boat Club was (*as of 08/01/92*) operating at full capacity and also had a waiting list. Of the remaining four, occupancy levels varied from a low of 45% to just over 90%. (*"Note: these figures are for all forms of storage space, including dry stack facilities".*)

The Harbor Masters' voiced concerns that some of the marinas might not be able to remain in business over the next couple of years. They also stated location as to reasons why one marina would be full and the other not. Obviously being on the Main Channel as opposed to the West Channel or on the backwaters appears to have its advantages.

All Harbor Masters' agreed on the following three reasons for the downturn. The economy, the apparent health of the economy, and boating popularity appears to rise and fall together. The second reason given was time, "People that are concerned about jobs and homes do not take off the large blocks of time associated with recreation such as boating". The third reason is the weather. It had been a cool and overcast summer up to that point. The cause of the weather trend was attributed to the eruption of Mount Pinatubo. It was also estimated that the weather trend would continue for the next five years. These three reasons explained why so many boat slips were available in the La Crosse area.

"A final question that was asked of the Harbor Masters' concerned their opinions with regard to the expansion of marina slip space. As a group they consistently stated that it would not be a good time to do this."

Doctors' Brokaw and Finch concluded their report with a summary of the above mentioned data/facts/information. Their evaluation of the situation based on the above assessment summary, "There is no compelling evidence to support the expansion of existing municipal marina facilities."

RECREATIONAL BOATING IMPACT INVESTIGATIONS-UPPER MISSISSIPPI RIVER SYSTEM, February 1994, Pool 4, Red Wing, Minnesota.

The study objective is part of the Long Term Resource Monitoring Program's 1992 operating plan strategy - "Determine effects of navigation on selected components and processes of the Upper Mississippi River System Ecosystem". All investigations for this particular study were conducted in Upper Pool 4 of the Upper Mississippi River system near Red Wing, Minnesota. This study area was selected because of the high level of recreational boating activity due to the relative proximity of the Twin Cities metropolitan area, the St. Croix River National Scenic Waterway, and Lake Pepin. The findings can be transferable to similar high recreation use pools, and certainly have some applicability in the La Crosse area. The primary recreational boating impacts that were investigated were the physical and water quality impacts. Extracted portions of the report's "abstract" are summarized in the following paragraph.

The study documented high erosion rates irrespective of the shoreline position in the Main Channel and the development of a daily turbidity plume near the shoreline. A comparison of wind, and the wave characteristics of commercial tows, and recreational watercraft, along with other observations and a "control" channel, provided the perspective necessary to determine the relative responsibility for the observed impacts. Recreational boating was found to be the contributing influence most responsible for the high shoreline erosion rates documented along the Main Channel, and was found to be directly

responsible for the daily turbidity plume in the Main Channel's shoreline area on weekends and holidays. Federal, state and local agencies responsible for managing the Upper Mississippi River system should respond to the findings of this report by implementing programs to protect the river from recreational boating impacts.

FEASIBILITY STUDY FOR THE TRANSIENT BOAT DOCKING FACILITY, LA CROSSE, WISCONSIN - PHASE ONE - FINDINGS AND CONCLUSIONS EVALUATING NEEDS AND DEMAND, January 12, 1998. Prepared by Johnson and Johnson & Roy/Inc. - Premise Associates for the La Crosse (City) Board of Harbor Commissioners.

Boating Activity Trends Were Evaluated in Three Ways:

- Registration patterns and boat sizes
- Lock and dam activity
- Overnight boat travel

Major concentrations of "amenity" land uses such as convenience shopping and laundromats, and festivals and events such as Riverfest, museums, restaurants, were also inventoried.

The study researched boat registration data in the eight Wisconsin, and five Minnesota counties along the Mississippi River between the St. Croix River confluence and the Wisconsin southern state line. Dakota County, Minnesota, at the St. Croix-Mississippi confluence, and within the Twin Cities metro area, had the largest number of boat registrations, account for 45 percent of all the boats registered in the thirteen river counties in 1993. The five Minnesota counties recorded the largest increase in registrations in the late 1980s. In the early '90's economic recession the Minnesota counties remained relatively stable, while declines in boat registrations were recorded in most of the Wisconsin counties. The unique flooding in 1993 tended to distort boat registration trends as apparently some boat owners in both states did not register their crafts during that year, and the demand for both seasonal and transient slip space was noticeably reduced.

Lock and dam usage by recreational boats increased from 1988 to 1989, but the 1989 and 1990 seasons saw a drop in activity, which was attributed to the general economic slow-down of this period. By 1992 the L&D transits were back to a level equal or slightly exceeding 1989, but the floods of 1993 reduced use to less than 50% of 1992. Partial data from the 1994 season recorded usage increases equivalent to 1989. The study did not report data more recent than August 1994.

Inter-Pool Movement and Overnight Travel appears to be limited in the La Crosse area in Pools 7 and 8. Corps of Engineers studies indicated that inter-lock travel by boaters from the marina rich Lake Pepin area in Pool 4 does not typically reach as far south as La Crosse, and therefore most recreational boating traffic in Pools 7 and 8 consists of boats that are either kept in slip or piers in those pools or are launched from ramps into either pool. A Corps of Engineers study cited in this report estimated the average number of nights a boating party stayed in Pools 7 and 8 was three. The consultants who prepared the study being summarized hypothesized most of these overnight on-boat stays were either while the boats were moored in owned or leased slips or while beached or moored at developed recreational areas.

Conclusions On Boating Activity Trends

The consultant study concluded there is a positive potential for increased overnight and short term day time transient boating facility demand, but this potential, particularly for overnight visits, is constrained by the time required to travel to La Crosse from the large concentration of marinas on Lake Pepin or further up river in the Twin Cities area. There are at least five locks between Lake Pepin and the main La Crosse City front of upper Pool 8. A locking event can be done in as little as 20 minutes but could take two hours or more depending upon the waiting time for commercial tows or other pleasure craft.

The study continued by using other inventories and reports from the Minnesota Department of Natural Resources and determined there were 995 marina-based boat slips in Pool 8 and approximately 885 were located in the immediate La Crosse area. The consultants determined the five La Crosse area marinas had a total of 775 slips. These "big five" are Pettibone Yacht Club, La Crosse Municipal Harbor, Bikini Yacht Club, Skipper Bud's Beacon Bay (*now called North Bay*), and Midway Lodge/Moxies (*now called Midway Hotel Resort and Convention Center*). At most marinas transient overnight docking is generally at excess seasonal capacity or temporarily vacant leased slips. Some marinas also accommodate short-stay boaters at the gas or pump-out docks or other more make-shift accommodations. The Midway facilities were unique in that they are totally for transients, but only for those using the motel rooms or restaurant; not general transients.

Location of Amenities

Although none of these five marinas are within easy walking distance of downtown La Crosse all except the La Crosse Municipal Marina are located within walking distance of some varied amenities, such as fast food or sit-down restaurants, retail stores, parks, or lodging facilities. The location of the municipal harbor near the city sanitary sewer plant and brewery does nothing to enhance its aesthetic value.

Overnight Transient Utilization (Demand)

The boating season was assumed to be 167 nights. Facility occupancy by overnight transient boaters is estimated to average 19 percent at the five studied marinas. A derived figure of 3.8 persons per boating party for boats using marina slips, and the 19 percent utilization rate, produces over 15,400 persons overnight into the La Crosse area during the boating season. The peak boating season in the La Crosse area essentially begins with Riverfest in early July and continues through the middle of August; approximately 6 weeks which produce about 85 percent of all the visitors staying in this area's transient boating facilities for the entire boating season. During this period some marinas may turn away transients while on the same night other marinas with less desirable amenities may have vacancies.

Slip Size Trends

Larger boats are more apt to be overnight travelers than smaller boats, while at the same time transient slips for larger boats tend to be most scarce and result in the most turn aways. This is partly because even though large boats are more apt to travel on overnight trips, most large boats are less apt to be taken out from their slips. Small boat owners when they use their boats are likely to take them overnight to sandbars or other amenities, whereas large cruiser or houseboat owners "use" their boats simply by being on them tied up in their home slip. This of course makes their slip less available to transient large boats.

Short-term (day use) Patterns

While overnight transient use is most concentrated on week-ends and holidays, day-use transiency is more evenly spread-out, including even earlier and later than the peak boating seasons. The main day users are small trailered or home-docked boats beginning their trip within an hour of the transient facility. Typically these users do not expect to pay a fee to dock their boat for a few hours during the day. Marinas are careful not to allow these "free" customers to take spaces that might be wanted by paying overnight transients.

Most marinas up and down the Upper Mississippi River agree that day use transiency is very closely tied to the availability of on-site or nearby (*fifteen minute walk*) amenities such as dining, shopping, and entertainment opportunity. Without these nearby amenities a facility for day use transient boats is likely to see little use even during peak times.

Conclusions On Transient Facility Utilization

- There is a demand for additional transient facilities in the La Crosse area, but it is limited to the 34 days of the prime/peak season during this time between 50-100 boats may be unable to find overnight transient berths.

- Demand for transient boating facilities is likely to increase. As the average size of boats on the river increases, the practical feasibility for longer trips occurs. As the transient berthing shortage continues some boaters with time flexibility will schedule longer trips during the week, or earlier or later in the boating season. The entry of "Baby Boomers" into retirement make this more flexible scheduling.
- Facility location is a major factor contributing to transient demand.
- On-site or adjacent amenities are important contributors to demand.
- Overnight transient demand is greatest for slips able to accommodate boats 30-40 feet long. Lack of transient space for boats this size may be a self-fulfilling prophecy causing these boats to leave their long trip use.
- Short-term day use is from a greater variety of boat sizes than overnight demand. A transient boat docking facility for both short-term and overnight stays will achieve greatest flexibility.
- The attractiveness of the general site area will affect facility utilization.

Demand Generators - General Site Considerations

Barron Island - North Rose Street - Downtown La Crosse

Recommended Facility Configuration

Facility Size

Provide 40 - 50 slips

Slip Mix

- 25% for boats 24-29 feet
- 60% for boats 30-40 feet
- 15% for boats 40-55 feet

Locational Requirements

Have on-site, adjacent, or within 10 minute walk

Full service restaurant and tavern

Overnight lodging

Convenience and comparison shopping

Other tourist demand generators (*cultural & natural attractions*)

Ready access to main channel of Mississippi River

Attractive environment around the marina

Have on-site or adjacent playground and picnic area and open space play area

Facility Amenities

- All slips should have water and electrical service
- Provide flush toilets, coin laundry, pump-out facility
- Public telephone
- Gas dock is not necessary
- Harbor Master office with snack and convenience items
- Information about repair services, boating supplies, vicinity map, etc.
- Security for moored boats and contents
- Well maintained

Sites designed specifically for short-term day use need not provide electricity and water to each slip, or showers, or laundromat, nor on-site play area.

TABLE 4.2
BARGE BORNE COMMODITIES ON THE UPPER MISSISSIPPI

BARGE BORNE COMMODITIES PASSING DOWN RIVER THROUGH LOCKS AND DAM 7 & 8

Year	Lock	# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		TOTAL	TOTAL
		EMPTY	COAL	COAL	PETROLEUM	CHEMICAL	CRUDE MAT.	PROCD MAT	FARM PROD	MFRD EQUIP	UNKNOWN	WASTE MATERIAL							
1989	7dwn	283	0	444	638,400	374	867,300	168	256,360	64	92,400	2	3,000	6,216	8,944,300	2	3,000	7,553	10,804,760
1989	8dwn	344	0	438	630,900	378	862,156	162	242,899	63	91,200	2	2,900	6,315	9,102,600	0	0	7,702	10,932,655
1990	7dwn	268	0	554	831,000	583	1,215,997	141	210,600	107	160,200	1	1,500	7,523	11,283,611	0	21	9,198	13,734,408
1990	8dwn	346	0	518	777,000	583	1,183,964	151	226,500	107	160,500	9	13,500	7,621	11,417,700	4	1,500	9,342	13,785,164
1991	7 dwn	295	0	361	541,500	183	614,736	161	241,500	79	118,500	16	24,000	6,731	10,096,500	1	1,000	7,828	11,639,236
1991	8dwn	442	0	361	541,500	151	383,475	129	197,400	67	99,002	25	64,500	6,790	10,157,709	0	21	7,986	11,475,086
1992	7dwn	335	0	230	351,000	83	246,700	135	208,500	93	141,000	5	7,500	6,842	10,240,100	12	14,000	7,742	11,218,800
1992	8dwn	516	0	258	403,500	72	214,900	171	265,400	234	201,400	34	51,000	7,494	11,227,630	11	12,500	8,801	12,391,630
1993	7dwn	451	0	179	268,440	53	124,100	155	227,185	57	81,859	7	9,300	3,380	5,038,497	11	9,200	4,297	5,763,181
1993	8dwn	468	0	193	287,940	45	101,800	155	231,435	60	89,359	5	6,300	3,594	5,347,572	7	7,100	4,536	6,082,806
1994	7dwn	689	0	244	366,200	86	241,365	269	402,459	94	139,600	7	10,500	4,495	6,672,267	16	2,450	5,911	7,841,641
1994	8dwn	615	0	243	364,800	66	170,215	275	411,859	102	151,200	11	16,500	4,565	6,803,567	5	775	5,896	7,928,316
1995	7dwn	452	0	103	154,570	172	475,110	235	352,900	93	141,000	44	66,385	5,555	8,294,055	19	19,325	6,713	9,553,914
1995	8dwn	413	0	106	159,070	160	441,410	238	357,400	119	179,400	33	49,400	5,762	8,589,262	18	9,700	6,885	9,836,511
1996	7dwn	486	0	174	260,686	146	429,174	163	247,583	96	143,800	27	40,500	6,414	9,597,574	13	7,900	7,537	10,748,583
1996	8dwn	409	0	175	262,286	126	364,681	160	243,083	91	136,300	34	51,000	6,641	9,938,257	7	8,100	7,674	11,041,618
1997	7dwn	633	0	93	139,400	175	501,219	164	263,350	101	142,413	9	13,500	5,647	8,445,955	16	17,627	6,863	9,557,879
1997	8dwn	528	0	89	133,400	150	427,861	169	261,774	100	141,063	11	16,435	5,825	8,701,620	11	11,600	6,907	9,728,568
1998	7dwn	443	0	177	265,800	327	877,810	151	228,489	90	136,215	47	69,265	5,934	8,903,535	31	3,750	7,259	10,518,514
1998	8dwn	511	0	175	262,800	289	777,616	147	225,049	111	158,955	32	47,752	6,104	9,147,577	19	19,650	7,442	10,670,049

BARGE BORNE COMMODITIES PASSING UP RIVER THROUGH LOCKS AND DAM 7 & 8

Year	Lock	# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		# Barges Tons		TOTAL	TOTAL
		EMPTY	COAL	COAL	PETROLEUM	CHEMICAL	CRUDE MAT.	PROCD MAT	FARM PROD	MFRD EQUIP	UNKNOWN	WASTE MATERIAL							
1989	8up	5252	0	444	646,000	109	285,007	810	1,177,600	591	856,500	376	544,500	129	183,800	5	7,500	7,725	3,711,507
1989	7up	5316	0	432	627,700	52	123,477	761	1,135,400	550	791,600	308	442,800	95	137,400	0	0	7,529	3,279,377
1990	8up	6835	0	430	645,000	107	271,300	749	1,156,100	593	887,000	401	601,500	81	121,500	7	9,800	9,232	3,735,700
1990	7up	7031	0	408	612,000	45	116,160	743	1,144,100	516	773,900	337	505,300	44	66,000	2	3,000	9,146	3,250,460
1991	8up	5549	0	418	641,900	87	237,210	784	1,208,700	461	691,000	381	565,110	201	298,500	5	7,000	7,928	3,710,920
1991	7up	5647	0	401	601,500	42	104,510	777	1,205,000	441	664,000	305	453,000	146	219,000	1	2,000	7,774	3,268,910
1992	8up	5908	0	453	698,900	90	233,081	1032	1,710,500	583	869,831	429	638,150	138	207,300	9	20,000	8,656	4,398,762
1992	7up	5760	0	358	553,700	15	36,400	974	1,528,400	478	722,500	308	466,100	121	184,600	4	5,500	8,027	3,510,100
1993	8up	2183	0	531	832,500	38	83,266	1026	1,609,249	525	790,372	290	427,100	157	159,000	10	6,400	4,812	3,920,387
1993	7up	2040	0	471	718,500	24	46,900	980	1,422,849	449	693,272	214	321,400	94	138,800	9	6,000	4,353	3,378,021
1994	8up	2,998	0	589	924,484	25	60,800	1186	1,860,804	573	851,369	417	620,133	124	177,454	4	1,950	5,954	4,535,730
1994	7up	3,099	0	582	916,209	11	210,000	1138	1,799,434	517	771,969	335	512,384	69	232,919	2	450	5,795	4,498,301
1995	8up	4,477	0	391	635,601	42	105,556	921	1,465,621	619	929,176	397	591,073	75	112,592	11	7,550	7,005	3,950,580
1995	7up	4,450	0	370	604,580	32	75,261	915	1,462,113	571	867,744	277	435,634	45	67,529	10	6,275	6,739	3,610,568
1996	8up	4,928	0	497	777,078	21	49,218	1035	1,607,086	662	995,271	302	451,524	126	188,905	7	7,800	7,630	4,151,487
1996	7up	5,181	0	419	658,231	13	29,000	1004	1,565,862	610	943,942	168	251,109	64	96,514	3	1,800	7,510	3,607,125
1997	8up	4,147	0	535	831,711	30	88,714	900	1,414,092	665	1,306,936	395	597,146	129	193,186	4	6,124	7,087	4,558,462
1997	7up	4,377	0	502	779,396	24	69,070	869	1,365,916	769	1,175,584	231	349,725	52	76,818	13	18,151	6,908	3,941,219
1998	8up	4,502	0	579	882,548	23	58,442	1054	1,681,871	725	1,124,093	522	796,170	109	156,203	17	10,400	7,550	4,738,301
1998	7up	4,714	0	515	781,882	7	18,437	1024	1,517,028	686	1,012,264	337	519,626	49	74,599	3	4,500	7,371	3,970,910

5. SIGNIFICANT ISSUES IMPACTING PORT OPERATIONS

The previous four chapters of this Plan have included a history and inventories of existing conditions and facilities. This process involves subjective evaluation of the relative importance of the various events and facilities and their relationship to each other. The larger picture, that is the analysis found in Chapter 5, identifies eight significant issues that have either come in to prominence since the 1988 Plan was completed or have had a change in status or condition since the 1988 Plan, or have persisted since that Plan, so as to have a significant impact on the continued development on the Port of La Crosse.

These eight significant issues that need to be considered in planning are not listed in order of importance, and a list of “eight” is not intended to preclude other issues that may arise or be identified during the planning period. Any plan preparation effort recognizes there needs to be an end point, a snapping of the picture at a moment of time, and a recognition that as life goes on, even newer issues will keep arising and will have to be the subject of some future plan revision.

New Mississippi River Bridge

A new second span carrying USHs 14/61 & STH 16 eastbound parallel to the existing Cass Street Bridge has been designed and land acquisition is scheduled to begin in 2000, with completion of the construction scheduled for 2004. A new span will be built south, or down river, from the existing structure known as the Cass Street Bridge. The east-bound span of the new bridge will pass southeasterly across the northeast corner of the Holnam Cement property. Neither the three existing storage towers, nor the barge transfer towers will be directly impacted by this bridge, however future expansion on the property may be impeded if title to part of the property is transferred to the Department of Transportation or restrictive easements are imposed. Division or King Streets will become the principal accesses to the AGM, Holnam, or Division Street waterfront terminals.

New Hotels and Restaurants

The waterfront within the City of La Crosse has changed considerably since the 1988 Plan was prepared. The railroad tracks which in 1988 provided potential rail freight access have now been reduced in active service to south of Market Street. Although tracks remain embedded in Cross Street north to nearly Cameron, and presently have the potential to serve the La Crosse Plumbing warehouse, and the Division Street Dock property, there is pressure within the City management infrastructure to remove these tracks to permit easier street resurfacing in the future. These tracks hold potential for rail service extension to Holnam Cement and/or the AGM grain elevator. The Harbor Commissions should remain active in decisions regarding the future of these tracks.

This Plan recognizes that land use decisions made by developers and/or government bodies may create irreversible or irrevocable conditions which set up a chain of events which will prevent other choices being made in the future. The Plan does not presume to identify one use as “better” than another use, as in “industrial” versus “retail” or “hotel/restaurant” or “residential”; however, it must be understood that some uses are incompatible directly side by side, even in a “mixed use” district, and a decision to allow construction of a hotel or apartment may preclude a future decision to encourage industrial or transportation use of the site or an adjacent site.

Water frontage is a valuable and limited commodity and, regardless of its use, it must be used wisely. Placement of an upscale hotel or restaurant on the waterfront without orienting it to take advantage of the river view and access is an error of design, but replacement of an active, or potentially usable, river freight terminal or river oriented retail use with a non-river oriented structure is a misuse of a precious natural resource.

The issue of “industrial port” versus “waterfront oriented hotel/entertainment center” must continue to be addressed as planning for the riverfront area, and project development, proceeds.

Mobil Oil Site

This 25 acre site of the former Mobil Oil petroleum storage tanks is the center piece of a larger urban redevelopment project within the river area, and land use decisions made anywhere in this redevelopment area will have an impact on the type of waterfront and harbor development that will be compatible or possible. A reuse plan for the site of the former Mobil terminal and tank area has been prepared by a consultant. This reuse or redevelopment plan includes the area between the Black River on the west, La Crosse River on the south, Copeland Avenue on the east, and Causeway Boulevard on the north. There were seven identifiable site use options, as presented by the consultant early in 1999. Two options specifically noted a site for a boat assembly yard for Skipperliner, a local manufacturer of large pleasure craft and commercial passenger boats to launch boat hulls directly into the Black River. That operation has now settled on a French Island site at the former Beacon Bay marina. A portion of this marina still operates, now known as North Bay. Technically the Mobil site could still be an option for a similar operation by another boat builder, but none has come forward to enter the market place. All the options include provision for a pleasure boat marina, which could be either or both transient and seasonal docking. Some of the options feature a festival ground or public park, and others favor apartments and/or office-commercial buildings. All the options preserve the wetland habitat north of the La Crosse River, and preserve the natural area directly north of the current *La Crosse Queen* dock.

The La Crosse Common Council has approved either options 2 or 6 as described in the reuse plan discussed in the preceding paragraph. Option 6 included the provision for Skipperliner, which is now relocated to French Island; therefore Option 2 becomes the choice. This Option has a provision for a marina, a festival/open-space area that can accommodate formal fairs and includes an amphitheater, picnic pavilion, multi-purpose building, and a smaller outdoor performance stage. The remainder of the proposed development on this site was modified by the Common Council from the consultant’s plan in that the proposed industrial park lots have been changed to office park use. A river front trail traverses the property from south to north. The challenge for all City agencies, including the City Harbor Commission, will be to engage in activities to help implement this plan over time.

Former Mississippi Dock Site

There are two water frontage parcels on either side of the foot of Division Street. Both are currently owned by the Stroh family and will, apparently, be included in the pending sale of the Stroh brewery property to Platinum Holdings, a real estate investment firm. The 2.59 acre parcel on the north side of Division has a 338 foot river front and is leased to La Crosse Plumbing Supply Company, which owns an adjoining 1.32 acre parcel with frontage on Cross Street. Both these parcels are used for storage and handling of La Crosse Plumbing’s stock, including ductile iron pipe the firm receives by barge and distributes by truck to a large market area in the upper Midwest. The site used to be leased and operated by George Jolivette as a general dry cargo terminal under the name Mississippi Docks, and was vacated in order to move his operation to Isle La Plume at about the time the 1988 Harbor Plan was being prepared. The 5.54 acre parcel to the south of Division street has a 550 foot river frontage, but has a relatively narrow river level elevation and is mostly a higher ground area which provides direct access to Front Street. Part of the upland portion was used by the previous owner, Heileman brewery, as a semi-trailer staging and storage area. Most of this activity was moved to Isle La Plume by the Stroh brewery operations, and the remainder of the parcel along the river is in native vegetation and currently “under-utilized”. There is a major sanitary sewer force main under part of the site which would require restrictions on certain types of building development, and the past use of part of the site may require environmental remediation. However, the presence of the Burlington Northern Santa Fe “city line” industrial spur almost to the site suggests this could be developed in conjunction with the former Mississippi Docks site as a rail-river multi-modal terminal, or in conjunction with the former brewery as a transportation transfer point for products manufactured or supplies needed at the site. The presence of

rail, river frontage, and a street system that has already been developed for truck traffic patterns, make this a good prospect for future industrial/transportation use.

French Island Sites

The F. J. Robers Company remains the principal landlord for shipping industries on the Black River, just as in the 1988 Plan; however individual tenants and operations have changed. This site is noted in the “Campbell Town Plan...1995-2020” adopted by the Town in 1998, as having “major areas of vacant land available for development”. The Plan notes that although much of the area is currently occupied with open storage areas for bulk products such as coal and road salt, steel, and liquid tanks, “a major development could be accommodated with rearrangement of the existing facilities”. The Plan continues by noting “the presence of an existing rail and barge served industrial site bodes well for future expansion or location of heavy industrial activity in this part of Campbell”. In another part of this Plan it is pointed out, “Here the unique combination of commercially navigable river access and a mainline railroad access make the area the best in the overall La Crosse urban area for ‘heavy’ industry which requires rail or water transport”. The Plan also notes the transportation weak link in this location is the distance from I 90 which is accessible via Bainbridge Street (CTH B) through a residential neighborhood.

Multimodal Transfer Site

Several years ago, the MRRPC conducted a survey of La Crosse area businesses and determined there was some level of interest in a facility for transferring highway trailers or containers between highway and rail modes. Another study, conducted by the La Crosse Area Development Corporation (LADCO), identified the types of industries, by SIC, that could benefit from a river to land transportation terminal. These two types of intermodal transfer facilities do not have to be located at the same site, but a combined site could be developed to a higher level of efficiency and potential than would be true of two separate sites. In further pursuit of the truck/rail transfer site possibility, LADCO had some informal discussions with the Canadian Pacific Railroad. The rail representative cited the operating congestion on the existing main line route via Tomah, and suggested that a site in the La Crescent area on the IMRL railroad south of “River Junction” might be a better location. As noted earlier, the land-water and highway-rail transfer sites don’t have to be at the same location, although a unified site would be most flexible. The highway-rail operation by itself does not deal directly with water access and, therefore, is secondary to the development of the harbor plan. The broader concept of “Port of La Crosse” would encompass all modes of transportation.

Endangered/Threatened Species, and Exotic Species

The **Higgins’ Eye Pearly Mussel** (*Lampsilis higginsii*) is a fresh water mussel that is on both the federal and state Endangered/Threatened Species list, because its range, or area in which it lives, has been drastically reduced from even a relatively few years ago (pre 1965 to 1981), and also because of the vulnerability to the animal in its present range.

North America is home to most of the species, and total numbers, of fresh water clams in the world, and a large portion of these are centered in the Mississippi River system. Higgins’ Eye Clam was never abundant, even in the pre-European settlement days, but prior to 1965 its range was recorded in the Mississippi River system as far south as St. Louis and north to the Minnesota and St. Croix Rivers. Significant colonies also were found in the lower Wisconsin, Rock, Wapsipinicon, Cedar, Iowa, Sangamon, and Illinois Rivers. Studies in the 1980s showed a drastic reduction in numbers and young at those locations. The 1980 studies indicated there were populations on the St. Croix, the Mississippi in the La Crosse area, and the greatest concentration is in the Prairie du Chien area. There was also an area of lesser concentration on the Mississippi just below the mouth of the Iowa River. More recent studies for the placement of the new second span highway bridge at La Crosse confirmed there were Higgins’ Eye clams present at that location and special measures will need to be taken when the bridge is built. Since the 1980s investigations, and the writing of the 1982 species recovery plan, there is evidence the

population of all fresh water mussels, including the Higgins' Eye, has declined at the Prairie du Chien areas where it had previously been the greatest.

Reasons for this decline have been discussed among biologists and some generally agreed upon conclusions have been reached. Since the species was never abundant, even in its period of fullest range distribution, it is thought the heavy commercial harvest for mussel shells during the 1890-1920 period reduced its numbers below a level necessary for successful population maintenance. The general decline in water quality from agriculture runoff, municipal sewage, and the change from a free flowing to an impounded system are also believed to have contributed to the decline. Channel dredging for navigation maintenance and/or construction projects is also a possible cause of decline, both by direct physical removal of the bottom dwelling species and by subsequent increased turbidity and sedimentation which covers or smothers the beds. Some biologists speculate that additional causes of decline are generally increased turbidity, loss of host fishes which are needed to carry the young clam larvae during a portion of the clams' early life, and diseases to the clams.

In 1994 the U.S. Fish and Wildlife Service reconstituted and reconvened the Higgins' Eye Recovery Team to gather data and reassess the current distribution and status of the species, and to revise the 1982 recovery plan as necessary. The 1998 Revised Recovery Plan established the following Recovery Criteria:

- * *L. higginsi* may be considered for delisting when at least 5 of the essential habitat areas contain reproducing, self-sustaining populations of sufficient security to assure long term viability to the species
- * *L. higginsi* may be considered for reclassification to threatened when at least 5 of the essential habitat areas contain reproducing, self-sustaining populations.

The Recovery Team identified the ten mussel beds it considered to be the essential habitat areas for the survival of the species. These are three locations on the St. Croix River, one on the Wisconsin River, and six locations on the Mississippi River, the closest to La Crosse being in Pool 9 at Whiskey Rock, opposite Ferryville, Wisconsin at River Mile 655.8-658.4. The fact that Pools 7 and 8 in the Port of La Crosse were not designated as essential habitat areas does not remove the Higgins' Eye Clam from any of the provisions of the Endangered Species designation in the La Crosse area.

Zebra Mussel (*Dreissena polymorpha*), a relatively recently introduced (*discovered in the Upper Mississippi River in 1991*) non-native, or exotic, species of clam, is contributing to the decline of all native mussel species, including the Higgins' Eye. It is generally believed the Zebra Mussel entered North America in ballast water from deep sea ships coming out of the riverine estuaries of the Black Sea. From the original entry into the Great Lakes, the critters entered into the Illinois Waterway and have worked their way into the Mississippi River. This mussel is very aggressive in its reproductive and growth rate. It feeds in the same manner as native mussels, by siphoning microscopic organic matter from the river water, but at such a great rate and with the sheer number of animals, they actually cleanse the water of potential food to a point that, in some instances, the native species can not get enough food. This same aggressive siphoning power actually removes the free floating native mussel sperm from the water thereby reducing the chance of native species reproduction. In addition, the Zebra Mussel physically attaches to the native clam shells and can either prevent the native clam from properly opening its shell, or can invade the shell and prevent proper closure.

The Zebra Mussel, in addition to its detrimental role in the life cycle of native clam species, is also a problem for the human infrastructure. The aggressive reproduction and growth of the mussel cause it to cluster around water intake or discharge pipes, such as at power plants, sewer plants, or on boat hulls and piling. Excessive numbers require costly removal from these structures and boat and barge hulls. The small size of the creature, and its thin shell, along with its great numbers, creates problems in beach areas as there are reports of injury to humans wading in the shallow water and receiving dangerous cuts and abrasions from the sharp broken shells.

Suckers, carp, and channel catfish, as well as diving ducks, seem to feed upon the mussels in great number. Whether this provides any meaningful control of the mussel, or a quality food for the fish and fowl, is not known, although it has been observed diving ducks are more abundant locally in areas where there are a large number of Zebra Mussels.

Eurasian Watermilfoil (*Myriophyllum spicatum*) is also an introduced species. This plant spreads aggressively by both seed and vegetative means and can crowd native plant growth from long established habitats. Over time, its more aggressive growth habit will crowd out native plant species and produce a monoculture of a single species. Eurasian Watermilfoil primarily grows with its leaves forming a floating mass on the water's surface, with very little under water. In nature, diversity is valued because it produces a wider variety of habitats. The myriad of invertebrates that provide food for fish thrive on the below water fine leaves of native plants and the growth habit of the milfoil does not provide this abundant habitat, thereby reducing the number of insects for fish food. Diving ducks also eat tubers produced by the native wild celery and sago pondweed. The milfoil, which over time will crowd out these native species, does not produce tubers.

The impact of the Endangered or Threatened species in the Port of La Crosse is the added responsibility attached to all human modifications of the existing habitat, whether it be the addition of piling at a barge terminal or fleeting site, maintenance dredging in an existing channel, or construction of a bridge. All construction and dredging projects must be permitted by the Corps of Engineers and Wisconsin or Minnesota Departments of Natural Resources. In addition, on Minnesota projects the Minnesota Pollution Control Agency could be involved if water discharges will occur from the facility.

The non-native animal and plant species are introduced into new habitat by hitching rides on boat or barge hulls, in bilge water of boats and barges, or in transporting of live bait from one water body to another. In the case of the Mississippi River system, upstream exotics in particular will gradually move down stream by natural water action. The Harbor Commissions could conduct a recreational boater education campaign by posting signs and distributing brochures which would reemphasize the work already being done by other natural resource agencies, to ask boaters at access ramps to clean their boat hulls at the waters from which they have just taken their boats, so as not to carry Zebra Mussels, milfoil, and other exotics into new locations.

New Land Use Issues

Individual land use issues, such as the new bridge, construction of new hotels and restaurants, former Mississippi Dock property, and availability of the Mobil site for reuse, have already been discussed. The general practice of the riverfront becoming the scene of apartments, and other "non-transportation or industry" type uses requires a relook by the harbor commissions. Perhaps the two uses are compatible, but history recalls concerns of non-compatibility expressed by developers of commercial and residential properties after the structures have been built and occupied. Will future hotel and retail commercial use be compatible with the existing industrial and transportation use, such as AGM and Holnam? The Mississippi Dock site and related land area adjacent to the City Brewery take on new meaning in view of the still uncertain future of the brewery. Will preserving a barge access and storage area at that location be important? What role should the Port of La Crosse (*this is a coined word for the two harbor commissions working together*) take in determining the future of the Mississippi Dock site, and the Mobil site? These are issues which the Harbor Commissions, as well as the other City and County agencies must address in future economic development and land use decisions in the waterfront area.

The current land redevelopment area being pursued by the City encompasses the Mobil site described earlier plus the area south of the La Crosse River between the Mississippi River and Copeland-Third Street, and south to State Street. The actual water front land within this redevelopment area south of the La Crosse River is already dedicated as public recreation use in River Side Park, with a commercial use dock for the *La Crosse Queen* day excursion boat. The general character of the broader river front area is being determined by the land use decisions made in this area.

6. PORT POLICY AND POLICY RECOMMENDATIONS

Organization:

- 1) CONTINUE THE COOPERATION BETWEEN THE CITY AND COUNTY HARBOR COMMISSIONS AND CONTINUE TO INVESTIGATE THE ADVANTAGES AND DISADVANTAGES OF MERGING THE TWO COMMISSIONS

Background and Current Status

At the time the separate harbor commissions were formed in 1983 there were reasons for that decision. Time has moved forward and many of the reasons and conditions for the formation and existence of two harbor commissions have ended and the current mood is reflected in the attendance of at least one member from either harbor commission at the other commission's meetings, and in the occasional, at least once per year, joint meetings and harbor tours.

Recommendations

Continue the sharing of meeting notices, joint agendas, and joint meetings and harbor tours between the City and County Harbor Commissions. Joint appointment of at least one commissioner to both commissions would not be an unreasonable expectation. Look at the advantages and disadvantages of merging the two commissions, but do not allow this examination to get in the way of the existing cooperation.

Rationale

Although two harbor commissions may exist legally, the Port of La Crosse is viewed as, and functions as, a single entity. Five proprietary, one special purpose, and three public docks exist in the City, and three proprietary and one public dock are located in the Town of Campbell. Regularly permitted fleeting space for 37 barges is located in the City and for 15 barges at the County owned fleeting site. The Port of La Crosse depends upon the resources of both the City and County Harbor Commissions to operate effectively, and their continued trust and cooperation is vital to the Port's success.

Estimated Cost and Funding Source

Each unit of government will continue to support the operations of its respective harbor commission as has been the case in the past, and ownership of, and income from, the publicly owned facilities will continue to rest with the respective unit of government now owning them.

Responsibility

The Common Council and Board of County Supervisors, by adopting this recommendation, agree that the two harbor commissions will continue to cooperate in sharing meeting notices, and in occasional joint meetings, and will agree to consider the approval of a joint member to each of the commissions.

Timetable for Implementation

Since the cooperation is already ongoing, implementation of this part of the recommendation will be immediate. The consideration of a joint member can be done at the time of the next regular harbor commission appointment period, or anytime thereafter.

Land Use:

- 2) THE HARBOR COMMISSIONS WILL BE RECOGNIZED AS THE LOCAL SURFACE WATER USE AUTHORITY AND AS AN EQUAL PARTNER IN WATERFRONT USE AND DEVELOPMENT DECISION MAKING

Background and Current Status

Long range land use planning and land use decisions within the City of La Crosse is a complicated procedure potentially involving several agencies. Private land use decisions within the City are regulated by the zoning procedure, decisions involving publicly owned land are made by the appropriate board and department such as Parks or Public Works, and lands in specially designated redevelopment areas also involve the Redevelopment Authority. The City Harbor Commission has been included for information and recommendation on land use issues directly involving waterfront use of city owned land.

Land use decisions in the County are perhaps less complicated. All Towns have ratified the County zoning ordinance, and private land use decisions are made in compliance with this ordinance. Publicly owned or leased land is controlled either by the County Parks department, Harbor Commission, or another appropriate County agency. Other than the Harold Craig Fleeting Site, the County Harbor Commission has not been involved in land use decision making in unincorporated areas.

Both harbor commissions have been involved directly in surface water use. The County Board or City Council adopts the recommendation by the appropriate harbor commission. The County Harbor Commission is the lead agency in establishing and marking "No Wake Zones". The difficulties presented the commissions in this task because of confusion in the state administrative rule authority are being addressed.

Recommendations

It is recommended that the appropriate harbor commission be included as a review and advisory agency on all land use recommendations and decisions on all land, within the jurisdiction, having actual water frontage, and as an approval capacity on land use decisions which may impact commercial harbor use or marina and boat ramp use.

Rationale

Land use decisions can not be made in a vacuum ignoring the impact of that decision on other land. The rationale and legal justification for zoning ordinances is based on the impact land use decisions have on adjoining or other lands belonging to others. Land use decisions which adversely, or positively, impact waterfront use are a legitimate concern of the harbor commissions charged with administering the "Port of La Crosse". The pages 6-3 and 6-4 from the *Port of La Crosse Harbor Inventory and Plan 1988* are recommended for further information and rationale.

Estimated Costs and Funding Source

The cost of land use reviews is already known to units of government as these reviews work their way through various agencies and boards, and ultimately to the Common Council or Board of Supervisors. The addition of another governmental reviewing agency on waterfront reviews will add some cost such as meeting notices and other mailings. If the Harbor Commission meets on a regular frequent basis, much of this cost can be absorbed in the already existing expense for those meetings. Opportunity cost of the developer proposing the land use change will increase as another possible “delay” factor is introduced into the flow of decision making. The permit review fee required for developers could include the governmental costs incurred by including the appropriate harbor commission in the formal review process.

Responsibility

The appropriate governing body will make the decision to include their harbor commission in land use review and debate on lands impacting commercial or recreational water use.

Timetable for Implementation

The creation of this formal inclusion of the harbor commission into the land use review process should be implemented immediately.

Safety:

- 3) EACH HARBOR COMMISSION WILL CONTINUE TO ESTABLISH AND PUBLICIZE “NO WAKE ZONES” WITHIN THEIR JURISDICTION

Background and Current Status

Both Harbor Commissions have cooperated to identify areas of surface water within the Port of La Crosse where speed of watercraft and the accompanying wake created by that speed are hazardous to adjacent land uses, moored watercraft, and other transiting watercraft. The County Board of Supervisors, upon advice of the harbor commissions, is the lead agency for “No Wake” ordinance development and adoption. “No Wake” or speed restrictive zones are marked by buoys and signs properly permitted and conforming to Uniform Waterway Marker standards. Regulatory signs have been placed at all public access points to Pools 7 and 8 in La Crosse County, and by signs on the bridges at the actual site of the zones. The posting and permitting requirement was challenged and, at this time, new state administrative rules are being adopted that will be consistent with La Crosse County posted regulatory signs.

Recommendations

The La Crosse County Board of Supervisors should continue to be the lead regulatory body, upon consultation with the harbor commissions, to adopt, mark, and enforce local boating regulations and “No Wake” zones on surface waters as appropriate within the Port of La Crosse.

Rationale

Various studies, including one cited in this Plan, Chapter 4, have established the surface water area recommended for safe operation of recreational craft to be in the range of something over 15 acres per active watercraft. When the density approaches the 10-15 acre per watercraft point, “special studies” should be undertaken. The initiation of no-wake and speed restrictions in these areas is a legitimate response to the density per acre of active watercraft. Pages 6-14 to 6-18 of the *Port of La Crosse Harbor Inventory and Plan 1988* are recommended for further information and rationale.

Estimated Costs and Funding Sources

The County will continue to support the Sheriff's boat patrol and the erection of signage, publication of maps and brochures and other methods to publicize the boating regulations.

The City will continue to support the County's efforts, and will continue to support the erection of signage and other methods to publicize the No Wake zones.

Responsibility

The County Harbor Commission has been the lead agency in this effort, with assistance from the City Harbor Commission where appropriate. The County Board of Supervisors is the enforcement authority through the Sheriff's boat patrol.

Timetable for Implementation

Immediately and on-going

- 4) SUPPORT THE CONTINUED OPERATION AND APPROPRIATE EXPANSION OF THE SHERIFF'S BOAT PATROL AND ONGOING BOATING SAFETY ENFORCEMENT BY THE DEPARTMENT OF NATURAL RESOURCES AND U.S. COAST GUARD

Background and Current Status

The La Crosse County Sheriff operates a patrol boat staffed by full-time officers on weekends and holidays during the summer boating season. Until recently, special deputies were used, but currently full-time officers are used on the patrol. The patrol not only enforces the No Wake zones described in Recommendation 3, but also enforces all boat safety and general laws both on water and on adjacent shore areas, beaches and sand bars as appropriate. The boat and deputies also are available for search and rescue work as needed. The Wisconsin and Minnesota Departments of Natural Resources wardens include boating safety enforcement in their patrol responsibilities and enforce state boat rules, including buoy violations. The U.S. Coast Guard on-going boating safety responsibility is primarily through the placement and maintenance of boating safety devices such as buoys, navigation signs and lights, the licensing of commercial boat pilots and crew, and operational inspection of commercial watercraft. All these agencies publish brochures and pamphlets on boating safety and periodically hold formal training opportunities for recreational boaters.

Recommendation

The harbor commissions support the continued operation, and expansion as appropriate, of the La Crosse County Sheriff's boat patrol. The boat patrol will be staffed by appropriately trained sworn officers, will operate within the entire jurisdiction of La Crosse County, including the waters within the City of La Crosse, and will cooperate with other water safety and law enforcement agencies such as the Cities of La Crosse and Onalaska, and Towns of Shelby and Campbell Police departments, the Houston and Winona County Sheriffs, and the Minnesota and Wisconsin Conservation wardens.

Rationale

Any law, whether it be the establishment of No Wake zones, eliminating operating while intoxicated, or controlling loud noises at beach parties, ultimately requires an enforcement arm. The Sheriff's boat patrol is capable of performing this function, using trained professional officers. Keeping the waters and otherwise inaccessible shore land areas safe for all to enjoy is a necessary function of government, and the Harbor Commissions should support this function. The greater expertise and financial resources of the state and federal agencies which prepare boating safety materials should be taken advantage of and utilized as much as possible.

Estimated Cost and Funding Source

The cost for the existing service is already being borne by the County. The placing of full time officers into the patrol rather than the use of special deputies will increase the overall cost, but will result in a more consistent and controlled policy. Special grants from the Department of Natural Resources and Coast Guard should be investigated to help support and expand this service. State of Minnesota and Houston County funding should also be investigated, as Houston County has periodically operated a boat patrol for many years.

Responsibility

The County Sheriff is the logical unit of government to support this law enforcement patrol, and disseminate the boating safety materials. Use of the Sheriff Patrol entirely within the waters of the La Crosse City limits, such as Swift Creek, should also be considered, since in a practical sense the Sheriff is the only local agency routinely actually having a capable boat in the water. The harbor commissions can assist with sign posting and distribution of educational materials as appropriate.

Timetable for Implementation

The current level of patrol, with full-time officers, should be continued, and the Sheriff should begin a study of the patrol's successes and operating history to determine if expansion of the operating hours and /or the addition of an additional boat is necessary or effective.

5) IMPLEMENT A RECREATIONAL BOATING SAFETY EDUCATION PROGRAM

Background and Current Status

The U.S. Coast Guard, a uniformed military service operating within the U.S. Department of Transportation, the Coast Guard Auxiliary, a civilian, largely volunteer adjunct for carrying out certain Coast Guard boating safety responsibilities, the Army Corps of Engineers, a Department of Defense agency, and the Wisconsin Department of Natural Resources, among other agencies and groups, are all concerned with boating safety education and enforcement. In spite of these efforts, there is still much evidence that many pleasure boat operators are either willfully or ignorantly violating even the most rudimentary boating safety and "rules of the road" laws.

There is no local County or City agency, other than the Sheriff's boat patrol, that is organized or charged with the responsibility of coordinating and supporting boating safety at the local level. Education of the public of the applicable rules is an important part of enforcement.

Recommendations

The Harbor Commissions should work with local law enforcement agencies in the establishment of a boating safety education strategy to educate the public and pleasure boat operators regarding boat safety and marine rules of the road. Resources of existing agencies regarding boating safety education should be utilized by the harbor commissions in designing and implementing an effective boating safety strategy.

Rationale

Many new boat owners or operators of both large and small recreational watercraft may not even be aware there are prescribed rules of right-of-way, lighting, and boating operation regulations. Some boat operators are aware of boating safety but choose to ignore those rules. Whatever the reason, the violation of standard boating safety rules places both the violators and the general boating public in danger, including the loss of life.

Estimated Cost and Funding Source

Printed materials, videos, audio spots, staff assistance, and technical assistance is available from the federal and state agencies discussed earlier. These materials are available free or at low cost to responsible local sponsors. Local staff time from the Harbor Commissions would be a combination of volunteer assistance and County/City staff time.

Responsibility

The County and City governing boards should authorize the Harbor Commissions to engage in this coordination, and the Harbor Commissions would develop a plan for involvement in boating safety promotion and instruction.

Timetable for Implementation

The City Common Council and County Board of Supervisors can add the additional responsibilities at any time. The timetable for preparing an implementation schedule is recommended to be developed over a two year period.

6) REDUCE THE CONFLICT, OR POTENTIAL CONFLICT, REAL OR PERCEIVED, BETWEEN COMMERCIAL BARGES AND PLEASURE BOATS IN THE PORT OF LA CROSSE AREA.

Background and Current Status

At the time the 1988 Plan was prepared the conflict, or perceived conflict, between barges and pleasure boats was widely discussed and was a pervasive factor guiding the development of that plan. During the preparation of this 1999 plan this issue has not been as much in the forefront; however the same concerns remain as areas of concern.

The following is excerpted from the Background from the 1988 Plan:

“Recreational boating covers a wide range of boat types and user interests, from fishing flats, to sandbar houseboats, to speedboats and water skiers. These diverse craft, and owners’ interests sometimes create conflict within the recreational boating community, but many recreational boaters, regardless of their

conflicts with other recreational users, usually ally themselves against the commercial towing industry. In addition, non-boating river viewers often are concerned about commercial towing operations. The reason for this objection to barges, barge terminals, and fleeting areas varies, but can be summed up as: Safety Concerns -1) Parked or fleeted barges can block vision for boaters emerging from a side channel into the main channel, and also for boaters approaching these side channels and slips. 2) Moored barges could break loose and drift down river into boats, shore improvements, or beaches and cause long term damage, especially if they are damaged and leak toxic materials. 3) The bow waves generated by pleasure craft strike the large flat sides of the moored barges, or man made dock walls, and according to the testimony presented at a public hearing on a specific site, these waves bounce back causing an 'echo wave' effect which can create turbulent water conditions. A more natural shoreline breaks up the initially generated wave, without echoing it back. 4) Moving tow boats and barges, because of their large size, somewhat restricted visibility (to the pilot) and comparative lack of maneuverability are perceived as a direct safety threat. Professional tow boat pilots are dismayed at the lack of training, and often unpredictable movements of some pleasure boaters. Esthetic Concerns - Beauty is in the eye of the beholder! Never is this more true than in dealing with barges and related activities. Many pleasure boaters, and river viewing tourists, enjoy the diversity of the commercial riverfront and the historical connection between the early steamboat era and modern towboats. Other boaters and river front visitors feel the moored barges and industrial terminals intrude upon the natural river scenery. Biological Habitat - There exists in the scientific literature and sworn testimony at public hearings, sufficient evidence to support the observation that tow boat operations, especially maneuvers required in terminal areas, in some circumstances, disturb natural fish spawning and resting habitat and other aquatic resources. The physical presence of barges or terminal facilities can limit access to certain portions of the river by fishermen. Two conditions, acute spills, which is an emergency caused by an accident; and chronic spills, which is a result of routine operations, each cause harm to the environment and will be present, or potentially present wherever there are barge terminals."

Recommendations

The 1988 Plan contained 13 sub-recommendations to support Recommendation 6, and the supporting rationale to help meet the stated challenges. After much study and debate, these have been reduced to 8 sub-recommendations.

- 1) *Increase understanding between recreational boaters, commercial tow pilots and the commercial towing industry, and "environmentalists". This educational process could include "open houses" at commercial river terminals, harbor tours with an emphasis on the commercial freight role of the Port of La Crosse, video tape view from the pilot house of a 15 barge tow of what a tow boat pilot sees, and more importantly doesn't see, as a tow maneuvers out of a lock, or past a marina. It is often the transient, line-tow pilots who are less aware of the environmentally sensitive Upper Mississippi than the local fleeting companies. A traveling river biologist program, arranged with the line tow companies, could actually ride a tow boat and point out to the non-resident pilots where environmentally sensitive areas are, and what impact an improperly operated tow boat may have on those areas.*
 - 2) *Increase safety and operational training and sensitivity of recreational boaters. This could include: A) Support state or federal legislation for boat operators licensing or mandatory training; B) Support efforts to strengthen penalties and enforcement of laws regarding drunk or drugged boat operators; C) Continue to support, as a permanent commitment, public boat patrol staffed by sworn officers and an adequate water craft. The periods of operation should at least cover weekends, holidays, and other selected periods during the navigation season.*
 - 3) *Encourage appropriate law enforcement agencies to keep better records of recreational boating accidents, especially the least reported "recreational vs. recreational", as well as "near misses" between recreational and commercial. The extent of the actual accident problem can not be evaluated until accidents are recorded and analyzed as to location and cause.*
-

- 4) *Review the “No Wake” zone procedure and adjust zone boundaries in accordance with the applicable state and federal laws and with the safety and conservation intentions established by the two Harbor Commissions. Continue to designate and enforce the “No Wake” procedure in accordance with the appropriate state and federal laws.*
- 5) *Carefully weigh the impacts of expansion to existing, or additional, commercial barge terminal sites. Discourage the fleeting of barges in the Black River unless those barges are being used for terminal sites on the Black River.*
- 6) *If new recreational boating marinas are established for overnight or seasonal docking or storage of pleasure boats such sites will be encouraged to provide a full range of basic services such as fuel, water, garbage collection, and sanitary disposal of waste water.*
- 7) *Maintain the barge fleeting capacity at the Midwest Industrial Fuels Fleet at 9 regularly permitted spaces with an over-capacity capability, for a total of 12.*
- 8) *If congestion reaches a point where it is deemed necessary, the Harbor Commissions may limit the switching time of barges where possible by day or hour in congested movement areas. Line boats pass through the Port of La Crosse at any time or date and local switch boats may have to add or remove barges at those times which cannot be controlled by local conditions. Local switching of barges between fleets and terminals is an action which could possibly be regulated or voluntarily practiced by the commercial towing industry.*

Rationale

This overall recommendation contains several sub-recommendations, all aimed at reducing conflict between commercial barges and commercial terminals and recreational boating and environmental and esthetic interests. Rather than strict prohibition of one use in favor of another, it appears all uses may have to make changes to be more compatible with different neighboring uses.

Estimated Cost and Funding Source

This recommendation in many ways sums up several other recommendations which the harbor commissions should follow, and it represents the continuing or on-going nature of administering the Port of La Crosse. All decisions have impact on other things, and as pointed out in other recommendations, a part-time staff position to perform ongoing data collection and planning on port activities should be established, or the duties assigned to a current position.

Responsibility

The two harbor commissions must continue their planning dialog, and make appropriate recommendations over time to the County and City governing bodies. Some recommendations may appear to be contradictory, but the intentions behind the recommendations must always be kept foremost in the decision making process.

Economics:

- 7) THE HARBOR COMMISSIONS SHOULD INSURE THAT THE AVAILABILITY AND BENEFITS OF WATER TRANSPORTATION AT LA CROSSE ARE EMPHASIZED AND
-

PROPERLY EXPOUNDED WHEN INDUSTRIAL DEVELOPMENT PROMOTIONAL WORK IS PERFORMED BY ENTITIES SUCH AS LA CROSSE AREA DEVELOPMENT CORPORATION (LADCO), NORTHERN STATES POWER COMPANY (NSP) AND DAIRYLAND POWER CO-OP/ENPOWER, WISCONSIN DEPARTMENT OF COMMERCE, AND CITY AND COUNTY OF LA CROSSE.

Background and Current Status

Several agencies, such as La Crosse Area Development Corporation (LADCO) and Wisconsin Department of Commerce, promote industrial development in the La Crosse area, but the availability and capability of transportation by water must continue to be stressed.

Recommendations

To emphasize and market the “Port of La Crosse” the Harbor Commissions must be the educational resource for waterborne transportation and provide this information as appropriate to agencies involved in industrial development efforts.

Rationale

There are two human figures which appear on the Wisconsin State Seal, a miner and a sailor. Wisconsin is known as an agricultural state and for its forests and recreational resources; but its maritime history and current maritime transportation capability is sometimes not as well known, especially on the “west coast”. La Crosse is Wisconsin’s largest Mississippi River port, and the largest inland waterways general cargo port serving central and northern Wisconsin and Upper Michigan. Cargo capacity exists at La Crosse to handle additional tonnages of such regionally transported products as grain, coal, rock, fertilizer and components, palletized and containerized cargo, and chemicals.

Estimated Cost and Funding Source

The Harbor Commissions would not take over the duties of the existing development promotion agencies. The provision of information would impose a certain amount of additional staff time.

Responsibility

The two Harbor Commissions would assume responsibility for this informational effort.

Timetable for Implementation

Immediately

Operations:

- 8) RESOLVE THE FLEETING SITE SITUATION BY DETERMINING THE STATUS OF EXISTING FLEETS REGARDING “REGULAR VS OVERFLOW” PERMITS, FUTURE NEED, SHORTAGE, AND/OR CONFLICT OF SITES WITH ESTABLISHED COMMERCIAL TERMINALS AND MARINAS

Background and Current Status

The location of barge fleeting and storage sites was a major issue in the 1988 Plan. That Plan helped resolve some of the then prevalent issues, and the situation has stabilized to a great extent by 1999. One

of the recommendations to come from the 1988 Plan, which is being carried out in current operating practice is to limit barge fleeting and transit through the Black River to those barges that will actually be used to serve industries located on the Black River. The Hintgen Island/Broken Arrow fleeting site has now been formally constructed and is known as the **Harold Craig Fleeting Site**. This site accommodates **15 barges**, and is owned by La Crosse County and leased to Brennan Marine Inc. (BMI). The Craig site was at least partially intended to be a staging site for making up tows, a different function than storage, and its use as a storage site reduces or eliminates its function as a staging site. **The Isle La Plume Fleeting Site** has a permit allowing the fleeting of **15 barges** in a 5 long X 3 wide configuration on a regular basis, and, upon notification to DNR, can accommodate an additional 17 for a total of **32** in an 8 long X 4 wide configuration. This site is owned by the City of La Crosse and leased to BMI on a ten year lease. **The Isle La Plume City Dock** is leased by the City to BMI on an annual basis, and normally accommodates **4 barges**, with the overflow capacity of an additional 4, for a total of **8 barges**. This comprises a total of **34 barges** that can be fledted on the south side, Main Channel, without DNR notification. An additional **21**, or a total of **55 barges**, can be accommodated with proper notice to the local water regulation staff at DNR in La Crosse. On the Black River the **Midwest Industrial Fuel Site** is permitted for **9 barges**, with DNR permission allowing another **3** for a total of **12 barges** under overflow or excess conditions. The **Mobil Site** has been allowed by DNR in the past to accommodate up to **15 barges** in a capacity overflow situation, and also the **NSP Site** has been allowed in the past to take up to **15 barges** on an overflow basis. Currently DNR has taken a strong opposition to any use of the NSP or Mobil Sites. The **Robers Site** is also permitted to handle **6 barges**, but on-going operations at this site rarely allow for any fleeting. In a practical sense the “permitted” fleeting capacity at the Port of La Crosse is **43 barges**, with an additional **24** spaces which can be made available at the existing sites upon notification to DNR and the appropriate harbor commissions, for a total of **67** spaces in regular or relatively obtainable use. The 30 spaces at NSP and Mobil that can be permitted for emergency use, and the 6 spaces that are theoretically available at Robers, but in practice rarely available, should not be relied upon to meet long term fleeting needs. The recently evolved shipping patterns portend a need for additional, reliably available, fleeting space in the Port of La Crosse. The Table in Appendix B illustrates the current fleeting situation.

Recommendations

The Port of La Crosse, coordinated by the two harbor commissions, should compile a written registry of all fleeting sites both currently in use, or those that have been used historically, and specifically list the current actual **permitted** spaces at each site (i.e. those sites and spaces authorized in advance by DNR so that notification is not required each time a barge is moved in or out of the space), the current sites and spaces (configuration) authorized for **overflow or excess** barges which require notification to DNR before they are used. (Is actual specific permission required before a barge can be placed, or is “after the fact” notification considered adequate), and **emergency** sites should be identified that are capable of accommodating barges in a true or unplanned emergency situation. A definition of “overflow” should be established in terms of its frequency and duration, and “overflows” which occur more often than the agreed upon definition should be classed as “normal” load and a search for additional permanent fleeting sites should be triggered. This defining and searching will be an on-going process of Port of La Crosse administration for the two harbor commissions.

Rationale

The number of barges handled by the Port of La Crosse each season appears to be stabilizing the last few years in the upper six hundreds. The timing with which these barges are received with the Port has changed and the dynamics of the various cargoes handled make it difficult to smooth out the flow to a steady number per week. The nature of the business is such that barge numbers will frequently flush from very low to very high in a short time period, thereby requiring “overflow” fleeting capacity on a regular basis. Additional users, or increased volumes by current users, is an economic goal being pursued by

economic development forces in the County and City, including promotion by the Harbor Commissions. If successful the total number of barges handled by the Port of La Crosse could increase.

Although a working arrangement between the local barge fleeting service and the DNR seems to have been arrived at, there are frequently questions by the public, as well as Harbor Commissioners, as to just how many and where barges are actually permitted, and by whom, at any given time. Given that one of the goals of the 1988 Plan was to reduce the unnecessary transiting of barges through the Black River, it is entirely possible there could be available authorized “regular” fleeting spaces at the MIF Site and still be a legitimate need for the fleeter to request the use of “overflow” spaces at the Isle La Plume Site if the barges are intended for use at AGM or Holnam; however this policy should be documented formally by the Harbor Commissions if the Harbor Commissions are assuming the role of administrator of the Port of La Crosse.

Estimated Cost and Funding Source

If the Harbor Commissions are going to assume the role taken by Harbor Commissions in other port cities and administer the Port of La Crosse as a major distinct entity there may be need for a “Harbor Master”. Rather than sounding intimidating, a Harbor Master or Captain of The Port could be an existing staff person of either the City or County who is appointed to coordinate the administration of the two harbor commissions and who keeps track of the permit requests, business cycles, boating trends, requests for information from the public etc. of the La Crosse area waterfront and water use. It is not anticipated such a position would be full time, or require a separate office or support staff. If the two harbor commissions are combined into a single commission, they might consider supporting a Harbor Master position, as currently each commission does utilize some staff time from existing City Planning Department and County University Extension staff. Funding could include City and County of La Crosse, Chamber of Commerce, LADCO, La Crosse Convention and Visitors Bureau and possibly DOT and DNR.

Responsibility

The Common Council and Board of Supervisors will accept the responsibility to take a more active hand in administering and keeping track of, the myriad of activities that compose the Port of La Crosse, and the two Harbor Commissions will prepare a more formalized procedure for classifying fleeting sites and being aware of their day to day operations and potential. The harbor commissions will engage in active monitoring of the need for additional capacity of both barge and recreational craft facilities and coordinate the search for such capacity.

Timetable for Implementation

The administration and coordination of the fleeting facilities can begin immediately and will be an on-going responsibility.

- 9) INSURE THAT AT LEAST ONE AND PREFERABLY TWO, FOR COMPETITIVENESS, PORT OF LA CROSSE RIVER TERMINALS HAVE INTERMODAL RAILROAD TRANSFER CAPABILITY.

Background and Current Status

Currently there is direct rail service to dockside at the F. J. Robers commercial general service public terminal, and rail service to companies which operate proprietary terminals at Hydrite Chemical, Midwest Industrial Fuels, and Westway Trading Company, all provided by the Canadian Pacific Railroad. There is no rail service on Isle La Plume to serve either the South City Dock or Hanke Terminal, each of which are general service public terminals. The Division Street Dock, which has in the past served as a public terminal but is now serving as a proprietary dock, and the proprietary water terminals at Holnam Cement

and Agri-Grain Marketing are currently not served by rail. The North Municipal Dock, a public dock, is not currently served by rail, nor are the NSP or J.F Brennan proprietary docks.

In the early 1970s rail service through the central La Crosse riverfront, and Riverside Park was a rail line extended between the south connection with the Burlington Northern Railroad via the Heileman Brewery, and the north connection through the marsh and through the north side of La Crosse to the Burlington Northern Railroad and the Milwaukee Railroad. It served the Agri-Grain Marketing grain elevator which was then operated directly by the parent company, Cargill, however the rail configuration at the elevator did not have sufficient car storage or pass through capability to fully take advantage of rail delivery of grain. There was no direct service to the cement dock nor the Division Street Dock, although the Front Street side of La Crosse Plumbing was accessed by rail.

The passage of the rail line from the south connection with the Burlington Northern Santa Fe to the brewery complex and potential service to Isle La Plume and/or Division Street is via the rail line which currently passes through the Gundersen-Lutheran medical campus.

Recommendation

Currently only one general purpose terminal is served by rail. The harbor commissions should investigate the engineering feasibility and cost of extending rail service to at least one selected general cargo public terminal, so as to ultimately provide a competitive choice situation in the Port of La Crosse. If such extension is found to be technically feasible, the harbor commissions should sponsor a cost/benefit study for such extension, especially if the service would benefit a publicly owned terminal, such as the North or South City Docks.

Rationale

Since most transportation experts agree the type of heavy or bulk freight most commonly handled by barges is also the type of freight that is most likely to benefit from the lower rates and large volume and weight capability offered by railroads, it appears La Crosse could enjoy a better competitive freight handling situation if more than one general purpose terminal were served by rail. Pig iron brought by barge across the North City Dock was moved to users by truck and rail. The move by rail required trucking to another location on the north side for further loading to rail. A more competitive situation would permit direct loading from barge to rail, or at least barge to storage to rail without the interim trucking move.

A barge typically holds about 15-18 carloads of material. For an intermodal transfer facility to work efficiently, a lead track capable of handling 20 cars on a pass by load/unload operation is necessary. Some of the potential rail served sites, such as the AGM elevator, may not be able to accommodate the most efficient use of rail, but it could have the on-site capability to handle fewer cars at a time.

Estimated Cost and Funding Source

For the 1988 Plan the Department of Transportation District Office made an estimate of the cost to extend a rail spur to the South City Dock on Isle La Plume from the existing Burlington Northern City Line which serves the brewery. At that time, the admittedly "rough" estimate was \$750,000 to \$1,000,000. The Isle La Plume harbor area is an old land fill site which would require special treatment.

Responsibility

The harbor commissions should ask the Department of Transportation or the City Engineering Department to update the cost estimate for extending a railroad line to one other general service public barge terminal.

This remains a viable recommendation. An issue has been raised that there is currently not enough waterborne freight business in La Crosse to support two separate general service railroad served terminals. The harbor commissions should at least have the rail engineering and construction costs at hand as they decide this issue, and the City Public Works Department should keep the corridor available for potential future rail service.

10) INCREASE NAVIGATION SAFETY THROUGH, AND REDUCE THE CHANCE OF MECHANICAL FAILURE OF, THE CANADIAN PACIFIC RAILROAD BRIDGES OVER THE BLACK AND MISSISSIPPI RIVERS.

Background and Current Status

Both of the center pivot movable railroad bridges which carry the Canadian Pacific Railroad (CP) tracks across the Black and Mississippi Rivers are now over 100 years old. There has been concern, primarily expressed by the river shipping industry, that a mechanical failure could prevent either bridge from being turned, thereby blocking either river channel to commercial traffic. The other side of this could result in a failure while open, thereby closing the rail traffic, or a half open position, effectively blocking both water and rail. Since the Mississippi span is moved more frequently, and is the main channel of interstate barge traffic, the main span was considered the more critical.

In September 1998 CP Railroad Bridge and Building superintendent Andy Anderson stated that a new main channel bridge is in the railroad's 3 to 7 year plan, (*10 years at the very latest*). The bridge will be replaced with funding from the Truman-Hobbs Act. The Coast Guard wants the movable portion of the bridge moved toward the east, or closer to Wisconsin by about 30 feet. The west end of the new bridge will be on the Wisconsin side of the channel. The Black River bridge is not eligible for Truman-Hobbs funding and most likely will not be replaced. The bridge most likely will be repaired with new floor beams and new ties and rail. The line gets about 30 trains today, including one Amtrak train each way. The current Mississippi River bridge is 351 feet long and the Black River bridge is 306 feet. The new main channel bridge will possibly have a 200 foot lift span rather than a revolving span.

Recommendations

The harbor commissions should continue to monitor this situation, and consider keeping in contact with the appropriate federal congressional representatives to help insure the federal funding is available when needed in timing with the railroad's replacement schedule.

Rationale

The concern expressed by the river shipping industry is valid, in that commercial barge tows, with the present standard line tow boats, can not pass under the main channel railroad bridge when the bridge is in a closed position. Although the bridges are well maintained, and the basic principal of operation is not mechanically complicated, there is always a risk of failure in any machinery designed to move. The railroad's investigation of funding sources to replace the bridge, and placing it on a replacement schedule is a prudent course of action.

Estimated Cost and Funding Source

These bridges are owned by the Canadian Pacific Railroad, and funding will come from that company's capital expense budget and from federal money through the Truman-Hobbs program which is designed to help fund railroad bridges over navigable waterways to maintain interstate commerce.

No local funding is involved.

Responsibility

The harbor commissions, local economic development entities, and the Wisconsin Department of Transportation should monitor the progress on this replacement project to insure it moves forward in a timely manner.

Timetable for Implementation

Immediately begin monitoring to insure the appropriate railroad and federal officials are aware of the local concern in this matter.

11) MONITOR VARIOUS POOL REACH, OR RIVER SYSTEM LEVEL, PLANNING OR PROJECTS, AND ANALYZE ANY EFFECTS SUCH PROJECTS MAY HAVE ON THE PORT OF LA CROSSE, AND TAKE WHATEVER ACTIONS MAY BE DEEMED APPROPRIATE

Background and Current Status

The Water Level Management Task Force of the River Resources Forum in cooperation with the St. Paul District, Corps of Engineers, is planning to draw down the water level in Pool 8 for the purpose of enhancing certain wildlife and fish habitat at certain locations within the pool, and there is concern, especially within the recreational boating community, that such action may result in water depths too shallow to enter certain marinas or back water areas. This draw down is scheduled to be undertaken during the 2000 open water season.

The Upper Mississippi River-Illinois Waterway System Navigation Study has been on-going since the early 1990s, and is a multi-agency, multi-discipline study of the commercial barge traffic carrying capability of the Upper River system, and is intended to determine the extent of the commercial traffic delays, their cost to the commercial towing companies, and hence their cost to users of the commercial navigation system such as agri-business, electric utilities, and other industry. By definition, this cost from delays is extended to represent the costs to all consumers in society. The broad community of people called the "environmental community" generally disagree with some or all of the engineering or operational proposals put forth by the Corps of Engineers to reduce these costs. Additional locks, lock wall extensions, powered winches to move barge cuts faster through the locks, additional mooring sites for tows waiting for lock entry, etc., as well as the greater commercial traffic assumed will be generated by these improvements, are viewed, to varying degrees, as detrimental to the natural ecological systems on the river, and to the recreational boating community. Although, among the various scenarios presented, the farthest upstream project, or the one closest to the Port of La Crosse, is the placement of mooring buoys or cells at Lock and Dam 12, Bellevue, Iowa, this "speeding up" of barge tows could result in greater capacity and eventually greater use, i.e. more tows, on the Upper Mississippi River past La Crosse, and possibly greater commercial demand on Port of La Crosse facilities. The "initial recommended plan" is scheduled for release in "mid-December 1999", with the draft Environmental Impact statement to follow in the summer of 2000.

The U.S. Fish & Wildlife Service is to begin preparing a new management plan for the Upper Mississippi River Wildlife and Fish Refuge in the spring of 2000. Upon its completion and implementation it could have important impacts on commercial and/or recreational boating interests in the Port of La Crosse.

The Environmental Management Program (EMP) is an on-going environmental planning and project design and implementation effort on the Upper Mississippi River. Examples of EMP projects in the Port of La Crosse area include the three islands created in Lake Onalaska and two islands recently created in Pool 8 at Stoddard. These projects help to mitigate habitat that is lost when commercial shipping and recreation boating sites are developed elsewhere on the river system. Loss of this EMP funding would have a long term detrimental impact on the river system for both commercial and recreational interests.

Recommendations

The two Harbor Commissions should continue to utilize the staff resources of the University Extension, La Crosse City Planning Department, Mississippi River Regional Planning Commission, Minnesota-Wisconsin Boundary Area Commission, and other local agencies to monitor the status of the various federal and state planning and project implementation activities which may have an impact on commercial, recreational, or environmental activities in Pools 7 and 8. The Harbor Commissions may then formulate a course of action if either Commission deems the proposed activity will impact the Pool in a manner not in keeping with the goals of the adopted Port of La Crosse Harbor Plan.

Rationale

The Wisconsin educated naturalist, John Muir, observed that all things are interconnected. A proposal by a state or federal agency, or consortium of agencies that is intended to enhance or carry out a particular goal of that group may in fact produce unintended side effects that are detrimental to the adopted goals of the Port of La Crosse. The Harbor Commissions represent the Port of La Crosse, and while they must also have the broader interests of the entire River System and the regional and national economy in their scope, they can not abandon their obligation to protect the citizens, economy, and environment of the River System in the Port of La Crosse.

Estimated Costs and Funding Source

Keeping informed of major River System planning and project implementation efforts is as simple as scheduling a brief update report from one of the technical staff persons named previously, or inviting a staff person from the particular federal or state agency to speak at a regularly scheduled Harbor Commission meeting. This could be done at no additional cost. A special meeting to examine a system wide plan, such as the special meeting held on the “draw down” in the summer of 1998 can be done with a minimum of additional costs for special meeting mailings. The action the Commission(s) may decide to take to influence a different course of action than the one proposed by the federal or state agency may require additional monetary expenditure for special mailings, commissioner visits to Madison or St. Paul, or fees to special consultants. This is a factor that can be controlled as part of the level of response desired.

Timetable for Implementation

In that system wide activities are always in progress, the monitoring process must also be on-going. The urgency for monitoring the decisions of the Upper Mississippi River and Illinois Waterway Navigation Study, and the Water Level Draw Down would suggest this monitoring activity should begin immediately.

Appendix A

Transient Recreational Boating Spaces Available-Port of La Crosse July, 1999

Name of Marina	Location	Total Slips at Facility	Transient Spaces Available	Other Information
Al's Marina	French Slough, on French Island 1311 La Crescent St	28 slips...24 open	No designated number-use whichever are open	Low water problem, inaccessible to larger boats
North Bay Marina (formerly Beacon Bay)	French Island-Black River	150 slips...20 open	45 designated for transients	Adjacent to Skipper Liner, walking distance to Kwik Trip and bars
Fisherman's Diner	Black River on French Island at Clinton St. Bridge	24 slips total...0 open	23 slips designated for transients, primarily for users of bait shop and diner	Walking distance to Kwik Trip, bars and La Crosse Old Towne No fuel or pump-out
Copeland Boat Stop	Black River Copeland Park	26+ slips-number open fluctuates daily	No slips specifically designated for transients	Walking distance to La Crosse Old Towne No fuel or pump-out
Midway Motor Lodge	Black River-La Crosse north side	46 slips-number open fluctuates frequently	All are "transient" but intended for patrons of bar, restaurant or hotel at motor lodge	No boat services such as fuel, pump-out, etc.
Black's Cove Marina	Black River-La Crosse north side	48 slips...1 open	No designated transient slips, but can accommodate up to 5 or 6 boats	Boat services
La Crosse Pettibone Boat Club	On Pettibone (Barron) Island	243 total slips-nine 20 ft. slips open	15 slips designated for transients	
Bikini Yacht Club	On Pettibone (Barron) Island	153 slips...20 open	40 slips designated for transients	Adjacent to hotel, restaurant and bar Full boat services

Only the facilities listed above were surveyed by telephone in an attempt to determine the "need" for transient boat spaces in La Crosse. The listed facilities were selected because of their proximity to land-side amenities and commercial districts. Other marinas in the La Crosse area were thought to be too far from the north side Old Towne or the central business district.

**APPENDIX B
Inventory of
Fleeting Sites**

Name of Site	Owner of Site	Regular Permitted Number of Barges	Configuration of Barges	Overcapacity <u>With DNR Permit</u>	Total Barges Typically Allowed	Configuration of Barges	Emergency Overcapacity	Total Barges	Total Capacity
Harold Craig Fleeting Site	La Crosse County	15	3 wide 5 long	0	15	None	0	15	
Isle La Plume Fleeting Site	City Of La Crosse	15	3 wide 5 long	17	32	4 wide 8 long	0	32	
Isle La Plume City Dock	City of La Crosse	4	2 wide 2 long	4	8	4 wide 2 long	0	8	
Total South Main Channel		34		21	55		0	55	
Midwest Industrial Fuel Site	Midwest Industrial Fuel	9	4 long X varies	3	12	3 wide 4 long	0	12	
Mobil Site	Mobil	0		0	0		15	15	
NSP Site	NSP	0		0	0		15	15	
Robers Site 1)	F.J. Robers Company	0		0	0		0	0	
Total Black River		9		3	12		30	42	
Total Port of La Crosse		43		24	67		30	97	

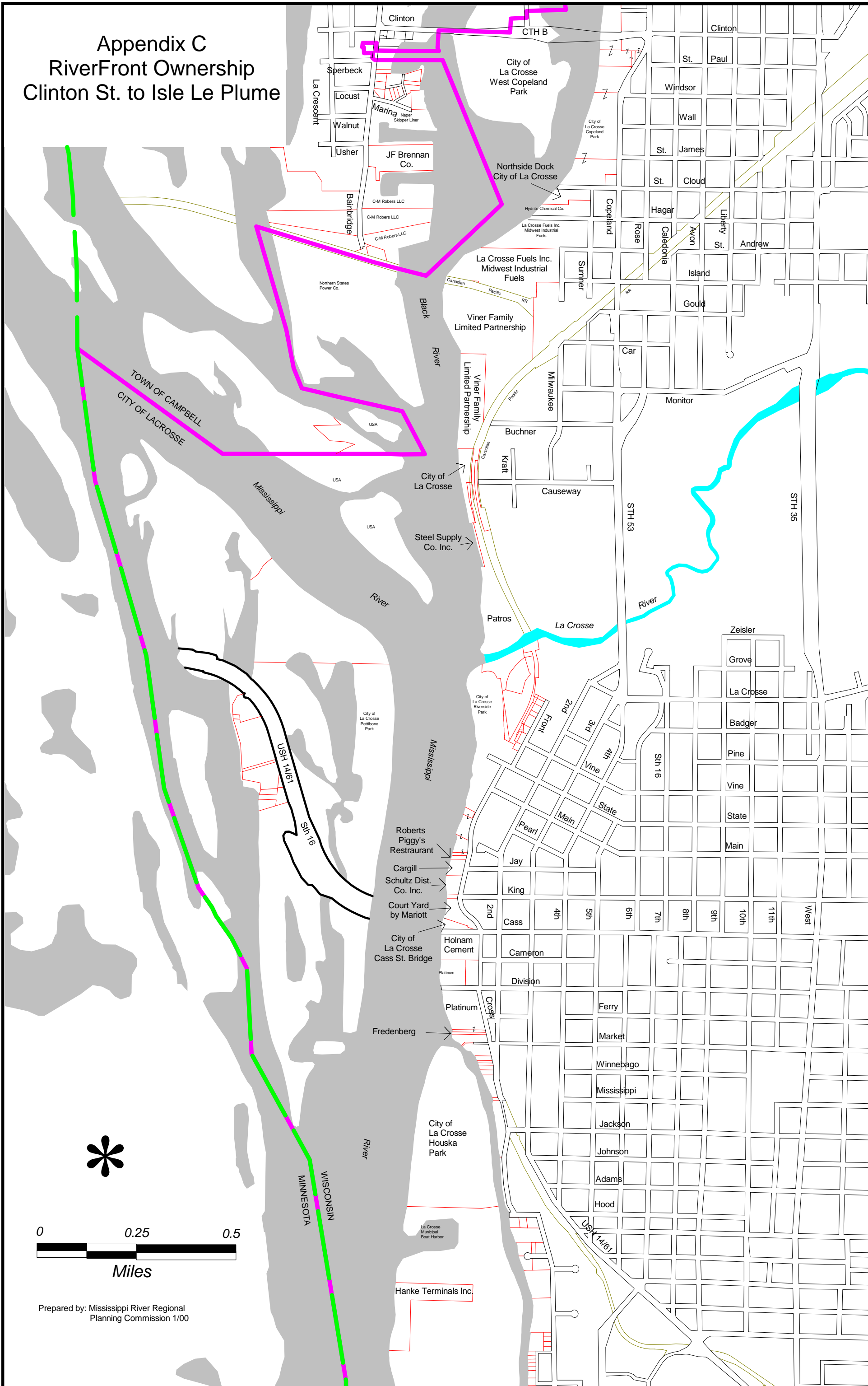
Regular Permitted capacity is allowed by DNR and the fleeting site owner by a previously issued permit. Barges may be added or removed by the La Crosse harbor fleeting operator within these limits without further notification to DNR or the site owner.

Overcapacity with DNR Permit is additional capacity allowed at sites upon notification of DNR and the site's owner. Typically this permission has been granted upon fairly short notice and without much problem.

Emergency Overcapacity is space typically not granted permits unless the fleeting operator can demonstrate a true temporary overcapacity exists.

1) The Robers Site is actually the barge loading/unloading sites and maneuvering space. This is not available for fleeting due to schedule.

Appendix C RiverFront Ownership Clinton St. to Isle Le Plume



Prepared by: Mississippi River Regional Planning Commission 1/00

APPENDIX D
Inventory of Pool 7 and 8 River Management Projects

The following inventory has been compiled to document the river management projects accomplished through public agencies for public benefit since adoption of the 1988 plan. The projects are the result of collaborative planning, funding and implementation efforts through federal, state and local government programs to meet public needs for river management. In some cases there were also private partners involved in the funding and implementation.

Pool 7 Projects

1) Long Lake Habitat Rehabilitation And Enhancement Project (HREP)

Background: Long Lake is an approximately 15 acre semi-isolated backwater lake in the upper reach of Pool 7 near Trempealeau, Wisconsin. It is within the Upper Mississippi River National Wildlife and Fish Refuge. Area suffers from dissolved oxygen depletion during both summer and winter. Lack of dissolved oxygen is seen as a limiting factor for various fish species including crappie, bluegill, and largemouth bass.

Project Objective: Provide a reliable source of fresh water to the lake to increase the dissolved oxygen levels.

Project Summary: Construction began in May 1999 and due for completion in summer 2000. A 760 foot channel will be excavated to connect Mississippi River directly to Long Lake with flow rates regulated by a 48 inch slide gate culvert. Two new rock jetties will deflect river borne sediment and debris from channel. Estimated project cost is \$649,000.

2) Richmond Island

Background: Richmond Island is approximately 100 acres in Upper Pool 7, just downstream and across the main channel from Trempealeau, Wisconsin. It is within the State of Minnesota in the Upper Mississippi River National Wildlife and Fish Refuge. It is one of many islands which are part of an extensive river floodplain ecosystem that provides nationally significant habitat for migratory waterfowl and other wildlife and fish. A unique feature of Richmond Island is an 8 acre interior wetland.

Project Objective: Stabilize approximately 900 feet of shoreline on the island's northeast side to prevent further erosion and protect the interior wetland.

Project Summary: Approximately 6,000 cubic yards of quarry run limestone was used. Construction cost was \$230,000.

3) State Island 91

Background: State Island 91 is located in Town of Onalaska, La Crosse County, Wisconsin along the main Mississippi River Channel just west of Lake Onalaska at approximate River Mile 708. The island itself is approximately 34 acres, but encompasses an approximate total of 50 acres of river floodplain forest, and fresh water wetland. Since the 1930's lock and dam navigation project was completed the north face of this island has been eroding. The valuable habitat of the protected interior wetland complex was in danger of being lost if the island barrier had breached. This wetland habitat serves nesting waterfowl, northern pike spawning, and bluegill and bass habitat.

Project Objective: It is estimated approximately 1,320 feet of the northern tip and sides of the island were protected with approximately 3,000 cubic yards of riprap in 1997. Project costs were approximately \$106,000.

4) Winters Landing, Including Bullet and No Name Chutes

Background: The Winters Landing complex is located in Pool 7 at Upper River Miles 707 and 708. This reach of river has a history of requiring frequent dredging. An analysis of the area determined the primary cause was the configuration of the wing dams which forced the channel to flow near the Wisconsin side of the river, away from the apparent natural flow direction.

Project Objective: To shift the navigation channel from the left descending side of the main channel to the right descending side.

Project Summary: Four wing dams on the right side were opened by removing 550 feet of the center section. Two wing dams on the left side were extended. Two side channels on the left side were also modified with partial closing structures (*Bullet and No Name Chutes*). The project was completed in 1989 at a cost of \$865,000.

5) Black River Delta Hydraulic Study

Background: Lake Onalaska is connected to the main channel of the Mississippi River and to the Black River by a network of secondary and distributary channels. Due to erosion and deposition and the disruption of flow conveyance, the long term distribution of water from the rivers into Lake Onalaska is being altered. The ratio of Mississippi River water to Black River water is increasing. Maintaining or decreasing this ratio is desirable due to the better water clarity of the Black River water.

Project Objective: Measure and quantify the water flow from the Black and Mississippi River into Lake Onalaska.

Project Summary: A measurement of water discharge and water surface elevation data was done in 1991-92. The study confirmed that Mississippi River inflows into Lake Onalaska increased 10% between 1981-82 and 1991-92. It also showed the majority of Black River water does enter Lake Onalaska rather than continuing on the channel to discharge at La Crosse. In 1991-92 Dodge-2 Chute had replaced Upper Dodge Chute as the largest distributary of Black River water into Lake Onalaska. Water surface elevations in the Black River delta are highest along the main stem indicating a potential for lateral breakout flows and new channel formation. The main unanswered question is whether there is a long term trend towards decreasing Black River flow to Lake Onalaska. The 1991-1992 data provides a baseline by which a trend or lack of trend, can be measured.

6) Upper Brice Prairie Landing - Recreational Fisheries Project

Background: Brice Prairie Landing provides recreational boat launch access to Lake Onalaska. The site is within the Upper Mississippi River National Wildlife and Fish Refuge, owned by the U.S. Army Corps of Engineers, and leased to the Town of Onalaska for operation and maintenance. There is a two lane concrete boat ramp with courtesy dock, a 50 car parking lot, two double stall vault toilets, and sufficient public shoreland access for bank fishing and informal picnicking. A county maintained park with additional recreational opportunities lies across County Highway ZB from the boat landing. The fisheries resource has been diminishing over the years as the areas accessible to shore fishing continue to fill in. In addition the vehicle parking and access lanes are poorly marked.

Project Objective: To dredge an area adjacent to the landing to improve fisheries habitat and shore fishing, to designate a location adjacent to the newly dredged fishing area for physically challenged fisher persons, and to improve vehicular traffic flow and parking capacity by adding signs and pavement striping.

Project Summary: In 1999 approximately 1,000 cubic yards of sediment was removed and placed on other lands for use as fill. Riprap was placed along approximately 1,000 feet of shoreline adjacent to the dredged area. A paved 25 feet x 100 feet surface was installed adjacent to the rip rapped shore line and parking bumpers were installed along the edge to hold wheelchairs. Handicapped parking areas were installed and designated and other parking and lane delineation was completed. The project cost of \$14,234 was shared by several governmental agencies and conservation groups.

7) Brice Prairie Barrier Island

Background: This island was formed in the late 1960's from material removed during the dredging of the adjoining channel. This channel provides boat access to Lake Onalaska from the Upper Brice Prairie boat landing and also serves as a fish wintering area. The island provides a visual barrier between the inhabited shoreline and the Lake Onalaska closed area which decreases disturbance of waterfowl using that area. Over time, erosion caused by wave and ice action, weakened sections of the island.

Project Objective: Since the original construction two major breaching incidents have occurred. The objective is to maintain the integrity of the island as a barrier for wave action and a visual barrier.

Project Summary: In 1986 a section of the island near Upper Brice Prairie Boat Landing that had breached was repaired with 300 tons of large rip rap, by the Wisconsin National Guard Onalaska based engineer unit and the U.S. Fish and Wildlife Service. In 1992 a breach was repaired with 1,970 tons of rip rap along 260 linear feet of shoreline and 320 linear feet was protected with a rock wedge. A terminal groin and 20 linear feet of transition area between the mound and the wedge was also constructed of riprap. Total project cost was \$45,000. J.F. Brennan Company was the contractor. The Lake Onalaska Protection and Rehabilitation District, Brice Prairie Conservation Association, La Crosse County, Wisconsin Department of Natural Resources (DNR), U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service all participated in the project.

8) Sommer's Chute

Background: Sommer's Chute is located in Pool 7 between River Miles 706 and 707. Historically this section of the river was difficult for commercial traffic to negotiate and groundings occurred frequently. The main channel that discharges via Sommer's Chute into Lake Onalaska would draw commercial vessels into the chute or into shallow water shoreline areas.

Project Objective: To correct navigation hazards.

Project Summary: A submerged weir was constructed across the chute entrance. A total of 28,576 cubic yards of riprap were used for the weir, on adjacent banks, wing dams, and rock liners at the entrance to 3 small chutes. The project was completed in 1994 at a cost of \$737,500.

9) Dresbach Island

Background: Dresbach Island is a 120 acre island located in lower Pool 7 near Dresbach, Minnesota. It is part of the Upper Mississippi Wildlife and Fish Refuge. The head end of the island had been eroding for many years, and this was accelerated by the 1993 flooding. The island also has several popular sand beaches, non-active dredge disposal piles, and is part of the extensive river floodplain ecosystem that provides nationally significant habitat for migratory waterfowl and other types of wildlife and fish.

Project Objective: Two separate projects have occurred. Reforestation of the non-active dredge disposal site was undertaken to restore a forested floodplain habitat. Native species were used to create natural conditions for neotropical songbirds, provide species, size and age class diversity within the floodplain forest, maintain turtle nesting habitat, and improve island aesthetics. The erosion control was intended to prevent further loss of the island and to protect the reforestation work.

Project Summary: Reforestation was undertaken in 1995 and 1996. A soil mixture was created using the dredge sand already in place on the site, mixed with 7,000 cubic yards of fine material dredged from the main channel side of the island. Approximately 15 acres were planted with 2,000 Butternut Hickory, 800 Black Oak, 800 Bur Oak, 100 Red Oak, and 100 Black Walnut seedlings. Tree shelters and weed barrier mats were used on approximately 25% of the seedlings. Total cost was \$89,000.

Stabilization of the head of the island was done in 1997 using a variety of techniques. Approximately 600 linear feet of shoreline was protected with 2,300 cubic yards of riprap and 1,100 cubic yards of sand. "Seed islands" or rock mounds were placed off shore to promote sediment accretion. Construction cost was \$131,000.

10) Lake Onalaska Barrier Islands

Background: Lake Onalaska in the lower end of Pool 7, is separated from the main channel of the Mississippi River by a string of Barrier Islands, on the Wisconsin side of the main channel, which are broken with numerous channels and chutes to provide water exchange between the lake and river. This give and take of flowing water has

caused erosion damage to several islands, and the flooding of 1993 accelerated the problem. Three locations in the Lower Pool 7 channel and Lake Onalaska have been identified as having specific problems.

Project Objective: Reduce erosion of island shorelines in Lower Pool 7 and Lake Onalaska.

Project Summary: Barrier Islands - approximately 2,800 cubic yards of rock rip rap stabilized approximately 1,400 linear feet on Islands B and C at River Mile 703 less than 1/2 mile above Dam 7. Off shore rock mounds were created to serve as seed islands or sediment accretion structures. Martin Beach - approximately 100 cubic yards of rock fill closed a 10 foot wide breach in a Barrier Island at River Mile 704.6 directly across from the upper end of Dresbach Island. Broken Gun Island - Approximately 700 cubic yards of rock fill was used to repair the east end of this created island on Lake Onalaska (*see project 11*). All project work was done in 1998 by the Corps of Engineers funded by U.S. Fish and Wildlife Service.

11) Lake Onalaska Habitat Rehabilitation and Enhancement Project (HREP)

Background: Lake Onalaska is nationally recognized as one of the best bluegill and largemouth bass backwater lakes on the Upper Mississippi River and one of the major staging areas of migrating waterfowl. Sedimentation and aquatic plant growth had virtually eliminated water flows through important fishery wintering areas near Rosebud Island, creating both winter and summer dissolved oxygen problems. Islands in Lake Onalaska had also eroded, leaving the lake more susceptible to increased wave action and turbidity.

Project Objective: Construct three islands in the middle of the lake to reduce the effects of wind fetch and provide land predator free nesting areas for waterfowl. Reduction of wind fetch will also improve water quality and conditions for aquatic plant growth. Dredging behind Rosebud Island will provide oxygenated water to the fishery habitat area. Beneficial use of dredge materials not used in the island construction will be used in fill for the USH 53 freeway between Onalaska and Holmen.

Project Summary - The initial project was conducted in 1989 and 1990. Two parallel channels, each about 9,000 feet, were dredged behind Rosebud Island to direct oxygenated water to the fishery area. Approximately 170,000 cubic yards of sand dredged from these channels was used to construct three crescent shaped islands in the middle of Lake Onalaska. These are named - Arrowhead, Broken Gun, and Cormorant. About 380,000 cubic yards of fine sediment was placed on Rosebud Island. About 900,000 cubic yards of sand dredged from the project area was used as fill for USH 53. Total project cost was \$2,064,000. In 1993 the U.S. Army Corps of Engineers did remedial work to correct erosion on the newly constructed islands, at a cost of \$100,000. Additional repair work was done on Broken Gun Island in 1999 (*see project 10 for description*).

12) Red Oak Island

Background: Red Oak Island, a wooded ridge that rose above the pre-1930's Mississippi River floodplain, is located in Lake Onalaska. Red Oak Island was created as part of the 1930 Corps of Engineers navigation project. Erosion at both ends of the island resulted in significant loss of shoreline. This erosion was accelerated during the 1993 floods. Two important features of this island are the high quality upland habitat of Oak and Hickory trees, as well as cultural resources.

Project Objective: Stabilize the shoreline at both ends of the island, thereby limiting further erosion and protecting high quality upland habitat and cultural resources.

Project Summary: Construction of rock wedge and offshore rock mounds located at each end of the island was done in 1995. Approximately 6,000 cubic yards of riprap was used for nearly 900 linear feet of offshore mound. Total project cost was \$259,000.

13) Onalaska Spillway Rehabilitation

Background: This portion of the dike and spillway system of Lock and Dam 7 was in need of a major rehabilitation. This is the dike that creates Lake Onalaska. The spillway is located at the east end of the dike, near Main Street in Onalaska, Wisconsin.

Project Objective: Repair an eroding spillway.

Project Summary: The construction occurred in 1994 and 1995. Concrete culverts were replaced, stone embankments were replaced with a concrete overflow apron, spillway, sheet pile cut-off wall, spur dikes, and rock scour protection. Final construction cost was \$3,314,863.

14) Pool 7 Beach Rehabilitation

Background: One of the recreational features of the Upper Mississippi River is its many "sandbar" beaches on islands and isolated shorelines. These beaches long provided for informal picnic and campsites for boaters. Actually they existed because of frequent replenishment as the Corps of Engineers deposited dredged sand at the most convenient locations to the dredge work sites. When the Great River Environmental Action Team (GREAT) began planning dredge material disposal sites using more stringent environmental criteria, many of the traditional "Beach" areas no longer received sand replenishment, and the boating public began asking, "Where have the beaches gone?"

Project Objective: Prepare beach enhancement plans for Pools 7, 8, 9, and 10. Identify and evaluate beach sites and make recommendations for beach upkeep. This enhancement of the selected beaches could include reshaping, pushing back encroaching vegetation, adding sand where possible, and if in compliance with channel maintenance needs.

Project Summary: Beach enhancement is an ongoing team effort. Several beach areas in Pool 7 have had work done in 1995. The work was done by the Corps of Engineers and paid for by the U.S. Fish and Wildlife Service.

15) Forest Inventory

Background: As part of the Upper Mississippi River 9-Ft. Channel Navigation Project, the Corps of Engineers Natural Resource Section (*located in La Crescent, Minnesota*) is charged with managing approximately 22,500 acres of land held in fee title by the U.S. Army Corps of Engineers, St. Paul District. Pool 7 has 2,200 acres and Pool 8 has 3,850 acres. Detailed vegetation composition data were gathered to provide information necessary to develop and implement forest management prescriptions.

Project Objective: To collect forest resource information through the utilization of field sampling and stand mapping procedures. To be able to subdivide all acres into individual forest stand units based on ecological characteristics. To develop a detailed information database for use in project management planning.

Project Summary: The forest inventory and data processing for all pools began in May of 1989 and was completed in December 1998. Database information is used to develop management unit prescriptions. It has also been used for a variety of wildlife habitat studies, and in conjunction with other data to analyze vegetation changes over time. This information was disseminated to interested persons in the numerous natural resource agencies present in the area. In addition, the data has been posted on the web for access by those using the Internet.

Pool 8 Projects

1) French Island Culverts

Background: French Lake is a 70 acre abandoned channel lake located below the Lock and Dam near Dresbach, MN. At the north end of the lake are several bays, and the south end connects with Smith Slough, French Slough, and the Black River near its confluence with the Mississippi River. Habitat conditions were limited by low water exchange resulting in high summer water temperatures with extremes in daily dissolved oxygen levels, and severe winter oxygen depletion.

Project Objective: To construct a culvert through the earthen dike of L&D 7 to provide additional water flows to improve temperature and dissolved oxygen habitat conditions.

Project Summary: Construction began during the fall of 1994, and was completed in the spring of 1995. A gated culvert was constructed through the earthen dike to convey additional flows into French Lake. The culvert system consists of a 30-inch concrete pipe through the dike, a slide gate in a gate well, and riprapped inlet and outlet channels. Conditions were monitored to determine the effective flow rates needed for both summer and winter seasons, and adjusted accordingly. Project construction costs were approximately \$250,000.

2) East Channel Habitat Rehabilitation and Enhancement Project (HREP)

Background: The channels and bays associated with the East Channel area are located in Pool 8 just below Lock and Dam # 7, near La Crescent, Minnesota. These areas provide high quality overwintering habitat for walleye, and receive heavy walleye use prior to spring spawning. At Interstate 90 Bay, erosion of a peninsula was threatening the fishery resource of upper Pool 8. Erosion at Lower Island 98 and Minnesota Island was resulting in long term loss of island habitat. These islands also serve to maintain the East Channel as a large side channel. This area is included in the Upper Mississippi River National Wildlife and Fish Refuge, which is part of an extensive river floodplain ecosystem that provides nationally significant habitat for migratory waterfowl and other types of wildlife and fish.

Project Objectives: To stabilize the peninsula feature located at the Interstate 90 Bay, as well as the shoreline of Lower Island 98 and Minnesota Island.

Project Summary: Construction began in October 1996 and was completed in June 1997. Approximately 11,000 tons of rock was placed along 500 linear feet of peninsula at the Interstate 90 Bay location, and 7,300 tons of rock was used to stabilize 900 linear feet of shoreline of Lower Island 98 and Minnesota Island. Project cost was \$559,000.

- 3) Northside City Dock Facing
- 4) "Holiday Inn" Closing Structure
- 5) Barron Island Head Riprap
- 6) Riverside Park Quay Wall Dredging
- 7) Isle La Plume - City Dock - Fleeting Site
- 8) Hintgen Island Fleeting Site
- 9) Pool 8 Islands - Phase I
- 10) Pool 8 Islands - Phase II
- 11) Pool 8 Islands - Phase III
- 12) Pool 8 Beach Enhancement

Background: One of the recreational features of the Upper Mississippi River is its many "sandbar" beaches on islands and isolated shorelines. These beaches long provided for informal picnic and campsites for boaters. Actually they existed because of frequent replenishment as the Corps of Engineers deposited dredged sand at the most convenient locations to the dredge work sites. When the Great River Environmental Action Team (GREAT) began planning dredge material disposal sites using more stringent environmental criteria, many of the traditional "Beach" areas no longer received sand replenishment, and the boating public began asking, "Where have the beaches gone?"

Project Objective: Prepare beach enhancement plans for Pools 7, 8, 9, and 10. Identify and evaluate beach sites and make recommendations for beach upkeep. This enhancement of the selected beaches could include reshaping,

pushing back encroaching vegetation, adding sand where possible, and if in compliance with channel maintenance needs.

Project Summary: Beach enhancement is an ongoing team effort. Several beach areas in Pool 8 have had work done in 1995. The work was done by the Corps of Engineers and paid for by the U.S. Fish and Wildlife Service.

13) Pool 8 Drawdown and Dredging

14) Forest Inventory

Background: As part of the Upper Mississippi River 9-Ft. Channel Navigation Project, the Corps of Engineers Natural Resource Section (*located in La Crescent, Minnesota*) is charged with managing approximately 22,500 acres of land held in fee title by the U.S. Army Corps of Engineers, St. Paul District. Pool 7 has 2,200 acres and Pool 8 has 3,850 acres. Detailed vegetation composition data were gathered to provide information necessary to develop and implement forest management prescriptions.

Project Objective: To collect forest resource information through the utilization of field sampling and stand mapping procedures. To be able to subdivide all acres into individual forest stand units based on ecological characteristics. To develop a detailed information database for use in project management planning.

Project Summary: The forest inventory and data processing for all pools began in May of 1989 and was completed in December 1998. Database information is used to develop management unit prescriptions. It has also been used for a variety of wildlife habitat studies, and in conjunction with other data to analyze vegetation changes over time. This information was disseminated to interested persons in the numerous natural resource agencies present in the area. In addition, the data has been posted on the web for access by those using the Internet.

15) Salvage Timber Sales

Background: Two separate salvage sales have occurred to date (12/3/99). The combination of a flood and high wind event in the summer of 1993, resulted in an area of blow down in Pool 8 near Goose Island. A 38-acre Salvage Sale Area was established for the removal and utilization of the damaged timber. A straight-line windstorm in the summer of 1998 damaged many areas in Pools 7 and 8. Following damage surveys of all areas, five were identified as having salvageable timber. Three units totaling 20 acres were adjacent to the WKTY radio tower site just south of La Crosse, Wisconsin, and two units totaling 16 acres were located within Goose Island Park. Once a unit has been established, an estimate of the volume of available timber is made, and a bid package is advertised to the public. A contract is awarded to the highest bidder.

Project Objective: To remove the storm-damaged trees and allow for the utilization of the wood resource. Removal of the downed trees will aid in natural regeneration by removing much of the debris and improving ground surface conditions for seed germination.

Project Summary: The first salvage sale occurred in February 1995, and removed a total of 37,500 board feet. The second sale started with the three units located at the WKTY radio tower site beginning in July of 1999. Harvest in these units was completed by mid November with a total of 138,000 board feet removed. Work at the Goose Island sites is continuing at this time, and was expected to be completed by the end of December 1999.

16) Long Term Resource Monitoring Program (LTRMP) Water Quality Studies - Pool 8

Background: The Wisconsin DNR has a field station in Onalaska that is part of the federally funded Environmental Management Program (EMP) for the Upper Mississippi River System. This program has a Long Term Resource Monitoring (LTRMP) component that is being implemented by the U.S. Geological Survey's Upper Mississippi Environmental Science Center at La Crosse and Onalaska. Wisconsin DNR field station staff conduct water quality, fishery, vegetation, and invertebrate monitoring primarily within Pool 8 on the Mississippi River. This field station is one of 6 LTRMP field stations located on the Upper Mississippi and Illinois Rivers. The Minnesota DNR operates a similar station in Pool 4, which includes Lake Pepin. Monitoring data is collected using consistent methods and stored in a centralized database to facilitate spatial and temporal data analysis. The

data provides an important information base to assess environmental factors influencing the Upper Mississippi River System.

Project Objective: Monitor water quality at both fixed site and stratified random sample using both field and laboratory analysis. Fixed site sampling is biweekly throughout the year and random sampling is done quarterly at 150 randomly selected sites from 5 sampling strata. Monitor submerged aquatic vegetation - This part of the program has been fully established since 1993 and eight backwaters within Pool 8 are monitored twice each growing season. Approximately 2,400 samplings are conducted each year.

Project Summary: The water quality sampling at the fixed sites shows a seasonal variation in dissolved oxygen but it generally is greater than 5 mg/L through the year. The percent oxygen exhibits less distinct seasonal variability and ranges between 80-130 percent. The average suspended solids concentration is less than 10mg/L in winter and peaks between 30-60 mg/L in spring and early summer due to increased runoff and precipitation. Nitrogen loading between 1991 and 1997 was 1-6 mg/L, which continues to exhibit a decline from earlier levels. Suspended solids concentrations have also declined slightly over the 1991-97 period. The stratified sampling site data also supports the suspended solid concentration decline. The submerged aquatic vegetation (SAV) sampling verified there was a minor decline from 1981 (*before the LTRMP began*) to about 1991. Since 1991 the 8 backwater sampling areas have essentially shown a continuing increase in SAV, and in 1999 all 8 sample areas were at or near their highest percent frequency of occurrence. The slight decline in suspended solids concentrations noted since 1991 may be allowing more sunlight to penetrate the water. This same trend has been observed in other pools on the river. Rooted floating - leaf vegetation decreased from 1989, but showed a slight recovery in 1998. Emergent vegetation has shown no definite trend.