

Lower Platte River Recreation Master Plan

Section 22 Planning Assistance to States

Prepared for:

	
The Nebraska Game and Parks Commission	The Lower Platte River Corridor Alliance

Final
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**US Army Corps
of Engineers®**

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LIST OF ACRONYMS

ADF	average daily flow
amsl	above mean sea level
ATV	all-terrain vehicle
CART	Columbus Area Recreational Trails
cfs	cubic feet per second
D-L-D	Detroit-Lincoln-Denver
ESA	Environmental Suitability Assessment
GIS	Geographic Information Systems
LSA	Land Suitability Assessment
LPRCA	Lower Platte River Corridor Alliance
LPSNRD	Lower Platte South Natural Resources District
LWCF	Land and Water Conservation Fund
NDEQ	Nebraska Department of Environmental Quality
NDNR	Nebraska Department of Natural Resources
NGPC	Nebraska Game and Parks Commission
NPS	National Park Service
NRD	Natural Resources District
NSHS	Nebraska State Historical Society
OHV	off-highway motorized vehicle
O-L-D	Omaha-Lincoln-Denver
PAS	Planning Assistance to States
P-MRNRD	Papio Missouri River Natural Resources District
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SRA	State Recreation Area
WMA	Wildlife Management Area
WRDA	Water Resources Development Act
USGS	United States Geological Survey

1.0 INTRODUCTION

1.1 Purpose of this Plan

Lower Platte River Corridor Alliance (LPRCA) officials have identified the need and expressed their support for the LPRCA and the U.S. Army Corps of Engineers, Omaha District (Corps), to jointly conduct a Section 22 Planning Assistance to States (PAS) study to assess recreation use and access on the lower Platte River. The Nebraska Game and Parks Commission (NGPC), a member of the LPRCA, worked closely with the Corps and the LPRCA throughout the study effort. The LPRCA and NGPC are the local project sponsors (sponsor) for this study.

The lower Platte River Corridor (the Corridor) extends from Columbus, Nebraska to its confluence with the Missouri River just above Plattsmouth, Nebraska. The Corridor includes the bluffs and floodplains that surround the lower Platte River, spanning from 3 to 5 miles wide. The Corridor is a source of nature-based recreation for local residents, as well as visitors from outside the area.

The lower Platte River is nationally, regionally, and locally significant for a variety of reasons. The state's two largest metropolitan areas receive all or some of their drinking water from the alluvial aquifer beneath the river, the river is a source of valuable mineral production, and it is home to a variety of wildlife species, including several state and federally threatened and endangered species. From a recreation standpoint, the river is located in close proximity to more than 50 percent of the state's population. Eastern Nebraska, which contains approximately 50 percent of Nebraska's population, is best situated to take advantage of the resources in this area and is therefore the primary target audience for planning purposes.

The purpose of this recreation plan is to assess the existing conditions within the Corridor, identify recreation issues and need for improvements, and to make recommendations for future recreation improvements. The existing conditions evaluated as part of this plan are river conditions, recreation resources including river access, and recreational use including a survey of recreationists. Recommendations provided in this plan are at a conceptual level and intended to guide future recreation planning and development decisions along the Corridor.

1.2 Study Area

The Platte River is a major river within the state of Nebraska. It is formed by the confluence of the North Platte and South Platte Rivers in western Nebraska, and runs approximately 310 miles west to east across central Nebraska before joining the Missouri River. The Platte River is a significant tributary in the watershed of the Missouri River, as it drains a large portion of the central Great Plains in Nebraska and eastern Colorado and Wyoming. As described above, the lower Platte River is typically defined as the portion of the Platte River from Columbus, NE to the mouth of the river near Plattsmouth, NE, a distance of approximately 110 miles.

The study area is the lower Platte River Corridor from Columbus, NE to the confluence of the Platte River and Missouri River near Plattsmouth, NE. The Corridor is generally defined as the lower Platte River, the bluffs and the adjoining public and private lands located within the floodplain of the Lower Platte River. In general the Corridor spans a three to five-mile wide area encompassing the river. Understanding recreation sites, access sites, parks, habitat, trails, and the communities situated along the corridor are important for assessing the existing and future recreation of this plan.

The area of analysis for the needs assessment, demographic profile, and any socioeconomic evaluations is expanded beyond the river corridor, and encompasses counties bordering the river, including Platte, Butler, Colfax, Dodge, Saunders, Douglas, Sarpy, and Cass counties. Lancaster County is also included in the area of analysis, as it is closely situated to the lower Platte River and contains a large population base. The Lower Platte River Corridor and Area of Analysis Map is shown in Figure 1.

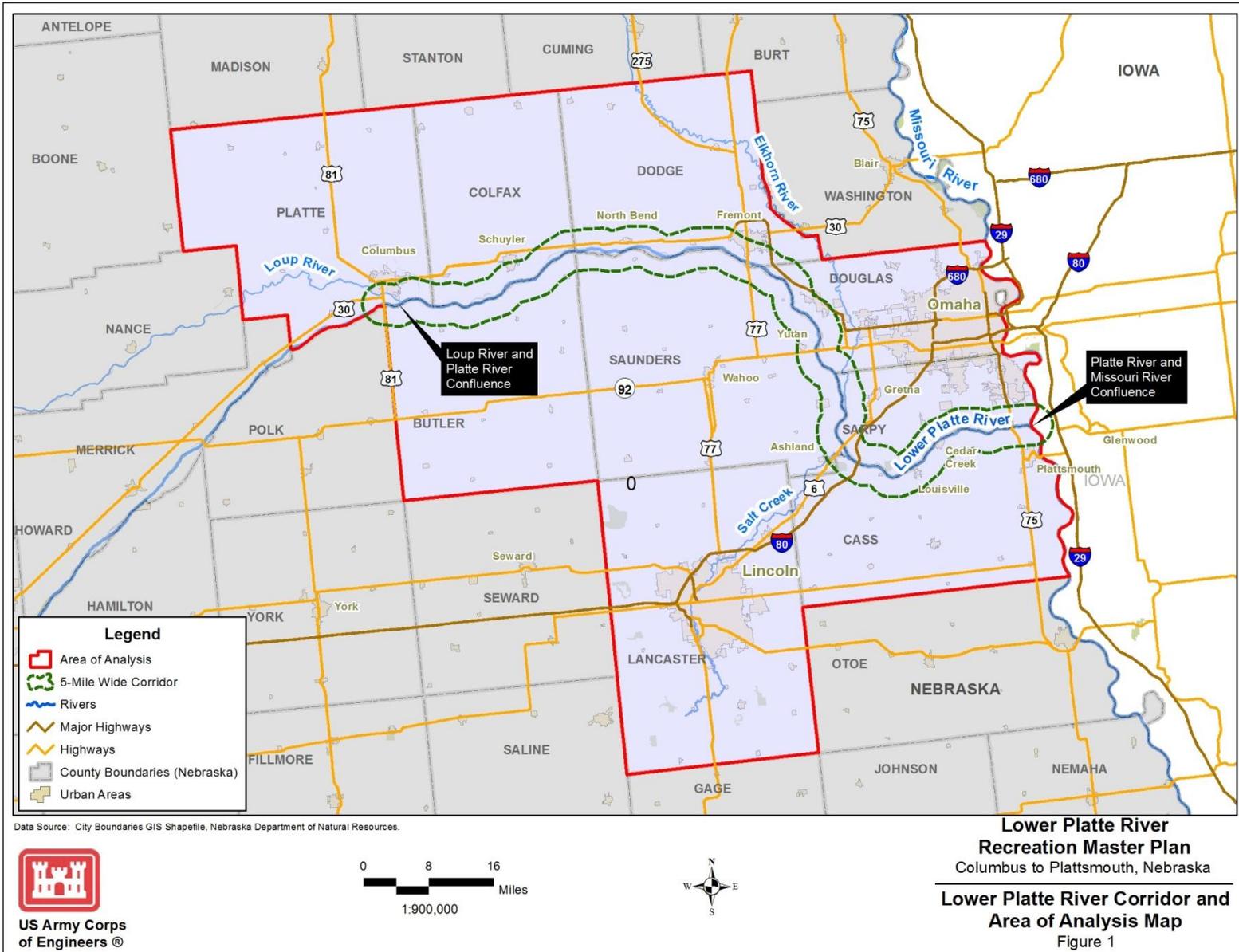


Figure 1. Lower Platte River Corridor and Area of Analysis Map

1.3 Plan Objectives

The lower Platte River provides multiple opportunities for recreation. These opportunities have historically been provided by primarily public agencies at the local and state level, but in recent years there has been a growth of private sector recreational businesses and events along the lower Platte River. Understanding the opportunities available, the needs of current and future recreationists, and the role the river conditions and available recreation features play in the availability of particular activities is central to ensuring proper management and planning of the river's resources. Communicating to the public about available resources and river conditions allows recreationists to plan trips and make the best use of available resources. Providing information to support management, planning, and public communication and education about the lower Platte River are important outputs of this study.

The following objectives are the focus of this plan:

- Provide a basic understanding of the environmental and socioeconomic conditions of the lower Platte River Corridor.
- Provide an inventory of existing recreation facilities along the lower Platte River Corridor.
- Present findings from a recreation users survey to provide a community-wide perspective.
- Evaluate availability of river access points on the lower Platte River.
- Assess the potential for developing a water trail.
- Improve outreach and communication with the public.

1.4 Study Authorization

Authority for the PAS program is Section 22 of the Water Resources Development Act (WRDA) of 1974 (PL 93-251) as amended in Section 605 of PL 96-596 and Section 221 of WRDA 1996 (PL 104-303). Section 22 provides authority for the Corps to assist the states, local governments, and other non-federal entities in the preparation of comprehensive plans for the development, and conservation of water and related land resources. Section 22 is commonly used as a study authority to assist local communities with a variety of other water resource issues, including the development of recreation plans.

1.5 Prior Studies and Reports

Natural Resource Amenities and Nebraska's Economy: Current Connections, Challenges, and Possibilities. August, 2006. Prepared for the Nebraska Game and Parks Commission by ECONorthwest. This report investigates the current state of, and potential for growth of resource-related amenities within the state of Nebraska. The report suggests that Nebraska could increase its economic growth by providing more nature-based recreational opportunities. Other communities in the United States have utilized land and water resources to generate jobs and income in the recreation sector of the economy. Examples of Nebraska's natural resource amenities cited in the report include things distinctive to the state, such as rivers and reservoirs, agricultural as well as undeveloped landscapes, opportunities for fishing, hunting, and wildlife-watching, trails, state parks, and areas with aesthetically pleasing topography and scenery. These areas are enjoyed by Nebraskans, and therefore should be considered for their potential as more significant recreational resources for the state.

Nebraska Game and Parks Commission. 2010. Statewide Comprehensive Outdoor Recreation Plan (SCORP): A Guide to an Active Nebraska, 2011-2015.

The SCORP is the official outdoor recreation plan for Nebraska covering 2011 to 2015. It is Nebraska's guide for outdoor recreation development, compatible with the state's natural resources. The plan serves as a tool for local communities to assess demand, plan for and fund facilities, and conduct public

involvement. It is used by the state of Nebraska as a tool for prioritizing projects for the Land and Water Conservation Fund (LWCF) and meets federal requirements for participation in that program. Public involvement was a significant component of the plan and the primary method used was surveys. The NGPC states in the SCORP that it is important for state agencies to collaborate with divisions within the NGPC that have separate plans, the state's Health and Human Services Department, the State Historical Preservation Plan, and a plan for tourism within the state from the state's Travel and Tourism Office. Agencies should take advantage of opportunities to collaborate where common goals exist, which leads to more efficient use of tax dollars.

A Network of Discovery: A Comprehensive Trails Plan for the State of Nebraska. May, 2004. Prepared for the Nebraska Game and Parks Commission by RDG Planning and Design.

This plan discusses existing statewide recreation trails and a vision for future trail development within the state. A common set of terms used to describe trails is offered and used in the Lower Platte River Recreation Master Plan for consistency. Trails of recreational and historical significance within the lower Platte River are discussed, including multiple use trails, national historical trails, and canoe trails.

Environmental Suitability Assessment. 2013. Prepared for the Lower Platte River Corridor Alliance by HDR. The Lower Platte River Corridor Environmental Sustainability Assessment (ESA) was a multi-phase effort that developed a planning framework for responsible, consistent, and sustainable development in the lower Platte River Corridor. The LPRCA, with their lead consultant HDR, met with the many stakeholders in the Corridor to discuss land use issues and concerns as well as information needs. From those meetings, the next steps were to assemble environmental and natural resource-related information to meet those needs and to use that assembled information to develop an interactive Geographic Information System (GIS) viewer and report to assist decision makers. A second major piece of the ESA was the development of a Land Suitability Assessment (LSA). The LSA added "metrics" to the accumulated natural resource and planning information to better assist stakeholders in understanding the effect land use changes can have on water quality, wildlife habitat/land conservation, agriculture and recreation in specific areas of the Corridor. Importantly, the ESA has become a planning framework for the LPRCA as well.

Lower Platte River Public Opinion Survey. 2012. Lower Platte River Corridor Alliance.

The Lower Platte River Corridor Alliance completed a public opinion survey in May 2012. The survey targeted residents of cities, towns and housing areas within the Lower Platte River Corridor. Nearly 80 percent of respondents live between one and three miles from the river and the majority of respondents lived in the Columbus to Fremont reach of the Lower Platte River. The survey focused on a variety of topics including flood control, endangered species, water quality, land use, and recreation. The public survey was administered over the phone and followed with three focus group meetings with residents and public officials. Approximately 64 percent of the respondents indicated that recreation was very important or somewhat important to them. Additionally, approximately 54 percent of respondents indicated that they would be very likely or somewhat likely to use public access to the river if more were to be created.

2.0 GENERAL STUDY AREA DESCRIPTION

The following sections provide an overview of the physical, environmental, and human aspects that shape the character of the lower Platte River. Topics covered include topographic characteristics, land use changes, watershed characteristics, and socioeconomic conditions. These topics influence the type of recreation that may currently exist in the area, and provide information which should be taken into consideration as part of future recreation planning efforts.

2.1 Topography and Land Use Description

The lower Platte River is approximately 110 miles in river length beginning at the confluence with the Loup River and ending at the confluence with the Missouri River (from Columbus, NE to Plattsmouth, NE). Major tributaries include the Loup River, Shell Creek, Elkhorn River, and Salt Creek. According to the U.S. Geological Survey (USGS) 250K and 24K quadrangle topographic mapping, the elevation at the confluence with the Loup River is approximately 1,425 feet above mean sea level (amsl) and the elevation at the confluence with the Missouri River is approximately 950 feet amsl. The slope of the lower Platte River is approximately 0.091 percent, which is well suited for water-borne recreation activities such as air-boating, canoeing, and kayaking.

The Platte River drains approximately 86,000 square miles from its mouth, of which approximately 26,500 square miles of drainage area lies downstream from its confluence with the Loup River. More than 90 percent of this area (approximately 24,200 square miles) can be accounted for by the collective drainage areas of the Loup River, Shell Creek, Elkhorn River, and Salt Creek. The remaining drainage area of the lower Platte River valley is the bottomlands of the lower Platte River and small tributaries draining the loess plains and glacial tills of eastern Nebraska. From the confluence with the Loup River to the confluence with the Elkhorn River, the channel width ranges from 650 to 4,540 feet and the valley width averages approximately seven miles wide. Downstream from the mouth of the Elkhorn River, the lower Platte River channel width ranges from 600 to 2,780 feet wide and the valley width narrows to an average of three miles wide (USGS, 2014).

As part of a separate effort, a land use assessment was conducted in 2008 to identify general land use changes along the Corridor of the lower Platte River. This classification included agriculture, water, forest, rangeland, urban, and barren (sandbars and other non-vegetated areas) land use classifications. Aerial photography was evaluated during these years – 1938, 1950, 1970, 1993, and 2003 – which allowed for basic trends and land uses to be determined. Figure 2 shows the land use classification breakouts for each time step.

Even though the vast majority of land in eastern Nebraska is privately-owned, such an assessment can be applied to recreation planning on a broad scale in the lower Platte River corridor. The areal coverage of water across each time step is relatively constant, which would indicate that a relatively stable recreational resource exists for a growing population. Increases in forested lands could be investigated for their potential to provide opportunity for recreational development as well, as these areas tend to provide good settings for camping, bird-watching, nature hikes, and other outdoor activities. The land use assessment and historical changes over the last 75 years indicate that the region's economy is heavily dependent on the agricultural sector, which is characteristic for the state of Nebraska. The increases in urban area are attributed to expansion of urban areas in the vicinity of the Corridor, but this has been most evident in the region's more populous eastern half.

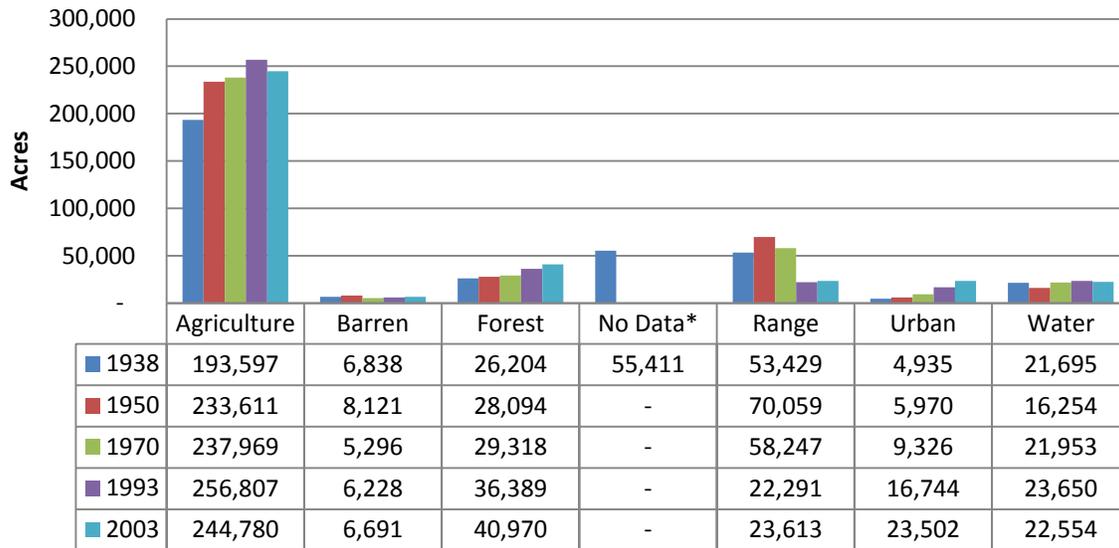


Figure 2. Lower Platte River Corridor Land Use Changes (acres)

Source: Lower Platte River Cumulative Impact Study, Phase II. September, 2008. U.S. Army Corps of Engineers.

2.2 Threatened and Endangered Species

The lower Platte River provides habitat for the federally endangered pallid sturgeon (*Scaphirhynchus albus*) and interior least tern (*Sternula antillarum*) and the state threatened piping plover (*Charadrius melodus*), as well as a variety of other fish and wildlife species. Emergent sandbar habitat within the lower Platte River is important for these three federal and state listed threatened and endangered species. Least terns and piping plovers use sandbar habitat in the river for nesting and the river itself for foraging. The availability of nesting habitat is dependent on a variety of riverine conditions, including volume and depth of water flowing in the river, seasonal and daily fluctuations in flow, and the ability of various segments of the river to hydrologically allow for sandbar development. Pallid sturgeon, which also utilize the lower Platte River, have been shown to most frequently be located in the deepest and fastest moving currents of the river but typically within 50 to 100 meters of shallow and exposed sandbars.

Much of the state's population is located in close proximity to the lower Platte River. Because the river is subject to a large number of human impacts, there is a concern regarding overall, or cumulative, impacts to the environment. Any recreation activities should consider impacts to threatened and endangered species and avoid and minimize potentially adverse impacts. In many cases recreation-based development can be managed as an activity that occurs complimentary with environmental conservation and protection.

2.3 Lower Platte River Basin Flows

River flow is an important environmental condition for recreation in the Corridor that affects various types of recreation activities, timing of those activities, and overall quality of recreation experience. Flows are important to understand for anyone who wishes to float, kayak, or canoe the river. Four primary basins drain into the lower Platte River, including the middle Platte River, Loup River basin, Elkhorn River, and Salt Creek basins. Basin maps are provided in Appendix A. Flow from the river's four contributing basins and the Loup Power District Canal have significant and in some respects very

predictable effects on river stage and discharge. Currently this information is not readily available to the public in a format that may be used by recreationists to make informed decisions when planning water-related activities.

Descriptions of the four primary contributing basins are below.

Middle Platte River Basin

The middle Platte River basin encompasses approximately 5,000 square miles within central Nebraska, extending from the confluence of the North and South Platte Rivers in Lincoln County on the western end to the confluence with the Loup Power District Canal return on the eastern end. Stream flow volume in the middle Platte River is heavily controlled by water management practices including the state's largest reservoir, Lake McConaughy, which lies in the North Platte watershed. Demands for water and a lack of precipitation can result in some reaches of the Platte River going dry during the summer (Nebraska Department of Environmental Quality [NDEQ], 2003).

Loup River Basin

The Loup River basin encompasses approximately 15,200 square miles of central Nebraska, accounting for nearly one-fifth of the state's total land area. The Loup River basin originates in Sheridan County and flows approximately 260 miles to Platte County and the confluence with the Platte River (Nebraska Department of Natural Resources [NDNR], 1975, as cited in NDEQ, 2005). The Loup River is comprised of three main branches, the North, Middle, and South Loup Rivers, which all originate in north-central Nebraska and flow generally east/southeast. The North and Middle Loup Rivers flow through the Sandhills region and are primarily fed by relatively continuously flowing groundwater springs from the Ogallala Aquifer. As a result of this relatively continuous flow the lower Platte River enjoys a stable water supply from the Loup River basin. For this reason, unlike the middle Platte River, the lower Platte River will not run completely dry except under an extremely rare event.

Upstream of Columbus there is a diversion which directs water from the Loup River through the 35-mile long Loup Power District Canal. The Columbus Powerhouse is generally operated as a daily hydrocycling plant. This involves ponding some of the canal inflow in the regulating reservoirs (Lake North and Lake Babcock) and then drawing the level of the reservoirs down, generally about 2 to 3 feet, during certain times of the day from generating more power during peak demand. In the off-peak hours, when there is less electrical demand, the turbine generating units are turned down or shut off and the regulating reservoirs are allowed to refill for hydrocycling the following day.

The interconnected regulating reservoirs, Lake Babcock and Lake North, accumulate water and build head during a portion of each day. Accumulated water is then released through the Columbus Powerhouse to produce energy during high-demand periods of the day. Flow released from the Columbus Powerhouse is returned to the Platte River approximately two miles downstream of the confluence of the Loup and Platte Rivers. Except during brief ramp-up and ramp-down periods, operating discharge from the Columbus Powerhouse ranges from a minimum of about 1,000 cubic feet per second (cfs) with one turbine operating to a high of about 4,800 cfs with all three turbines operating at high efficiency settings. Canal discharge to the Platte River ranges from less than 100 cfs to over 6,300 cfs (as recorded at the USGS 8th Street gage). The cycle of flow released from Lake Babcock and Lake North typically occur once every 24 hours, with a discharge duration lasting anywhere from 12 to 20 hours and an accumulation cycle lasting anywhere from 4 to 12 hours, depending upon inflows into the canal system. Downstream of the canal on the Platte River this creates a daily cycle of peaks and troughs in measured hydrographs.

Elkhorn River Watershed

The Elkhorn River watershed is approximately 7,000 square miles. The Elkhorn River originates near Basset, Nebraska and flows in a southeasterly direction until its confluence with the Platte River near Gretna. The North Fork of the Elkhorn River originates near Wausa, Nebraska and flows south to its confluence with the Elkhorn River just south of Norfolk, Nebraska. The South Fork of the Elkhorn River originates in the southwest part of Holt County and flows eastward to its confluence with the Elkhorn River near U.S. Highway 20 between O’Neill and Neligh, Nebraska. Other tributaries to the Elkhorn River include Logan and Maple Creeks.

Salt Creek Watershed

The Salt Creek watershed, located in southeastern Nebraska, drains approximately 1,627 square miles. The Salt Creek has its source in the southwest corner of Lancaster County, 20 miles southwest of Lincoln. Salt Creek’s two uppermost branches, Olive Branch and Hickman Branch, join near Roca to form the main stream. South of Lincoln, Salt Creek is fed by several freshwater streams, but tributaries from the west and north carry saline waters. About 13 miles northeast of Lincoln, below the mouth of Rock Creek (a mildly saline tributary), more freshwater streams flow into Salt Creek before its confluence with the Platte River east of Ashland. Salt Creek is an anomaly among Nebraska streams in that it flows principally to the northeast.

A common trend on the lower Platte River is that higher flows are prevalent in the spring (March through May) as the result of spring runoff. The summer months (June through August) generally consist of lower flows due to irrigation and upstream management practices. The fall (September through November) typically show higher flows than summer, yet slightly lower than spring. This is primarily attributed to the Loup and Platte River systems responding to the end of the irrigation season. Based on USGS gage data (2014), contributing flows from the four primary basins, including the Loup River District Canal, are shown in Table 1.

Table 1. Lower Platte River Contributing Flows by Basin

Basin	Average Daily Flow (ADF) (cfs)	Period of Record Used to Calculate ADF	Gage Location Used to Calculate ADF
Middle Platte River	1,796	1942-2013	Duncan
Loup River	828	1944-2013	Genoa
Loup Power District Canal	1,633	1938-2013	Genoa
Elkhorn River	893	1924-2013	Waterloo
Salt Creek	385	1953-2013	Greenwood
Total ADF from Basins	5,535		

2.4 Socioeconomic Conditions

Socioeconomic characteristics are described in this section of the plan to provide information relevant to understanding the human trends that influence demand for and use of recreation resources in the lower Platte River Corridor. Nine counties are the area of analysis for socioeconomic conditions, eight of which border the Platte River (Platte, Butler, Cass, Colfax, Dodge, Saunders, Douglas, and Sarpy). The ninth county (Lancaster County) does not border the river but includes the urban center of Lincoln, NE which influences recreation use on the river. Theses nine counties contain only 5.3 percent of Nebraska’s total land area but had a total population of 1,095,216 residents or 60 percent of the Nebraska’s total state population in 2010. A large proportion of these residents live in the urban centers of Omaha or Lincoln. Omaha’s population was 408,958 in 2010 and grew to 434,353 residents in 2013, while Lincoln’s population was 258,379 in 2010 and 268,738 in 2013.

Figure 3 provides an overview of the population of the state of Nebraska and the population of the nine counties. Overall, the average annual growth rate for these nine counties from 1960 to 2010 was 1.03 percent, while the growth rate for the state was 0.5 percent. The urban population, or residents living in a city or town rather than in a rural setting, accounts for a larger proportion of the total population. In Nebraska in 1960 approximately 54 percent of state residents lived in an urban setting. In 2010, 73 percent of residents lived in an urban setting, within the nine county area of analysis this had grown to 90 percent in 2010.

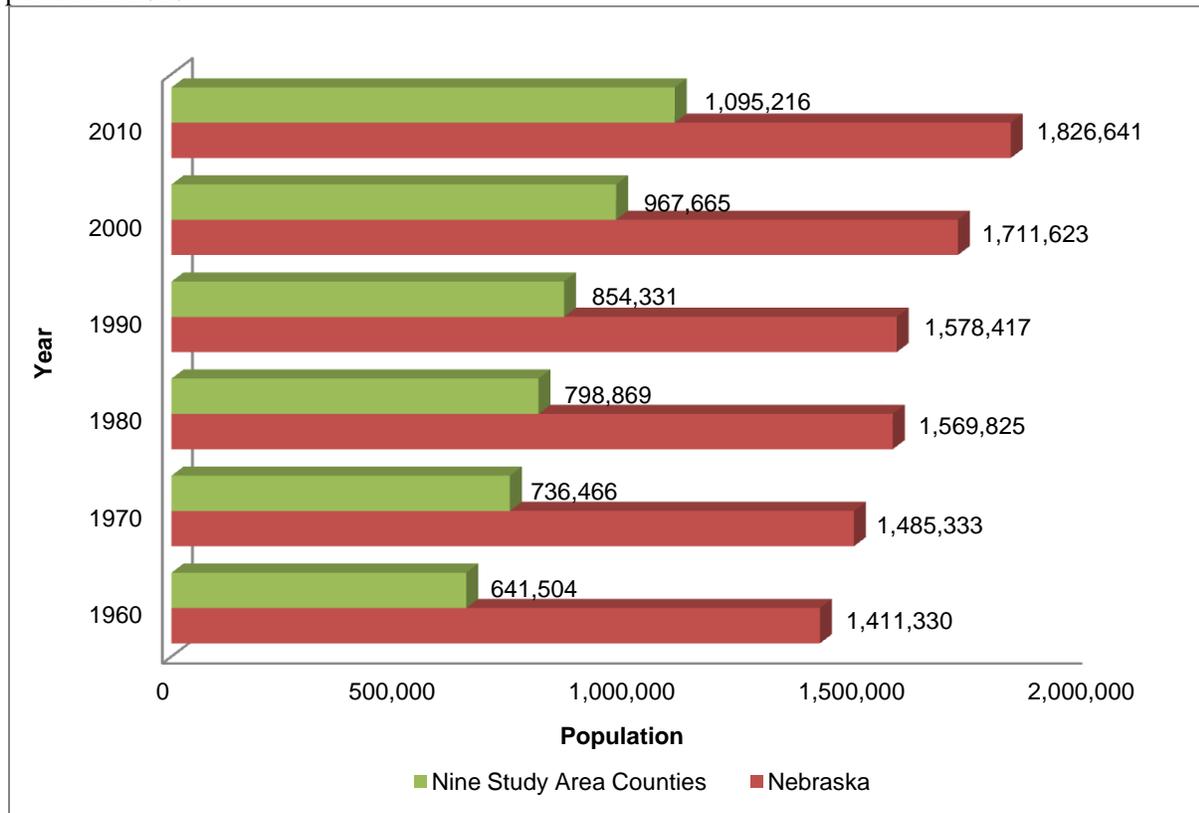


Figure 3. Population Growth of Eight Counties Bordering the Lower Platte River

Source: U.S. Census Bureau/American Factfinder, Decennial Census.

Figure 4 shows total population by county from 1960 through 2010 in 10-year increments and Table 2 shows the population of communities in the vicinity of the Corridor and major metropolitan areas in the area of analysis. In general, counties with larger urban centers have experienced the highest growth rates, while more rural counties, have experienced a slower rate of population growth. The urban center of Omaha is located in Douglas County with spill over into Sarpy County. Douglas County grew by 0.82 percent annually over the 50 year period while Sarpy grew by 3.3 percent annually. As mentioned above in 2010, Omaha’s population was 408,958 thousand or approximately 79 percent of Douglas County’s total population of 517,110 people. Lincoln is located in Lancaster County, which grew at 1.22 percent over the same period. Lincoln’s population comprised 91 percent of Lancaster’s total population 285,407 people in 2010.

Nebraska as a whole grew by 0.52 percent over the 50-year period of 1960 to 2010. Cass and Platte Counties are within commuting distance of both Omaha and Lincoln, and both grew slightly faster than the state average, at 0.70 and 0.59 percent respectively. In Cass County, the rural communities of Louisville and Plattsmouth are both located in the vicinity of the Corridor. Louisville had a population of

1,106 in 2010 and Plattsmouth had a population of 6,502. Combined these two communities comprised of 30 percent of Cass County’s total population of 25,241 in 2010. Within Platte County, the community of Columbus is located within the Platte River Corridor. According to the U.S. Census, Columbus had a population of 22,111 in 2010 or approximately 69 percent of Platte County’s total population. The rural counties of Colfax and Dodge experienced much lower growth rates. Colfax County grew by 0.18 percent and Dodge County grew by 0.24 percent on an average annual basis. The community of Schulyer is located in Colfax County and within the Corridor. In 2010, Schulyer had a population of 6,211, approximately 59 percent of Colfax County’s total population. Fremont and North Bend are small communities located within Dodge County and along the Platte River Corridor. Fremont had a population of 26,397 in 2010 and North Bend had a population of 1,177; combined these communities account for 76 percent of Dodge County’s total population. Butler County experienced a negative rate of growth over the 50-year period, declining by 0.41 percent on an average annual basis. There are no communities in Butler County within the Corridor.

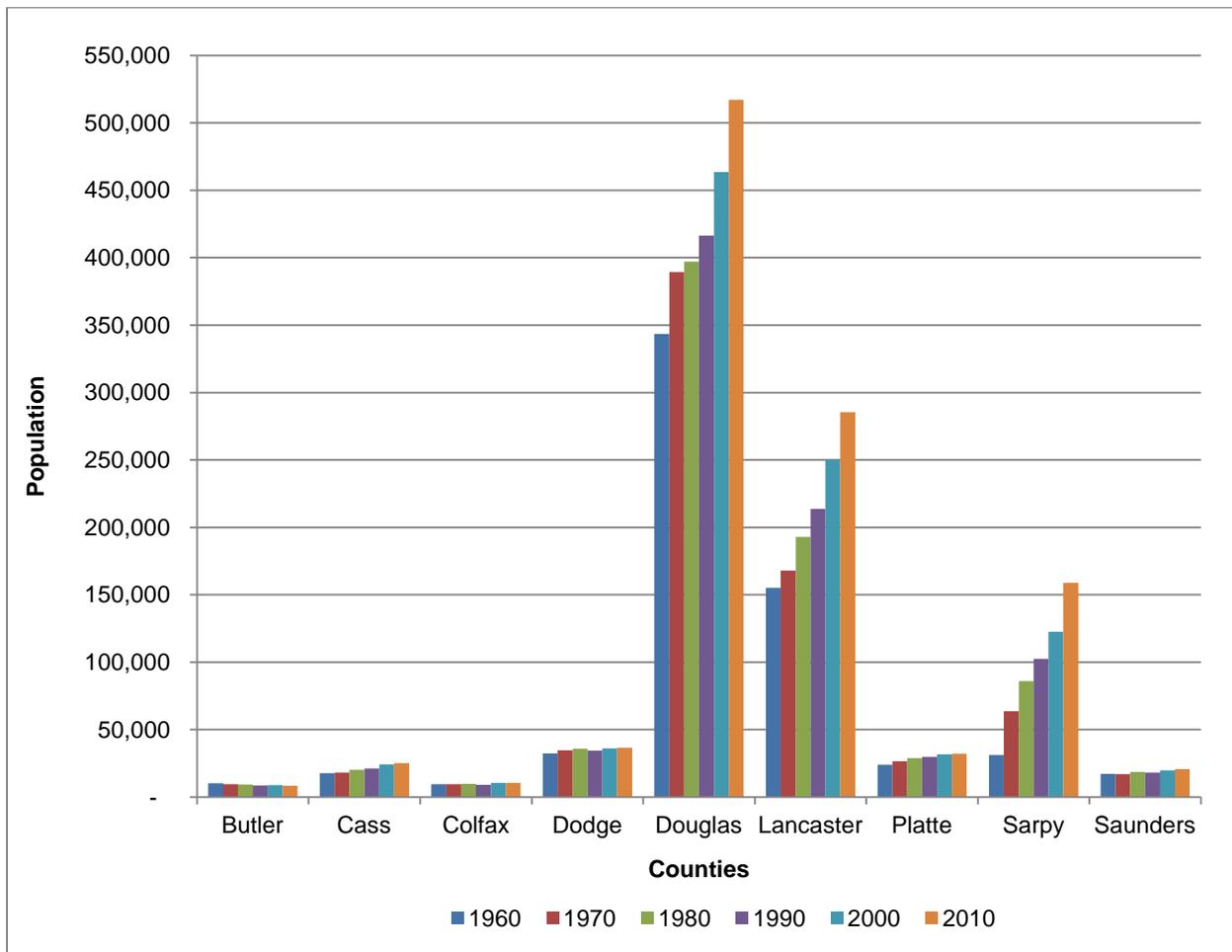


Figure 4. Population by County, 1960 to 2010

Source: U.S. Census Bureau/American Factfinder, Decennial Census.

Table 2. Population by Municipality, 2010

Municipality	2010 Census
Ashland	2,453
Bellevue	50,137
Cedar Creek	390
Columbus	22,111
Fremont	26,397
Gretna	4,441
Lincoln	258,379
Louisville	1,106
North Bend	1,177
Omaha	408,958
Papillion and LaVista (combined)	34,652
Plattsmouth	6,502
Schuyler	6,211
South Bend	99
Valley	1,875
Yutan	1,174

Source: 2010 Census, American Factfinder. SF-1 dataset.
<http://factfinder.census.gov>

Figure 5 shows the relative sizes the communities from Table 2 in terms of their populations. Communities in close proximity to the river are positioned well to utilize it as a recreational resource. Those with larger populations are sources of future outreach for recreation marketing or educational purposes. The presence of existing recreational resources in relation to these communities is described in the inventory of existing recreation facilities section of this plan.

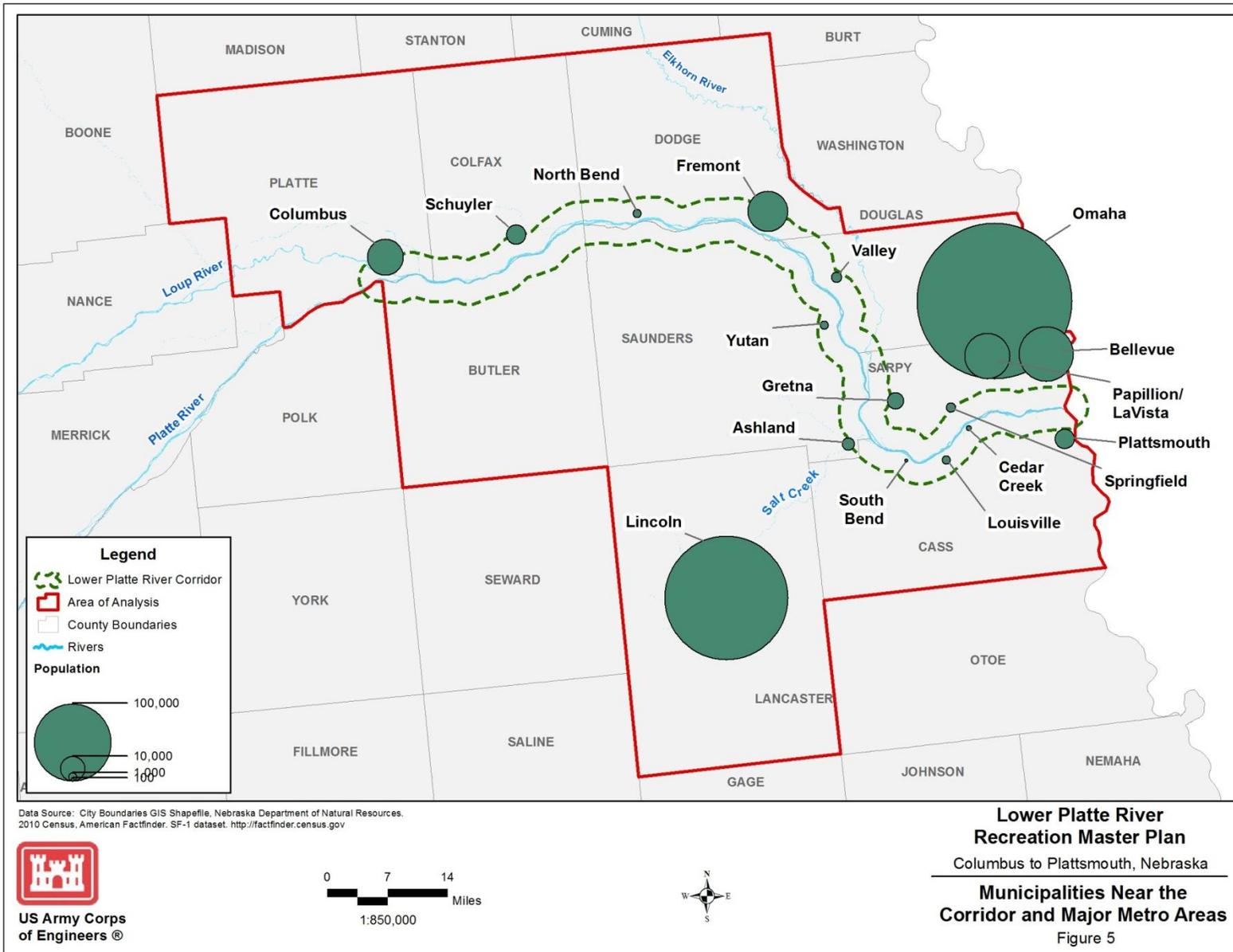


Figure 5. Municipalities near the Corridor and Major Metro Areas Map

Along with urban growth, another trend that is shaping socioeconomic characteristics in the state of Nebraska is the aging of the population. As shown in Figure 6, the age of the population in the state and the eight counties that border the lower Platte River has been increasing over the past several decades. Butler County, the only county to experience a negative rate of population decline from 1960 to 2010, has the population with the highest median age (when compared to the other counties and Nebraska). As described in the Nebraska SCORP, people of different ages have different needs for outdoor recreation and different perceptions of what they consider fun to do outdoors (2010). The aging baby boomer generation is one of the most significant trends affecting outdoor recreation regarding demographics in Nebraska. In general, people are retiring earlier and have free time to pursue recreational interests. As described in the SCORP, as the baby boomers reach their 70s and 80s, less active recreation activities such as walking, birding and gardening will become increasingly important recreational pursuits.

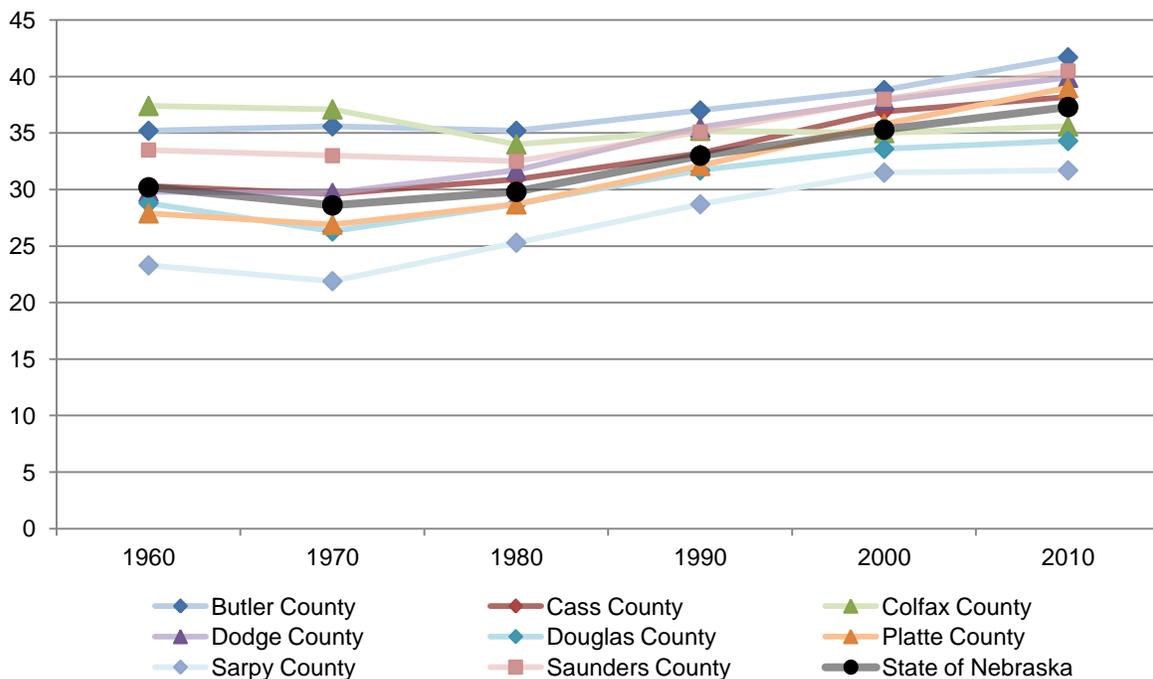


Figure 6. Median Age by County and State, 1960 through 2010

Source: U.S. Census Bureau/American Factfinder, Decennial Census.

Table 3 shows the median per capita income for the nine counties and the state from 1970 through 2010 and Table 4 shows the median family income in 2012 for the same area. Douglas County, which includes the Omaha urban area, has consistently had the highest median per capita income over the 40-year period. Table 3 shows that urban counties, such as Sarpy, Douglas and Saunders tend to have higher median family incomes indicating that urban households or at least urban families tend to have higher incomes and/or multiple wage earners.

Table 3. Median Per Capita Income for Counties and State, 1970 through 2010

	1970	1980	1990	2000	2010
Butler County	\$3,320	\$6,962	\$16,119	\$24,456	\$39,816
Cass County	\$3,654	\$9,156	\$16,481	\$28,662	\$38,645
Colfax County	\$3,365	\$7,452	\$17,452	\$25,370	\$35,025
Dodge County	\$3,778	\$9,492	\$15,860	\$25,876	\$35,771
Douglas County	\$4,401	\$11,137	\$21,213	\$35,587	\$45,473
Lancaster County	\$4,122	\$10,076	\$18,316	\$30,279	\$37,152
Platte County	\$4,026	\$8,578	\$17,066	\$25,032	\$36,432
Sarpy County	\$3,436	\$8,697	\$17,587	\$27,703	\$39,621
Saunders County	\$3,293	\$7,509	\$15,071	\$26,523	\$38,697
State of Nebraska	\$3,796	\$9,272	\$18,088	\$28,598	\$39,445

Source: U.S. Bureau of Economic Analysis, Survey of Current Businesses, 2013.

Table 4. Median Family Income for Four-Person Family in 2012

County	Median Family Income
Butler	62,100
Cass ¹	72,700
Colfax	58,600
Dodge	56,700
Douglas ¹	72,700
Lancaster	67,900
Platte	63,400
Sarpy ¹	72,700
Saunders	71,800

Source: U.S. Department of Housing and Urban Development, 2013.

Notes: ¹Equal to the Omaha Metropolitan Statistical estimate.

The average residential home value from 2008 through 2013 is shown in Table 5. Overall, Nebraska experienced an increase of 0.6 percent in average residential home values from 2008 through 2013. The urban counties of Douglas, Sarpy, and Lancaster have had higher average residential home values when compared to the other counties, however the average value of homes in these urban counties were likely impacted by the recession of the late 2000's, with a decline in average home values or just a very slight appreciation. For example, the average annual change in price from 2008 through 2013 in Douglas County was -1.24 percent, -0.36 percent in Sarpy County and 0.37 percent in Lancaster County. In contrast, the average value of homes in Butler County increased by 3.22 percent on an average annual basis and 1.7 percent on an average annual basis in Saunders County. In general, the variation in home prices between urban and rural counties is an indication of where the demand for housing is greatest.

In general, the area of analysis has experienced a growth in urban population centers (cities of Lincoln and Omaha), and a slowing of growth in rural population area, along with an increase in income and housing prices within the urban areas (when compared to more rural areas). These trends have implications for recreation demand, as urban residents are likely to seek nature-based outdoor recreation activities away from the urban setting, as well as the likelihood that urban residents may have more disposable income and leisure time to pursue recreation activities.

Table 5. Average Residential Value, 2008 through 2013

	2008	2009	2010	2011	2012	2013
Butler County	\$64,754	\$65,977	\$67,747	\$71,437	\$74,575	\$75,889
Colfax County	\$68,177	\$69,066	\$70,073	\$71,022	\$72,230	\$73,881
Dodge County	\$102,149	\$102,015	\$102,635	\$102,357	\$102,559	\$101,045
Douglas County	\$151,170	\$145,503	\$143,713	\$148,390	\$146,765	\$141,993
Lancaster County	\$149,541	\$144,785	\$145,507	\$146,125	\$151,200	\$152,328
Platte County	\$100,335	\$105,146	\$111,893	\$116,191	\$118,355	\$121,668
Sarpy County	\$165,736	\$164,756	\$164,519	\$164,544	\$163,947	\$162,754
Saunders County	\$125,501	\$128,438	\$130,124	\$133,211	\$129,621	\$136,511
State of Nebraska	\$112,996	\$112,018	\$113,084	\$114,949	\$116,568	\$116,424

Source: Nebraska Department of Revenue, Property Tax and Assessment Division, 2013.

3.0 INVENTORY OF EXISTING RECREATION FACILITIES

A variety of parks and open space areas exist in the Corridor, including public and private resources offering various types of nature-based recreation experiences. Existing recreation plans, parcel data obtained from county governments, geographic data obtained from the NGPC, and staff interviews with various communities were used to identify existing recreation sites. The purpose of the inventory was to identify and map existing recreation sites, trails, and boat ramps.

3.1 Overview of Publicly Owned Recreation

Many of the state parks and recreation areas of the Corridor are highly visited destinations within the state of Nebraska. The state parks, state recreation areas (SRAs), and wildlife management areas (WMAs) are all managed and operated by NGPC. These areas range significantly in size and the types of recreation experiences offered. Being located near the two largest metropolitan areas makes some of these areas the most highly visited by state residents.

Descriptions of typical areas owned and operated by the state of Nebraska within the Corridor are provided below:

- State parks. State parks are defined by statute as parks of substantial area with the primary value of significant statewide scenic, scientific, or historic interest and having a complete development potential and, when possible, a representative portion which can be retained in a natural or relatively undisturbed state.
- State recreation areas. State recreation areas are considered part of the state park system and defined by statute as areas with a primary value for day use, but with secondary overnight-use facilities or potential, and which have reasonable expansion capability and are located in accordance with sound park management principles and state recreational trails.
- Wildlife management areas. Wildlife management areas are those areas which are primarily of public hunting, fishing, or other wildlife values. They are administered by the NGPC but neither as part of the state park system nor with park funds.

Descriptions of areas owned and operated by the state of Nebraska that are not found within the Corridor include:

- State historical parks. State historical parks are considered part of the state park system and defined by statute as only sites which, in the opinion of competent, recognized authorities, are of notable historical significance to the state of Nebraska, of a size adequate to develop the full interpretative potential of the site, and which may be equipped with limited day-use facilities when such facilities do not detract from nor interfere with the primary purposes and values thereof. There are no state historical parks in the lower Platte River corridor.
- State recreational trails. State recreation trails means linear corridors of statewide or regional significance, of value for non-motorized recreational use, and which may be equipped with amenities and support facilities appropriate to their intended purpose. There are no state recreation trails in the lower Platte River corridor.

Natural Resources Districts (NRDs) are watershed-based resource agencies which operate at the local level that also provide recreation within the Corridor. These agencies have been instrumental in developing some of the region's trails and boat launch sites within the Corridor. The Papio-Missouri River (P-MR) NRD, Lower Platte North (LPN) NRD, and Lower Platte South (LPS) NRD are heavily involved in providing recreation opportunities and have some ability to operate and maintain recreation facilities.

Federal lands and associated recreation resources do not exist in the lower Platte River corridor. The United States Army National Guard maintains some guard-related facilities near Ashland, but National Forests, National Parks, and other federal preserves are not present in the study area. In 2014 the National Park Service (NPS) partnered with the LPRCA to provide assistance under the NPS Rivers, Trails, and Conservation Assistance Program. This program provides assistance by helping its partners conserve local natural resources and develop close-to-home outdoor recreation activities. National Park Service staff assist applicants with conservation of rivers, preservation of open space, and trail and greenway development on local and regional scales in both rural and urban settings.

3.2 Parks and Recreations Areas

An inventory of existing recreation sites was performed using state and local data. Figures 7A – 7C show the existing parks and recreation areas. Descriptions of existing recreation sites within the Corridor by county are provided in the following sub-sections along with relevant information describing recreation plans from each county’s comprehensive plan. This information is intended to provide baseline recreation data for the Corridor, to quantify and qualify the existing recreation resources, to characterize the vision of recreation development and planning within the various local jurisdictions in the Corridor, and assist in identifying opportunities for additional recreation development later in this plan.

3.2.1 Platte County

The southeastern portion of Platte County (see Figure 7A) is situated at the western end of the Corridor on the north side of the Platte River near the confluence of the Loup and Platte Rivers. The city of Columbus is situated at that confluence and is the only community within the Corridor. Existing recreation resources in Platte County are provided by the NGPC, the city of Columbus, and the Loup Power District. A comprehensive plan describing recreation resources was not identified for Platte County. The following recreation sites within the Corridor were identified.

Flat Water Landing Wildlife Management Area

This WMA (see Figure 7A) is owned by the NGPC and is located on the north bank of the Platte River on the east side of Highway 81 two miles south of Columbus. The site is six acres in size and contains access for fishing and hunting. There are no established facilities or hiking trails.

Pawnee Park

Pawnee Park (see Figure 7A) is owned and operated by the city of Columbus. It is situated in the southern part of the city north of the Platte River and along the north bank of the Loup River which drains into the Platte River east of Columbus. The park offers a two-mile long recreational trail, basketball court, covered shelters, disc golf course, electrical hookups, fishing, picnic areas, playground equipment, skate park, swimming pool, and tennis court. Access is provided to the Loup River but not directly to the Platte River.

Powerhouse Park

Powerhouse Park (see Figure 7A) is owned and operated by the Loup Power District. The Loup Power District is a public power electric utility serving the area with hydro power services. The park is about 4.5 acres in size and located on the Loup Canal northeast of Columbus. Although it is situated just outside of the Corridor on the map, the site is along a waterway with a nearby connection to the Platte River. The park offers primitive camping, restrooms, short trails, playground equipment, and picnic tables and grills.

Tailrace Park

Tailrace Park (see Figure 7A) is owned and operated by the Loup Power District. The park is about 9.5 acres in size and located at the confluence of the Loup Canal and Platte River southeast of Columbus. The park offers playground facilities, picnic areas, fishing, and primitive camping.

3.2.2 Butler County

Butler County (see Figure 7A) is situated at the western end of the Corridor on the south side of the Platte River near the confluence of the Loup and Platte Rivers. There are no major population centers in this portion of the Corridor. A comprehensive plan with recreation components was not identified for Butler County. This county contains no existing recreation sites (see Figure 7A).

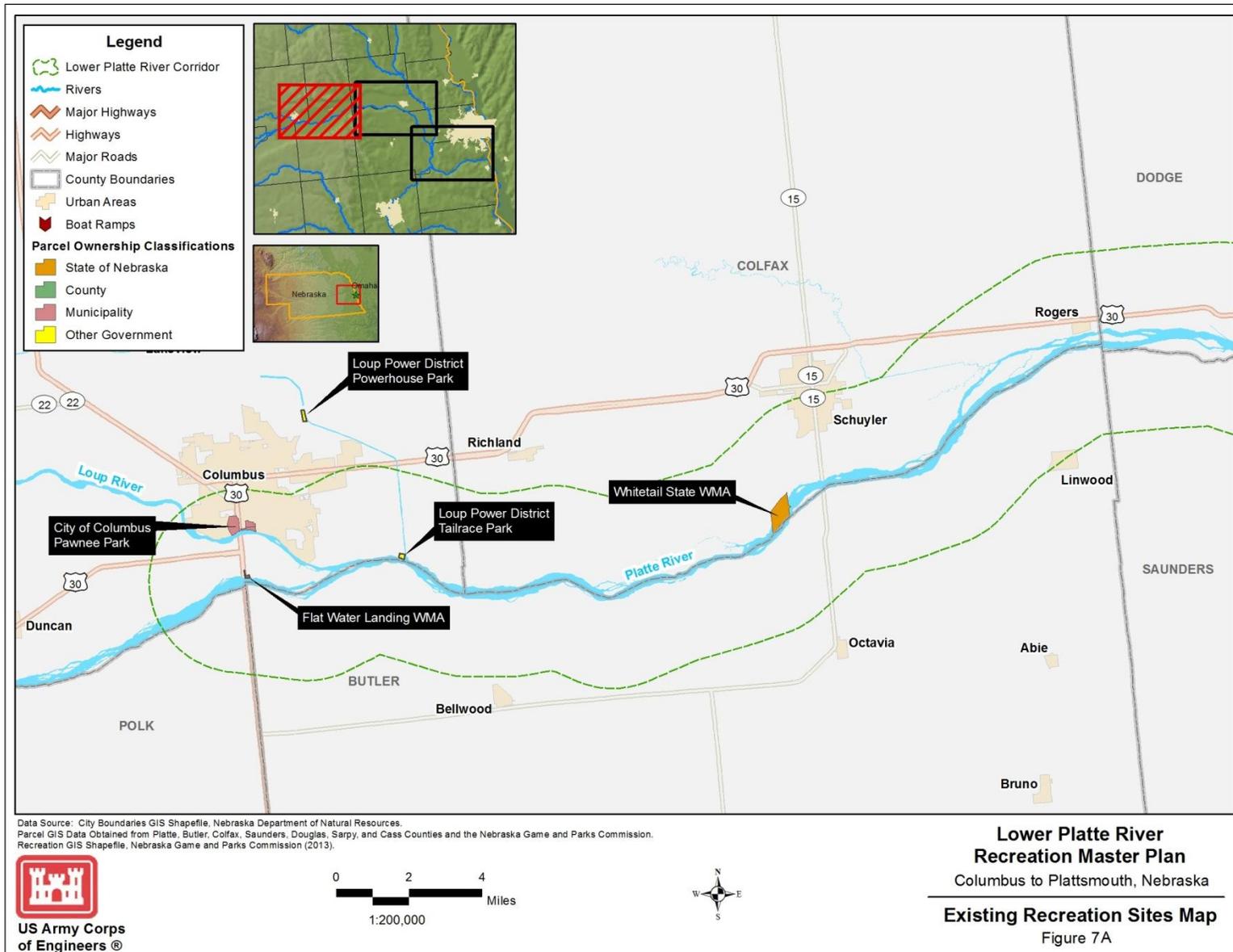


Figure 7A. Existing Recreation Sites Map (1/3)

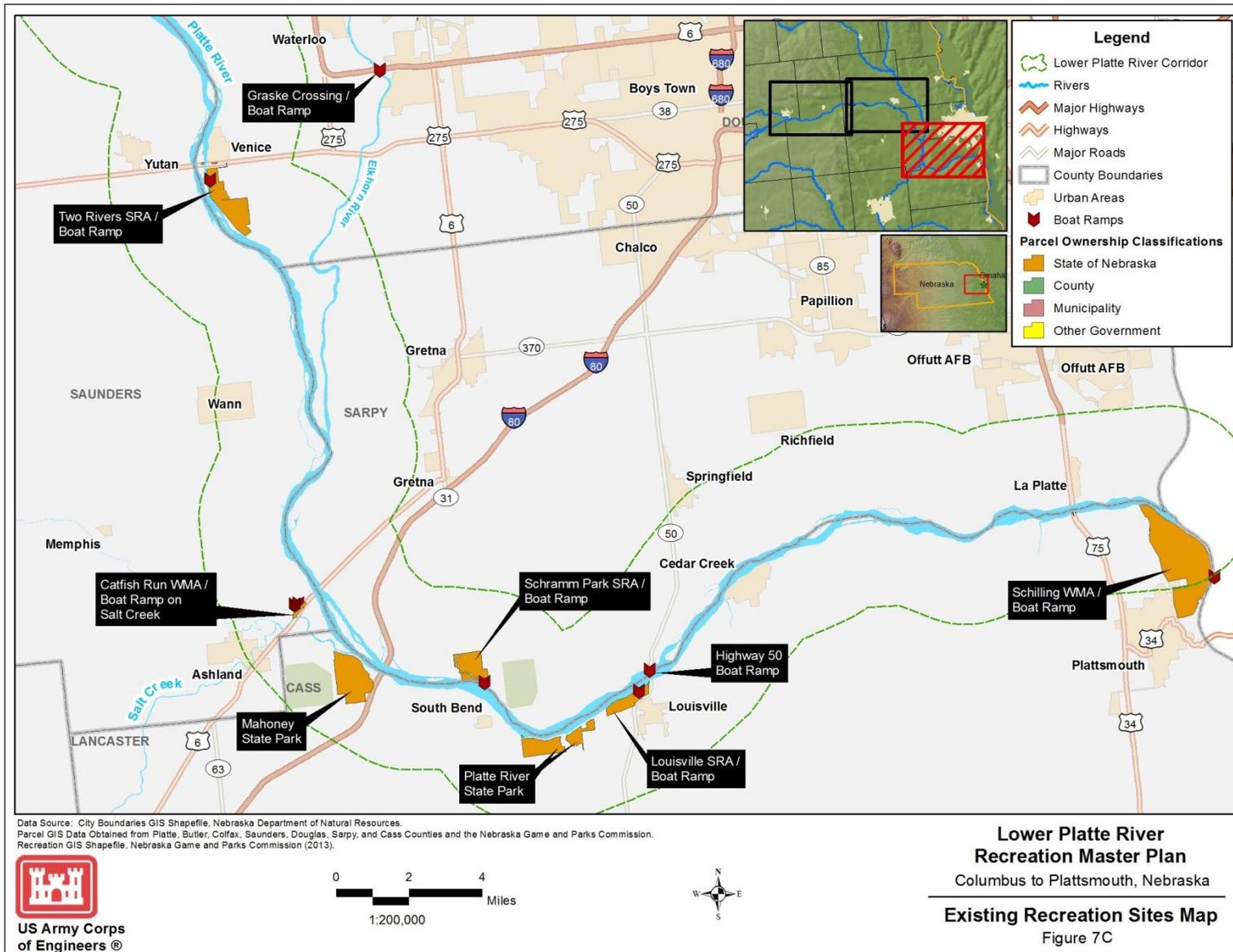


Figure 7C. Existing Recreation Sites Map (3/3)

3.2.3 Colfax County

Colfax County (see Figure 7A) is situated at the western end of the Corridor east of Platte County on the north side of the Platte River. Schuyler is the major city in the Corridor within Colfax County. Existing recreation resources in Colfax County are provided by the NGPC. Colfax County has a Comprehensive Plan from 1998. Goals of that plan include supporting park and recreation projects that can further economic development, conserving natural resources and preserving important environmental and/or historical features, and utilizing policies and capital improvement planning to maintain and preserve existing open space and provide areas for future parks, trails, recreation areas and open space activities. Specific objectives include:

- Promote development of county-wide trails system, incorporating recreation trails along public highways, roads, and recreational areas. Develop trails plan that links communities to recreational areas of Colfax County as well as adjacent counties.
- Encourage recreational amenities that offer enjoyment throughout the entire year.
- Set standards that require or promote dedication of parks and open space.
- Continue working with Natural Resources District and Nebraska Game and Parks Commission to increase and promote other recreational areas and opportunities throughout the county.
- Utilize agriculture conservation such as retention control as recreational areas.
- Promote public nature observation and hunting lands in the county.
- Improve County Fairground facilities.
- Improve recreational access to Platte River and other potential recreational amenities.

The following recreation site is located in Colfax County within the Corridor.

Whitetail State Wildlife Management Area

This WMA (see Figure 7A) is owned by the NGPC and is located on the north bank of the Platte River about three miles south and one mile west of Schuyler. The WMA consists of 216 acres of deciduous forest, woody wetlands, open water, and herbaceous areas. Whitetail State WMA is open to public hunting and fishing and provides access to the river by foot. A shallow oxbow wetland is located on the site. Boats can reach the site from the Platte River, but access can be restricted as depths are usually shallow. There are no established recreation facilities or hiking trails.

3.2.4 Dodge County

Dodge County (see Figures 7A and 7B) is situated in the middle of the Corridor on the north side of the Platte River. The Elkhorn River runs north to south along its eastern edge. Major cities in the Corridor include North Bend and Fremont. Existing recreation resources in Dodge County are provided by the NGPC, the city of Fremont, and the P-MRNRD. A comprehensive plan describing recreation resources was not available for Dodge County but the city of Fremont has a Parks and Recreation Master Plan that goes into considerable detail about future land use goals including for park areas near the lower Platte River. It contains recommendations for the general placement of parks within the city and its planning area, the type and quality of new facilities, and the method by which enhancements and improvements may be funded. The Fremont Parks and Recreation Master Plan focuses on growing trails and rehabilitating existing facilities. Discussion in the Master Plan includes the preservation and management of natural areas such as the state lakes and Luther Hormel Memorial Park. The focus on Hormel Park has been a topic of communications between the LPRCA and the city of Fremont, which indicates a probable opportunity for a partnership for development of further recreation at Hormel Memorial Park. Specific ideas discussed by the city of Fremont and the LPRCA include camping, expanded trails and even a Platte River Nature Center.

The city's commitment to expanding the trail network beyond their municipal boundaries to a more regional system is characterized by the follow excerpt:

“Since the City has close to sufficient park acreage for the population, a major focus of future planning should be on continuing to expand the bicycle, pedestrian, and trail networks...the City should look to link the Fremont trail system to the emerging Nebraska trail system. The Cowboy Recreation and Nature Trail, extending 109 miles across Northern Nebraska, is America's longest rail-trail. The Comprehensive Trails Plan found in the State Trail Development Plan illustrates a potential extension of the Cowboy Trail from Norfolk through Fremont to Omaha”

The city also has plans to continue expanding their trails systems including a trail link from Hormel Park to the Fremont Lakes SRA. This presents another potential opportunity for partnership for the development of recreation within the Corridor.

A map showing park facilities and existing and planned trails in Fremont is provided in Appendix B. The following recreation sites in Dodge County were identified.

Fremont Lakes State Recreation Area

Fremont Lakes SRA (see Figure 7B) is owned by the NGPC and is located three miles west of Fremont on the north side of the Platte River. The Fremont SRA does not abut the river but consists of about 40 land acres and nearly 300 water acres in 20 sandpit lakes. This SRA is one of the most popular recreation destinations in the state of NE. According to state records, it was the fourth most visited attraction in the state with 874,800 visitors in 2013 (Nebraska Tourism Commission). The recreation area consists of deciduous forest, woody wetlands, open water, emergent herbaceous wetlands, and herbaceous areas. Campers, anglers, boaters, swimmers, picnickers and other outdoor enthusiasts enjoy this outdoor recreation area. Existing facilities include tent camping, modern campgrounds with dump stations, picnic tables, shelter houses, fireplaces, playground equipment, water, lights, modern restrooms and boat launch sites to the lakes within the SRA. There are no boat launch sites to the Platte River.

Wildwood Park

This site (see Figure 7B) is owned by the city of Fremont and is located about a mile southwest of the city on the north side of the Platte River. This site is near but does not share a boundary with the Platte River. Distance to the river from the park is less than 0.25 miles. This two-acre park located outside of Fremont is accessible by paved roads from the east and north. The park grounds are almost exclusively forested with few open areas. This site has no existing facilities but hiking and biking trails do exist.

Hormel Park

This site (see Figure 7B) is owned by the city of Fremont and located at the south end of the city on the west side of Highway 77 and north of the Platte River. The site is over 150 acres in size and abuts the river for about one mile. It contains a concrete boat ramp, primitive camping, trails, canoeing, fishing, arboretum, and picnic areas.

3.2.5 Saunders County

Saunders County (see Figures 7A, 7B, and 7C) is situated in the middle of the Corridor on the right bank of the Platte River. Major cities in the Corridor include Morse Bluff, Lashara, Yutan, and Ashland. The city of Ashland is situated along Salt Creek near its confluence with the Platte River. Existing recreation resources in Saunders County are provided by the NGPC. A comprehensive plan with recreation components was not identified for Saunders County. The following recreation sites are located in Saunders County within the Corridor.

Bramble Wildlife Management Area

This WMA (see Figure 7B) is owned by the NGPC and is located on the south bank of the Platte River about five miles southeast of North Bend. The WMA is about 93 acres in size and consists of woody vegetation along the riverbank, open water, wetlands, and herbaceous vegetation. The area is open to public hunting and fishing. A dirt road along the west side of the site leads to the river.

Catfish Run Wildlife Management Area

This WMA (see Figure 7C) is owned by the NGPC and is located on the north side of Highway 6 on the left bank of Salt Creek about two miles upstream from its confluence with the Platte River. The WMA is about 21 acres in size and consists of a mixture of woody and herbaceous vegetation. The site is open to public archery hunting and fishing. A formal boat ramp does not exist but this site does serve as an access point for canoes and kayaks to Salt Creek.

3.2.6 Douglas County

Douglas County is situated along the left bank of the Platte River generally in the middle portion of the Corridor. Major cities include Valley and Venice. The Elkhorn River also runs through Douglas County within the Corridor. Recreation sites within Corridor and along the Elkhorn River in this county are owned NGPC and P-MRNRD. Douglas County's Comprehensive Development Plan from March, 2006 has a parks and recreation component. Parks and recreation concepts are discussed in the context of the land use plan. In addition to municipal parks within constituent towns, the jurisdiction's main recreation facility is Two Rivers SRA. The jurisdiction also includes several privately-owned recreation facilities and campgrounds. Major parks, open space, and recreation recommendations include:

- Incorporating park land and open space by applying conservation subdivision concepts.
- The preservation of a substantial part of a subdivided parcel in common or open space will provide adequate reservations of open space for recreation purposes. Each subdivision's open space should be open ended, connecting to adjacent development and creating a linear park and open space system across the county.
- Modifying and extending Omaha's Suburban Parks Master Plan should be extended to future Urban Development Districts. Providing designated neighborhood and community parks ensures a level of service residents with Douglas County's communities have come to expect.
- In those areas where conservation design techniques are not mandatory, the purchase of open space may be necessary to preserve rural character. If a developer chooses not to use these techniques they should make a payment into a special open space benefit fund, based on a ratio of open space to platted residential land.
- Preparing a detailed implementation plan for the Elkhorn Preserve. This concept envisions a system of public lands, lands held by nonprofit organizations and land trusts, and private lands, united in maintaining the integrity of this unusual environment. The implementation plan and its execution should be developed in cooperation with Waterloo and Elkhorn, whose jurisdiction incorporates significant parts of the river corridor. It must include adjacent property owners and the Papio Missouri River Natural Resources District (P-MRNRD) to develop a cooperative concept for management and to define appropriate levels and locations for public use and access. This process has begun with the canoe access study completed by P-MRNRD for the Elkhorn River.
- Completing the regional trail system as outlined in the transportation section of the Douglas County Comprehensive Plan.

The following recreation sites are located in Douglas County.

Elkhorn Crossing / Boat Ramp

Elkhorn Crossing (see Figure 7B) is one of three canoe access parks owned by the P-MRNRD on the Elkhorn River. It is located just east of the intersection of 252nd Street and Bennington Road. It is one of three paddle access parks managed by the P-MRNRD. The park features fishing, a concrete boat ramp, drinking water, restrooms, handicap facilities, parking, picnicking/day use, and tent and RV camping facilities (no electrical hookups). The park provides a large-group camping location for local youth, families, river float trip enthusiasts and others.

The boat ramp is used by many as a put-in location for float trips to the Elkhorn River along with access sites at West Maple Road and Graske Crossing near West Dodge Road (described below). These three sites facilitate short to moderate river float trips for tubers, canoeists, and kayakers on the Elkhorn River.

West Maple Road Access Site / Boat Ramp

The West Maple Road Access Site (see Figure 7B) is the second of the three canoe access parks owned by the P-MRNRD on the Elkhorn River. The site is operated and maintained by the Village of Waterloo and located on the south side of Highway 64 on the east bank of the Elkhorn River. The site offers fishing, a concrete boat ramp, restrooms, handicap facilities, parking, picnicking/day use, and wildlife viewing.

Graske Crossing / Boat Ramp

Graske Crossing is one of three canoe access parks owned by the P-MRNRD on the Elkhorn River (see Figures 7B and 7C). The site is located on the Elkhorn River off of West Dodge Road. The site offers fishing, a concrete boat ramp, restrooms, handicap facilities, parking, picnicking/day use, and wildlife viewing.

Platte River Landing / Boat Ramp

This site (see Figure 7B) is owned by the P-MRNRD and located near Highway 64 on the Platte River. Platte River Landing is a two-acre site offering public access to the Platte River. This facility opened in 1992 and was constructed in conjunction with the Union Dike Flood Control Project. The site offers fishing, a concrete boat ramp, restrooms, handicap facilities, parking, picnicking/day use, and wildlife viewing. It is an estimated 1/2 day canoe trip to Two Rivers, or a full day trip to Louisville SRA.

Two Rivers State Recreation Area

Two Rivers SRA (see Figure 7C) is owned by the NGPC and located three miles west of Omaha on the east bank of the Platte River. Two Rivers SRA is highly visited recreation destination with an estimated 356,300 visitors in 2013 (Visit Nebraska, 2013). The SRA includes 302 acres of land and 320 acres of water in five lakes adjacent to the Platte River. The topography of this SRA is characterized by deciduous forest, woody wetlands, cultivated crops, open water, emergent herbaceous wetlands, and grassland. Campers, anglers, non-powered boaters, swimmers, picnickers and other outdoor enthusiasts enjoy this outdoor recreation area. Existing facilities include modern campgrounds with dump stations, picnic tables, shelter houses, fireplaces, playground equipment, water, lights, and restrooms. There is no concrete ramp at the river, but access to the river for canoes and kayaks exists via earthen banks. There are plans to construct a formal boat ramp and paddle access area in the future.

3.2.7 Sarpy County

Sarpy County is situated at the eastern end of the Corridor along the north side of the Platte River on the left bank. The Elkhorn River has its confluence with the Platte River in this area. The Corridor within this county contains sites owned by the NGPC. The Sarpy County Comprehensive Plan has parks and

recreation components. The Parks and Recreation Vision Statement is: Preservation and conservation of the county's natural resources (Missouri, Platte, Elkhorn and Papio drainages) will help to support an attractive and vital place for people to live and work. Trails and pathways are currently important parts of the Sarpy recreational landscape and should continue to expand. In addition to the existing or currently planned facilities, the plan includes the following major trail or pathway corridors:

- Portions of the Platte River bank, extending Highway 31 west from the Lied trail bridge to Schramm Park and Highway 6, and east from Highway 50 to the creek at 114th Street.
- The major drainage corridors extending north from the Platte River.
- An east-west north county greenway from Gretna to the Papio system, using a Papio tributary and Giles Road.
- The Sarpy County Parkway.
- Links to the planned trail systems of Sarpy County's cities.
- A greenway along the Cross-County Arterial.
- The local greenways contained within neighborhood units

The following recreation sites are located in Sarpy County.

Schramm Park State Recreation Area

Schramm Park SRA (see Figure 7C) is owned by the NGPC and located about 20 miles southwest of Omaha and about two miles east of Interstate 80 on the north side of the Platte River. The site is about 170 acres and consists of deciduous forest, mixed forest, woody wetlands, hay and pasture, cultivated crops, open water, developed open space, and herbaceous areas. The SRA includes hiking trails, fishing access, and a visitor center that houses an aquarium, restrooms, and wildlife viewing. A concrete boat ramp exists but due to bank erosion from periods of high flows and NGPC maintenance shortfalls it is not usable as a formal ramp and not easy to find. The ramp has been used to launch canoes and kayaks with the assistance of a ladder. There is also paddle craft access to the river from a junction with a small creek at the west end of the access area. Anglers, hikers and picnickers enjoy this outdoor recreation area.

The Larry Elston Archery Range is part of a 4H Camp near Schramm SRA. The Larry Elston Archery Range is an outdoor range open year round located south of the aquarium just past the 4-H camp entrance. The range offers various archery challenges for those that have their own equipment and encompasses a target range, a roving field course and an elevated tower range.

Highway 50 Boat Ramp

On the north side of the Platte River across from Louisville SRA on the west side of Highway 50 there is a parking lot with a public concrete boat ramp (see Figure 7C). It is owned and maintained by the Nebraska Game and Parks Commission. The MoPac east trail runs adjacent to the access area.

3.2.8 Cass County

Cass County is situated at the eastern end of the Corridor on the south side of the Platte River on the right bank. Major communities within the Corridor include South Bend, Louisville, Cedar Creek, and Plattsmouth. Cass County contains recreation sites owned by the NGPC. The Cass County Comprehensive Plan describes the goals of supporting park and recreational projects that can further economic development and conserving natural resources and preserving important environmental features. It states that Cass County shall utilize policies and capital improvement planning to maintain and preserve existing open space and provide areas for future parks, recreation areas and open space activities. In addition, Cass County is committed to working with the NGPC to improve state parks in the county.

The objectives of the plan related to recreation include:

- Encourage supportive recreational businesses and amenities to offer year-round enjoyment.
- Set standards that require or promote dedication of parks and open space within rural subdivisions.
- Utilize agriculture conservation techniques to provide recreational opportunities. For example, areas around stormwater retention areas or detention ponds can be utilized for recreation throughout the year except during stormwater events in these floodprone areas.
- Continue to assist in the development and enhancement of the local State Parks and the other recreation areas noted in the County Profile Section of this plan.
- When possible, provide for parks and recreational facilities that are reasonably accessible to residents of Cass County.

The following recreation sites are located in Cass County.

Mahoney State Park

Mahoney State Park (see Figure 7C) is owned by the NGPC and located near Ashland on the south side of the Platte River. The park is a highly visited recreation area consisting of 690 acres of land adjacent to the Platte River. In 2013 there were approximately 113,510 visitors to the state park (Visit Nebraska). The park is characterized by deciduous forest, woody wetlands, cultivated crops, open water, hay and pasture, developed open space and herbaceous areas. However, boat access to the Platte River is not available in Mahoney State Park, due the proximity of the river to forested steeply rolling hills. Campers, anglers, swimmers, hikers, picnickers, horseback riders and other outdoor enthusiasts enjoy this outdoor recreation area. Existing facilities include rental cabins, modern campgrounds with dump stations, picnic areas, shelters, fireplaces, playground equipment, lakes, a swimming pool, and restrooms.

Platte River State Park

Platte River State Park (see Figure 7C) is owned by the NGPC and located about two miles west of Louisville off of Highway 50 on the south side/right bank of the Platte River. Platte River State Park is a popular recreation destination, with an estimated 788,610 visitors in 2013 (Nebraska Tourism Commission). The area consists of about 418 acres of land. The park merged what were once three separate areas including a 104-acre wooded area and a waterfall. There is limited Platte River access, but construction of a paddle craft launch site in Decker Creek close to the confluence with the Platte River is planned. The site is characterized by deciduous forest, woody wetlands, evergreen forest, open water, and herbaceous areas. Campers, anglers, non-power boating, horseback riders, swimmers, picnickers and other outdoor and archery and gun enthusiasts enjoy this outdoor recreation area. Facilities include modern campgrounds with dump stations, picnic tables, shelters, fireplaces, playground equipment, potable water, lights, and modern restrooms.

Louisville Lakes State Recreation Area / Boat Ramp

Louisville Lakes SRA (see Figure 7C) is owned by the NGPC and located northwest of Louisville off of Highway 50. It's a highly visited recreation area with an estimated 534,800 visitors in 2013 (Nebraska Tourism Commission). The site consists of 192 acres of land with five sandpit lakes totaling 50 surface acres of water adjacent to the Platte River. This recreation area does not have formal access to the Platte River, but depending on water levels paddle craft access exists during certain times throughout the year. The NGPC is considering adding more formal launch sites, including a concrete ramp on the east end of the recreation area and formal paddle access at the west end of the recreation area in the tent camping area.. The SRA consists of multiple land classifications which includes woody wetlands, open water, and herbaceous areas. Campers, anglers, swimmers, picnickers and other outdoor enthusiasts enjoy this outdoor recreation area. Existing facilities include modern campgrounds with dump stations, picnic tables, shelters, fireplaces, playground equipment, potable water, lights, and modern restrooms.

Schilling Wildlife Management Area

Schilling WMA (see Figure 7C) is owned by the NGPC and located near Plattsmouth. The site consists of about 1,500 acres of land and 25 acres of water and is bordered by the Missouri and Platte Rivers. The Platte River is accessible at this recreation area however access to the river is challenging, requiring a scramble up or down a wooded bank. This WMA encompasses multiple land classifications which include woody wetlands, cultivated crops, hay and pasture, open water, emergent herbaceous wetlands, and herbaceous areas. Amenities for recreation are limited but visitors can enjoy fishing, picnicking, nature observation, wildlife photography, horseback riding, archery and hiking. The area provides bank fishing access to two miles of the Missouri River and one-half mile of the Platte River. A boat dock exists in this area along the Missouri River but not the Platte River. The boat launch on the Missouri River is concrete, but due to faster and more turbulent currents this is less attractive as a launch or take-out site for paddle craft enthusiasts.

3.2.9 Amenities Summary

Table 6 shows a summary of the amenities at the existing recreation sites. Note that high quality boat launch sites do not have any identified needed improvements and low quality boat launch sites have identified needs.

Table 6. Summary of Amenities at Existing Recreation Sites

Recreation Site Name	County	River	Boat Launch to River (High Quality)	Boat Launch to River (Low Quality)	Fishing	Hunting	Swimming	Drinking Water	Restrooms	Handicap Facilities	Tent Camping	RV Camping	Electrical Hookups	Showers	Lodging	Dump Station	Hiking Trails	Biking Trails	Equestrian Trails	Picnicking/Day Use	Archery Range	Shooting Range	Wildlife Viewing	
Bramble WMA	Saunders	Platte			X	X																	X	
Catfish Run WMA	Saunders	Salt Creek		X	X	X																		
Elkhorn Crossing	Douglas	Elkhorn	X		X			X	X	X	X	X								X				
Flat Water Landing WMA	Platte	Platte			X	X																		
Fremont Lakes SRA	Dodge	Platte					X	X	X	X	X	X	X		X									
Graske Crossing	Douglas	Elkhorn		X	X				X	X										X			X	
Highway 50 Boat Ramp	Sarpy	Platte		X	X																			
Hormel Park	Dodge	Platte		X	X													X	X				X	
Louisville SRA	Cass	Platte		X	X		X	X	X		X			X		X	X	X	X	X			X	
Mahoney State Park	Cass	Platte			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X				X
Pawnee Park	Platte	Loup			X		X	X	X				X					X		X				
Platte River Landing	Douglas	Platte		X	X				X	X										X			X	
Platte River State Park	Cass	Platte			X		X	X	X		X			X	X		X	X	X	X			X	
Powerhouse Park	Platte	Loup Canal							X		X									X				
Schilling WMA	Cass	Missouri	X		X															X	X		X	
Schramm Park SRA	Sarpy	Platte		X	X				X								X	X	X	X			X	
Tailrace Park	Platte	Platte/Loup Canal			X						X									X				
Two Rivers SRA	Douglas	Platte		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X
West Maple Access Site	Douglas	Elkhorn	X		X				X	X										X			X	
Whitetail State WMA	Colfax	Platte			X	X																		
Wildwood Park	Dodge	Platte															X	X					X	

3.3 Park Maintenance

Maintenance of parks, access areas, and other recreation facilities can be resource intensive to the agency, community, or organization that own or operate the facilities. Cooperative arrangements regarding operation and maintenance are fairly common and will need to be explored as additional access areas or facilities are identified and developed.

Generally the agency who owns the recreation site is responsible for the funding and maintenance of a site. Funding for maintenance of NGPC lands is provided either solely through user fees or through funds appropriated to the NGPC for maintenance work. Over the past decade the NGPC has operated with a significant maintenance funding shortfall. The legislature dedicated an increased pool of funds during 2014 to assist the NGPC with completing maintenance and facility updates which the NGPC is currently implementing. The P-MRNRD maintains two of the three boat and paddle access areas that were built by the NRD. The third was constructed by the NRD but is maintained by the city of Waterloo. The LPNMRD constructed the Hormel Park boat ramp and provides major or emergency maintenance but the city of Fremont maintains the facility on a day-to-day basis.

Since 2009 the NGPC has been working to identify and quantify the deferred maintenance needs for all of the State Park and SRAs. This list has been prioritized and since 2013 NGPC has invested at least \$1.2 million per year toward addressing these concerns. In 2014 the state legislature approved a one-time appropriation of \$17.35 million to assist in tackling the approximately \$44.5 million backlog of projects. These funds have allowed NGPC to proceed quickly with several of the highest priority items including new restroom and shower facilities at many locations throughout the state, and a new water and sewer system at Platte River State Park. These improvements though not always visible to the average park user do improve the quality of everyone's visit to the area. The NGPC is fully committed to continue the work that has been started and intends to invest at least \$1 million a year towards the deferred maintenance list in the foreseeable future.

3.4 Golf Courses

Along the length of the Corridor there are multiple public and private golf courses. Some are located within the boundaries of municipalities while others are situated in the rural landscape. Small town golf courses are affordable and easy to access for local residents and out of town golf enthusiasts. The most prominent golf course in the Corridor is the Quarry Oaks Golf Club, which overlooks and borders the Platte River just southeast of the Interstate 80 Bridge. This course has been recognized many times nationally and locally for affordability, spectacular scenery, and high-quality environmentally sound design. Quarry Oaks also hosts two to three fun runs per season and opens the course for fall foliage tours each fall.

3.5 Trails

The combination of rural, urban, and natural landscapes in the lower Platte River Corridor has created a varied network of existing and planned trails. Due to the large population of the region and the scenic beauty of the Platte River, the potential for new trails is high. As discussed in this section, trails have the ability to provide many benefits that can meet the recreation needs of people in the study area. According to the NGPC Comprehensive Trails Plan for the State of Nebraska ("NGPC Trails Plan") (2004), benefits of a trails system include:

- Recreation
- Health and physical activity
- Transportation

- Economic and community development
- Improved community image and quality
- Historical interpretation
- Environmental education and preservation
- Corridor conservation for multiple uses

The counties which encompass the lower Platte River consistently support the enhancement and development of recreational trails in their master planning efforts. For example, Colfax County's Comprehensive Plan (1998) includes objectives to promote development of a county-wide trails system, develop a trails plan that links communities to recreational areas in Colfax County as well as adjacent counties, and improve recreational access to Platte River and other potential recreational amenities. Douglas County's Comprehensive Development Plan (2006) recommends completion of a regional trail system and improving canoe access on the Elkhorn River. Sarpy County's Comprehensive Plan (2005) indicates that trails and pathways are important parts of the county recreational landscape and should continue to expand. The plan promotes community trails linking existing trail systems to the county's cities and the MoPac Trail development that connects to the Lied Bridge which crosses the Platte River near South Bend.

The rural characteristics of the lower Platte River corridor offer a lot of opportunities for development of connecting trails, which can link small towns with recreation areas along the river. Municipalities adjacent to the lower Platte River play a vital role in establishing and maintaining trails. Municipal trails may be primarily focused on providing local residents recreation opportunities, but they can also serve as connecting trails that provide linkages to recreation areas or the river. Currently the communities of Columbus, Fremont, and Waterloo have existing trails and are planning for future trails.

Improving the existing network of trails requires inventorying both existing and planned trails in the region. For consistency the trails in this plan are classified using the same classifications as the NGPC Trails Plan. Those categories are:

- Multiple Use Trails
 - Regional Trails
 - Connecting Trails
 - Park Trails
 - Community Trails
- Equestrian Trails
- Facilities for Off Highway Vehicles
- Canoe Trails

3.5.1 Multiple Use Trails

Multiple use trails are broken out into four functional groups: regional trails, connecting trails, park trails, and community trails. An inventory of existing and planned trails for each group was performed for this plan and is summarized below.

3.5.1.1 Regional Trails

Regional trails typically follow railroad corridors, streams, and road corridors and are over ten miles in length. Endpoints and trailheads include parks, towns, major attractions, and other physical features (NGPC, 2004). Three regional trails with existing or planned features that have connectivity to the Platte River or communities adjacent to the river are discussed, and shown in Figure 8.

Omaha to Lincoln Trail

The trail system connecting Omaha and Lincoln is a combination of linkages commonly referred to as the MoPac East Trail, Platte River Connection/Lied Bridge, and the MoPac Trail. The MoPac Trail is shown in red in Figure 8. A significant portion of this trail were constructed on old rail lines between the two metropolitan areas.

- The MoPac East Trail is completed from Lincoln to Wabash, a distance of 22 miles. This trail begins near 84th and O Street in Lincoln where it connects to a city-wide trail network over 130 miles in length (including the MoPac West Trail). From there, it runs northeast through rural farmland to the small town of Wabash. Another rural segment is planned which will connect the trail from Wabash to the Lied Pedestrian Bridge near South Bend. A marked route along county roads currently exists on this planned connection with the Platte River. The MoPac East Trail join's Lincoln's MoPac Trail on the eastern edge of Lincoln. The city of Lincoln's MoPac Trail extends through the city of Lincoln and joins various other trail segments that allows the users to connect all the way to the Homestead Trail on the southwest side of Lincoln. The Homestead Trail extends to Marysville, Kansas. Once all segments of the MoPac East Trail are complete it will be possible for trail users to travel between Omaha and Marysville, KS completely on trails. The Lower Platte South Natural Resources District (LPSNRD) owns and operates the MoPac East trail.
- The Lied Bridge/Platte River Connection was opened in 2002. The bridge was constructed by LPSNRD and Papio-Missouri River NRD with additional funding provided by the Lied Foundation, the Nebraska Environmental Trust and many private donors. This old railroad bridge was converted to a trail. The bridge and a nearby trailhead constructed by LPSNRD and maintained by NGPC are adjacent to South Bend. The bridge was an important component of the NRDs' plans to establish a linkage between the Omaha and Lincoln trail networks. Since being opened, the LPSNRD and P-MRNRD have been working to extend their trail systems to the bridge. P-MRNRD's trail segment was completed in fall 2014. The bridge is currently maintained by the Nebraska Game and Parks Commission.

The MoPac Trail begins on the Cass County side of the Lied Bridge/Platte River Connection. From there it extends from the bridge east for about three miles before running north. It mostly parallels Highway 50 before reaching Springfield, where it then continues north a few more miles before ending at Schram Road. From here the trail is intended to connect to Omaha's trail network. The Papio-Missouri River NRD operates and maintains this trail.

Western Douglas County Trails System

The Western Douglas County Trails System is briefly mentioned in the NGPC Trails Plan as a planned trail system connecting Valley, Waterloo, and Elkhorn to Fremont, the Platte River, and the metropolitan Omaha trail system. The Western Douglas County Trail is shown in purple in Figure 8. The NGPC Trails Plan does not show specifically planned routes but it does mention that funding was being allocated to this system in 2004. As of January 2014, the most recent trails map produced by the P-MRNRD indicates that this system of trails in Douglas County is still in the planning stage. At the western end of Douglas County the route meets the Platte River at the Highway 64 Bridge west of Valley. From there the trail runs east, passing through Valley before connecting to the existing trail network in Waterloo. From Waterloo there is a planned trail network that runs east along West Maple Road for about a mile and a half before connecting to some existing park trails in Elkhorn. The trails in Elkhorn are not

connected to Omaha's trail network. However a planned trail along the Old Lincoln Highway would lead to a linkage with the West Papio Trail near 144th and Dodge Street.

Fremont to Hooper Trail

A trail from Fremont to Hooper is briefly mentioned in the NGPC Trails Plan. This trail would run parallel with an abandoned railroad, the Fremont and Elkhorn Valley Railroad and is shown in green in Figure 7. At this time the railroad is still a privately-owned property and the regional trail appears to be in the conceptual stages and it is unclear whether it will ever be constructed. This regional trail, if implemented, could provide the opportunity for the lower Platte River to have a connection to the lower Elkhorn resource corridor.

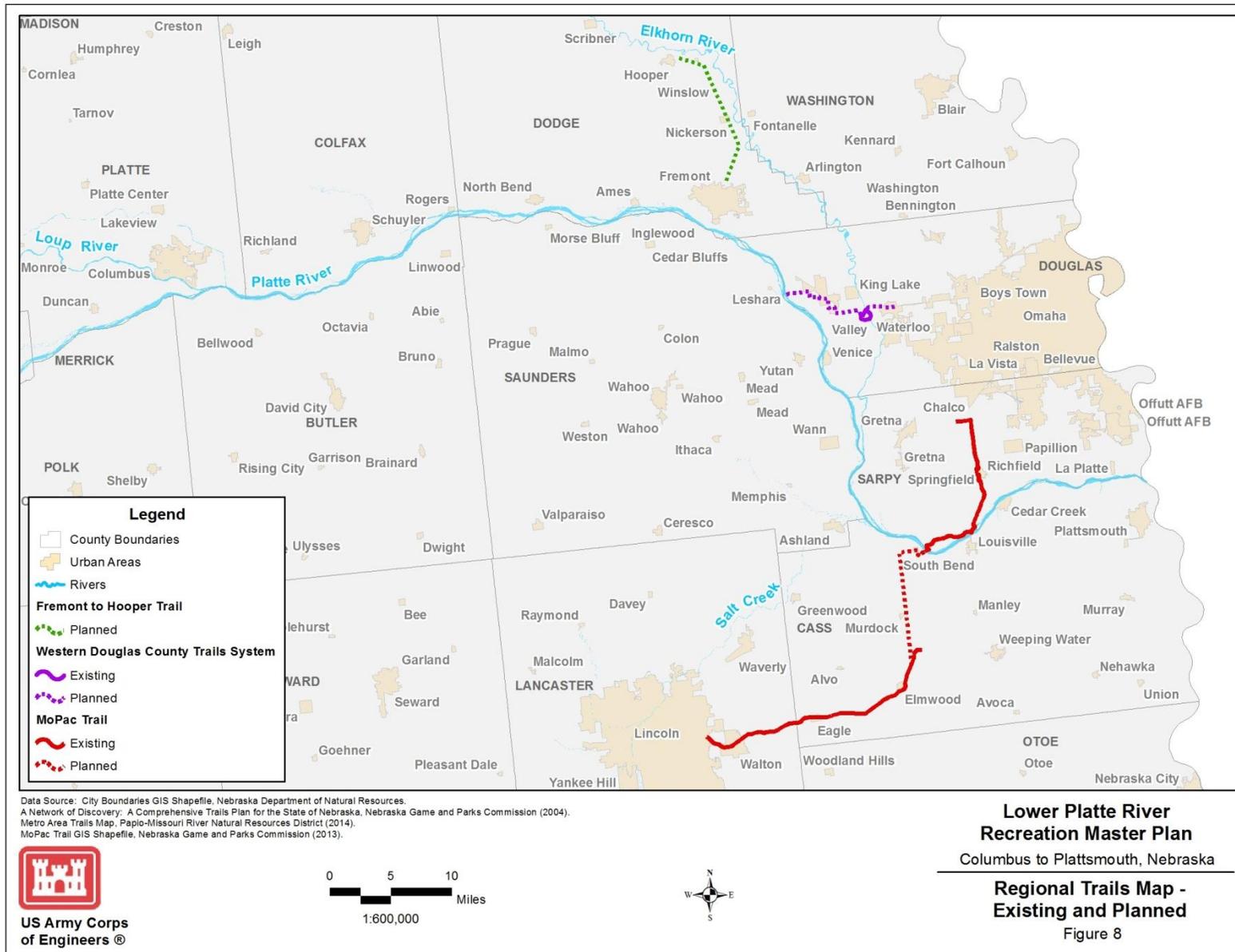


Figure 8. Regional Trails Map – Existing and Planned

3.5.1.2 Connecting Trails

Connecting trails typically link a town or trailhead with a recreational facility or major attraction outside of that town. These trails can help to establish the town as a “home base” for visitor services, and are usually less than ten miles long. Connecting trails may also link the town to a regional trail (NGPC, 2004).

City of Fremont to Fremont SRA

The city of Fremont has proposed a connector trail that would connect existing city trails with the Fremont State Lakes State Recreation Area. The connector trail would also importantly connect Hormel Park with the SRA and trails within Fremont.

3.5.1.3 Park Trails

Park trails are located completely within a recreation or park area. Nebraska’s state parks and many of its SRAs include trails or trail systems. In the lower Platte River corridor the NGPC has developed multi-use trail systems within Schramm SRA, Two Rivers SRA, Platte River State Park, and Mahoney State Park, its busiest facility. The city of Fremont has developed hiking and biking trails in Hormel Park and Wildwood Park.

3.5.1.4 Community Trails

These popular trail systems meet the recreational and transportation needs of individual cities, towns, and villages. Community trails may connect with regional trails or they may be long enough that they resemble regional trail systems. These trails play a number of roles, but are primarily used for recreation. Secondary uses are for getting to work, shopping, or to school (NGPC, 2004). Currently the communities of Columbus, Fremont, and Waterloo have existing trails and are planning future trail development.

Columbus

The Columbus Area Recreational Trails (CART) is a non-profit organization groups that advises on the construction of new trails in Columbus. The group assists with coordination, new trail development, funding, maintenance, and planning for trails throughout the city and nearby areas. There are over 16 miles of park trails and connections that make up the community’s network of trails. A summary of trails and parks in Columbus is provided in Appendix B.

Fremont

The city of Fremont completed a Parks and Recreation Master Plan in 2012. The plan states that expanding the trail network is an important need for the community (City of Fremont, 2012). Currently the city of Fremont has completed two segments of community trails with one on the east side of the city and one on the west side of the city. The master plan identifies multiple other concrete or shared-road trail segments to extend throughout the city. A trails map is included in Appendix B

Waterloo

Waterloo is located in western Douglas County in close proximity to the Platte River. The community has completed the Waterloo Trail, which is an eight-foot concrete trail that follows an Elkhorn River levee, features a pedestrian-only railroad crossing, and connects to parks and the school. A local support group and committee have championed the project since the beginning. Portions of the system were funded with grants from the NGPC, matching funds from the P-MRNDR and private funds (NGPC, 2004). According the the NGPC Trails Plan, future stages will integrate the trail into the Western Douglas County Trails System.

3.5.2 Equestrian Trails

In Nebraska, equestrian trails are usually located within state parks and recreation areas and occasionally along multiple-use trails (NGPC, 2004). Equestrian trails are open for the public to ride their own horses. Along the lower Platte River corridor, Mahoney State Park, Platte River State Park, Two Rivers SRA, Schramm SRA have equestrian trails. The MoPac trail is also open for equestrian use.

3.5.3 Facilities for Off Highway Vehicles

Off-highway motorized vehicles (OHV) are vehicles that are typically designed primarily for off-road recreational use. They include all terrain vehicles (ATVs), snow mobiles, and off-road motorcycles and vehicles that may be legally operated on streets such as jeeps, small trucks, and dune buggies. Off-highway motorized vehicles enjoy topographically varied settings, open space, and parks that permit a variety of trail experiences (NGPC, 2004).

In the lower Platte River corridor the most common type of OHV is the ATV. These users have been known to operate ATVs in the shallower areas and exposed sandbars of the river.

3.5.4 Canoe Trails

Canoe trails are trails that allow for paddle craft and other non-motorized boats to follow a water-based trail (NGPC, 2004). While some rivers are popular for kayakers because of their challenging rapids and steeper gradients, canoe trails are open to a broader segment of the public on rivers and streams like the lower Platte River which have slower moving water, shallow depths, and minimal obstructions. Potential exists for establishment of formal canoe trails that utilize existing boat ramps on the Platte River, Elkhorn River, and Salt Creek. Recreation users may also benefit from more access to the river for canoe trails in the Columbus to North Bend reach of the river, as this area currently lacks access and camping. Currently there is one location on the Platte River and one on the Elkhorn River that has camping associated with launch sites. From Platte River Landing it is estimated that it takes about a half day to reach Two Rivers SRA and a full day to reach Louisville SRA, so more sites which offer camping would benefit people who enjoy extended/overnight paddling trips.

According to the NGPC Trails Plan, one canoe trail exists in the lower Platte River corridor. That canoe trail begins at North Bend and extends to the Schilling WMA boat ramp on the Missouri River for a total length of about 73 miles. The canoe trail begins near North Bend. Along the canoe trail route there are eight public access sites where a paddle craft could be launched or taken out of the river, as shown in Table 7. As Table 7 indicates each site has varying amenities.

Table 7. Platte River Boat Ramp and Paddle Craft Access Sites

Platte River Access Sites	River Mile	Concrete Boat Ramp (Y/N)	Camping (Y/N)	Comments
Highway 79 (North Bend)	72.5	No	No	Not a formal access site.
Hormel Park	57.5	Yes	Yes – Primitive	Located between Fremont and the Platte River. Managed by Fremont Parks and Recreation.
Platte River Landing	48.5	Yes	No	It is an estimated 1/2 day canoe trip to Two Rivers SRA, or a full day trip to Louisville SRA. Managed by the P-MRNRD.
Two Rivers SRA	41	No	Yes	No concrete ramp at the river, but access to the river for canoes and kayaks exists via earthen banks. There is proposed construction of a formal boat ramp in 2015.
Schramm Park SRA	22	Yes	No	A concrete boat ramp exists but due to lack of maintenance is not usable as a formal ramp. The ramp is used to launch canoes and kayaks. Signage is also poor.
Louisville SRA	17.5	No	Yes	No formal access to the Platte River, but depending on water levels paddle craft access exists during certain of times year. NGPC is considering adding more formal launch sites, including a concrete ramp on the east end of the recreation area and paddle access on the west end.
Highway 50	16.25	Yes	No	Located on the north side of the river across on the west side of highway. There is a parking lot and access to nearby MoPac trail.
Schilling WMA	0	Yes (Missouri River only)	Yes – Primitive	A boat dock existing in this area along the Missouri River but not the Platte River. The boat launch on the Missouri River is concrete, but due to faster and more turbulent currents this is less attractive as a launch or take-out site for paddle craft enthusiasts coming off the Platte River. No open fires. No Platte River access exists.

In addition to sites along the Platte River there are three existing access sites on the Elkhorn River (see Table 8) and on Salt Creek (see Table 9). These sites could be incorporated into new water trails. Figure 9 shows the Platte River, Elkhorn River, and Salt Creek sites along with the proposed Platte River canoe trail in the NGPC Trails Plan.

Table 8. Elkhorn River Boat Ramp and Paddle Craft Access Sites

Elkhorn River Sites	Approximate distance from nearest upstream boat ramp (miles)	Concrete Boat Ramp (Y/N)	Camping (Y/N)	Comments
Elkhorn Crossing	N/A	Yes	Yes	This site is one of three canoe access parks owned by the P-MRNRD on the Elkhorn River.
West Maple Road Site	8	Yes	No	This site is one of three canoe access parks owned by the P-MRNRD on the Elkhorn River.
Graske Crossing	2.5	Yes	No	This site is one of three canoe access parks owned by the P-MRNRD on the Elkhorn River.

Table 9. Salt Creek Boat Ramp and Paddle Craft Access Sites

Salt Creek Access Sites	Approximate distance from nearest upstream boat ramp (miles)	Concrete Boat Ramp (Y/N)	Camping (Y/N)	Comments
Catfish Run WMA	N/A	No	No	No formal boat ramp exists but this site does serve as an access point for canoes and kayaks.

Estimated float times from the North Bend access site are shown in Table 10. Total estimated float time from Highway 79 to Schilling WMA is 102 hours, or 4.25 days. This water trail lacks public awareness due to lack of outreach through public agencies and signage along the trail. Lack of amenities at some sites and lack of public awareness are two factors that, if addressed by this plan, could improve the usage and experience of users of this trail.

Table 10. Lower Platte River Canoe Trail Float Times

Starting Location/River Mile	Ending Location	Approximate distance (miles)	Estimated travel time* (hours)
Highway 79 (72.5)**	Hormel Park	15	5.0
Hormel Park (57.5)	Platte River Landing	9	3.0
Platte River Landing (48.5)	Two Rivers SRA	7.5	2.5
Two Rivers (41)	Schramm Park SRA	19	6.3
Schramm Park SRA (22)	Louisville SRA	4.5	1.5
Louisville SRA (17.5)	Highway 50	0.25	0.1
Highway 50 (16.25)	Schilling WMA***	16.25	5.4
Totals		56.5	18.8

*Based on estimated paddling speed of 3 mph. Paddle times will vary based on individual effort, river flow, and weather.

**Not a formal or publicly advertised access area

***River Mile 0. No formal access on Platte River at this location.

3.5.4.1 River Flow and Stage Considerations for Canoe Trails

While the lower Platte River is sustained by a relatively stable source of groundwater-fed flows originating in the Loup River basin, low water depths and river stages occur periodically in some years. The average recreation season is considered May 1 through October 31. The summer months (June through August) are drier and generally consist of lower flows due to irrigation and upstream management practices. Low flows in a braided channel such as the Platte River can make it difficult to find a continuous path through the channel deep enough to sustain a kayak or canoe without bottoming-out. Understanding the flow regime of the lower Platte River can therefore be important for recreation users who are planning single or multiday float trips.

The two primary elements that influence flows and associated stages on the lower Platte River are:

1. Flows within each watershed contributing to the lower Platte River. Hydrocycling from the Loup Canal magnifies this influence of this variable on the lower Platte River.
2. Time of travel with the contributing watersheds and with the lower Platte River watershed.

As discussed in Section 2.2, the Columbus Powerhouse is generally operated as a daily hydrocycling plant. Flow released from the powerhouse is returned to the Platte River, with discharges ranging from a minimum of about 1,000 cfs with one turbine operating to a high of about 4,800 cfs with all three turbines operating at high efficiency settings. The cycle of flow typically occurs once every 24 hours, with a discharge duration lasting anywhere from 12 to 20 hours and an accumulation cycle lasting anywhere from 4 to 12 hours, depending upon inflows into the canal system. Overall discharges from the canal back to the Platte River (including flow released from the Columbus Powerhouse) ranges from less than 100 cfs to over 6,300 cfs depending on the stage of the cycling process. Downstream of the canal on the Platte River this creates a daily cycle of peaks and troughs visible in measured hydrographs.

Because of the timing of operations at the hydrocycling facility, the cycle of peaks and troughs in the lower Platte River is fairly predictable throughout a day. Discharges (or lack thereof) from the canal affect the downstream areas as the wave of water passes through the river each day. As the peak proceeds downstream it can be measured through USGS gage station data but is also visible to the naked eye. Figure 10 shows the average 24-hour changes in water level from the 2009 recreation season at the North Bend gage. The data from 2009 represent an average annual precipitation and average annual flow year on the lower Platte River. As shown in the graphic, the water depths vary by over a foot over the course of a day. Geometry of the river channel will also affect the magnitude of change in water depth associated with hydrocycling. The river at North Bend is about 0.25 miles wide while in other areas the channel is more wide or narrow. Some of these areas of the river could experience changes in water levels twice the magnitude or more of what is observed at North Bend. Figure 11 shows the average 24-hour hydrograph from the 2009 recreation season at the North Bend gage. For reference, 2009 represents an average annual precipitation and flow year. At this location the change in flow is measured at just under 5,000 cfs in a 24-hour period. It would be important for a group of people canoeing the river, for example, to be aware of this phenomenon during a trip so they could anticipate the low flows and avoid the frustration of having to constantly portage over sandbars. More detailed information about the Loup Power District's operations around Columbus is provided in Appendix A.

In addition to hydrocycling other variables that influence flows to the Platte River include precipitation, runoff, irrigation, and domestic water use. Because of the multiple factors that can affect flows in the lower Platte River, it is useful to measure the potential for variation in flow and river stage to identify the actual variation that is seen during a range of existing lower Platte River flow conditions over the course of a season, as evident in Figure 10.

Time of travel is the second component that contributes to flow variation in the lower Platte River. The importance of time of travel of water passing through the river is illustrated in the previous example with the canoeing group. Storm events also play a role in water flow and stage. For example, the effects to flows in the lower Platte River from a storm event in the Sandhills within the Loup River watershed would not be seen until the runoff from that event travels through the Loup River watershed into the lower Platte River. The time of travel depends on the distance that runoff and resultant flow needs to travel from tributary to tributary, watershed to watershed, and to points downstream in a watershed. Time of travel is also affected by existing flows within the receiving tributaries and river systems. In the middle and lower Platte River, it is estimated that it takes approximately one day for storm flows to travel approximately 50 river miles (USACE, 2006). The time of travel for a storm event in the Loup River watershed to enter the lower Platte River is approximately 3 to 7 days. The same is true for the Elkhorn River watershed. The Salt Creek watershed, with the smallest drainage area of the contributing watersheds evaluated, is estimated to be one day from the furthest upstream point. A storm that occurs in the upper portions of the Platte River basin (in Colorado, Wyoming, or western Nebraska, for example) can take over a week to affect flows at Louisville.

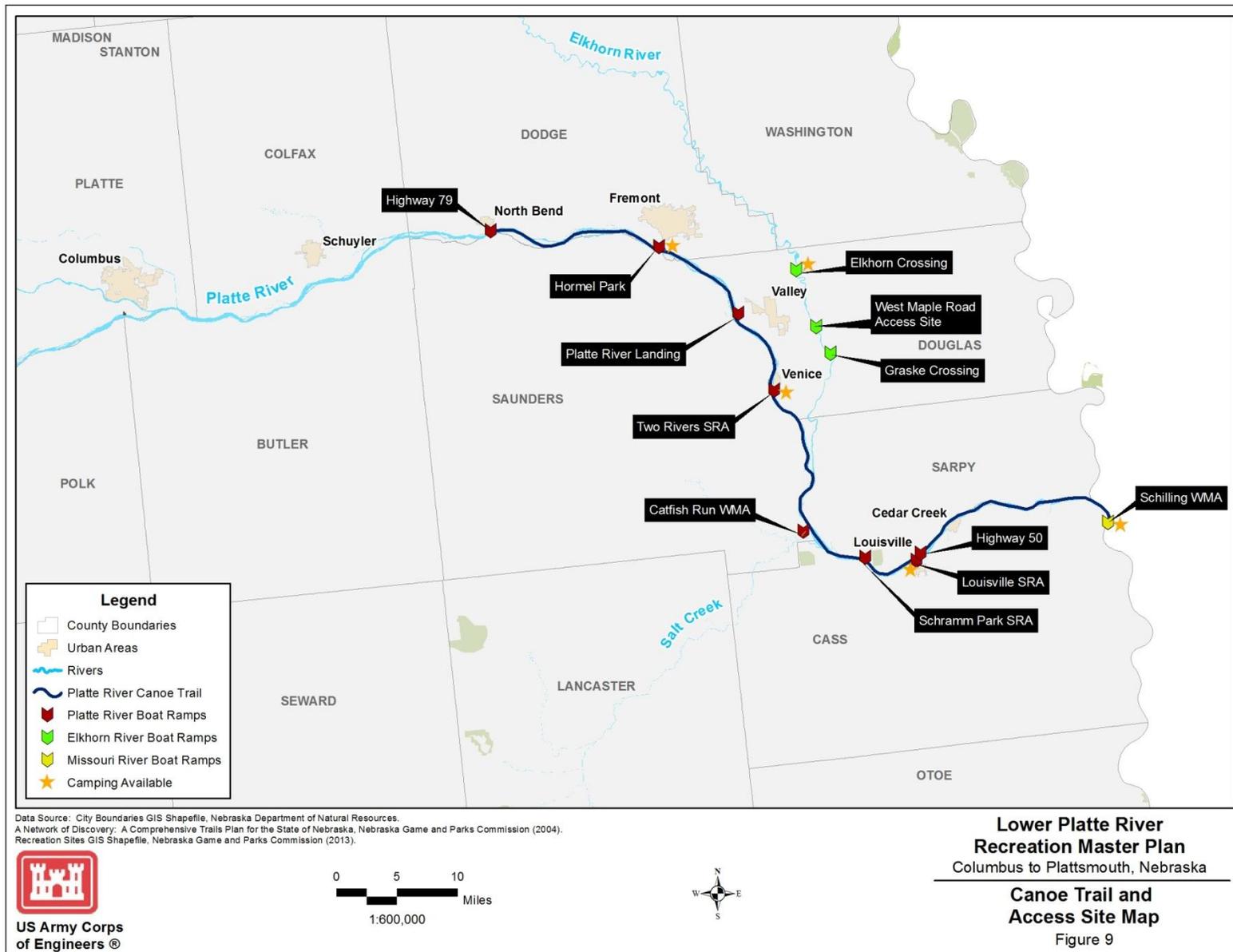


Figure 9. Canoe Trail and Access Site Map

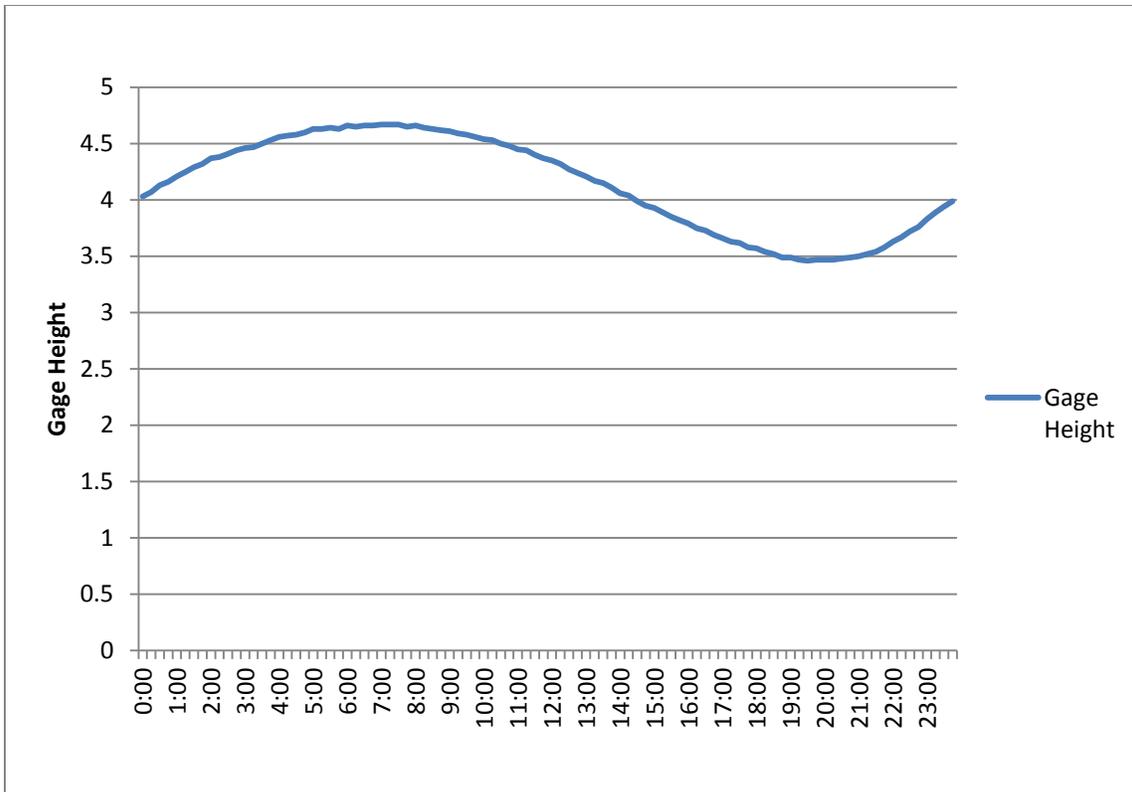


Figure 10. 24-Hour Typical Gage Height at North Bend (2009 Recreation Season Average)

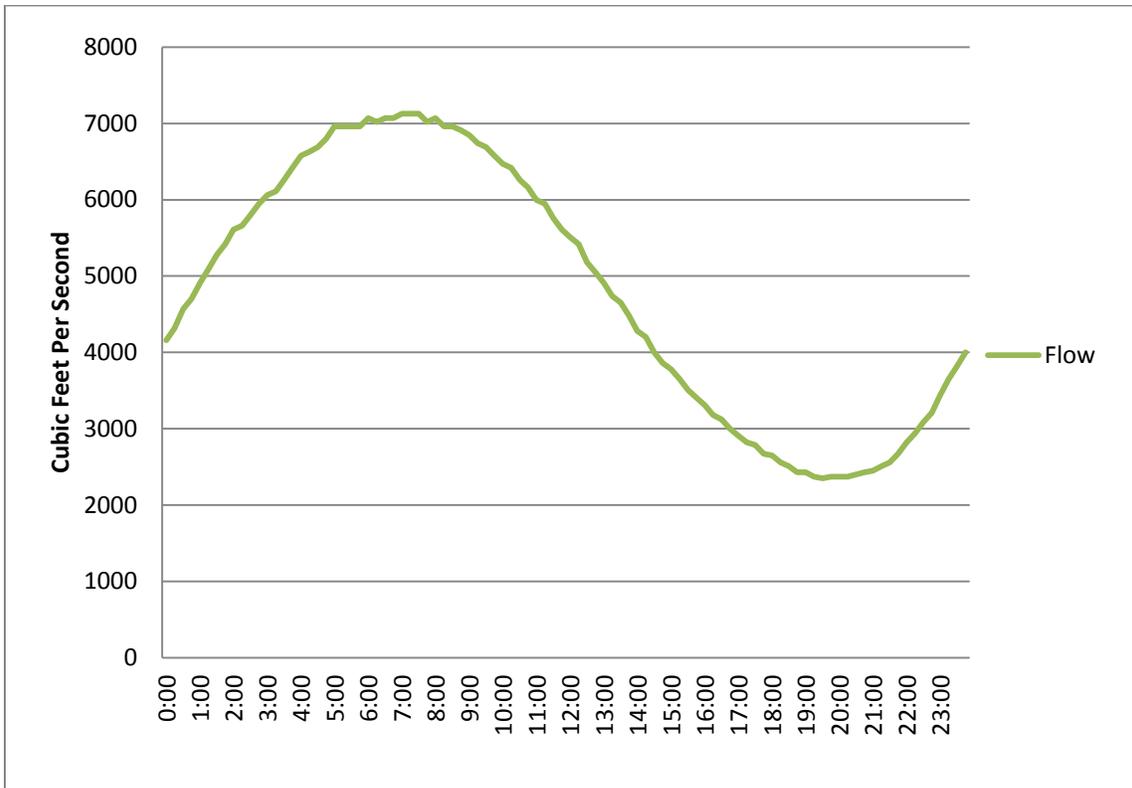


Figure 11. 24-Hour Hydrograph at North Bend (2009 Recreation Season Average)

3.6 National Historic Trails

Several National Historic Trails pass through the state of Nebraska. Two that pass through the Corridor following the lower Platte River are the Mormon Pioneer Trail and California Trail, both of which have points of entry into Nebraska through Council Bluffs. These trails generally pass through privately-owned land but are frequently paralleled by roads that have been designated and signed which provides travelers with awareness of the trail and in some cases access (NGPC, 2004). As shown on Figure 12, the Mormon Pioneer Trail and California Trail pass through Omaha then Fremont before they both follow Highway 30 on the north side of the Platte River leading into Columbus. Both trails follow the historic Lincoln Highway, known as Highway 30 in Nebraska.

California National Historic Trail

This trail was used during the 1840s and 1850s by over 250,000 gold-seekers and farmers seeking riches in the gold fields and fertile farmlands of California. This is known as the greatest mass migration in American history (National Historic Trails and Routes, National Park Service). The California National Historic Trail was designated by Congress in 1992.

Mormon Pioneer National Historic Trail

This trail was used from 1846 to 1869 by roughly 70,000 Mormons traveling along the Mormon Trail. Led by Brigham Young, these Mormons were escaping religious persecution. The route from Nauvoo, Illinois, to Salt Lake City, Utah covered about 1,300 miles and required construction of new ferries and bridges (National Historic Trails and Routes, National Park Service). The Mormon Pioneer National Historic Trail was designated by Congress in 1978.



Figure 12. National Historic Trails Map

3.7 Historic Highways

Much like historic trails, historic highways were arteries to the west that became important with the rise of the automobile. The lower Platte River corridor contains two historic highways. The Detroit-Lincoln-Denver (D-L-D) Highway and Lincoln Highway have national and local significance and could be used as an opportunity to link recreation with historical interpretation and preservation, education, and economic and community development in the lower Platte River corridor. The Nebraska State Historical Society (NSHS) has compiled a detailed history of both highways in the state of Nebraska which could be used to illustrate the story.

Detroit-Lincoln-Denver Highway

One of the first national highways was the D-L-D Highway, originally called the Omaha-Lincoln-Denver (O-L-D) Highway. It was established in 1911 by the Omaha-Denver Trans-Continental Route Association. This highway was part of a larger transcontinental highway system stretching from Boston to Los Angeles. The highway was pieced together from existing roads and physically improved largely through donations by local communities (NSHS, 2002). The highway was officially designated by 1924 as Nebraska State Highway 6, at which point the D-L-D designation slowly went away and the road was referred to by its numbered route (NSHS, 2002). By 1933 the route was designated as U.S. Highway 6.

Businesses and communities along the highway focused on ways to capitalize on tourism and economic development resulting from the newly designated route. Between Omaha and Lincoln two of the most prominent areas that served tourists at the time were Linoma Beach and the community of Greenwood, both of which were situated along the D-L-D Highway. Linoma Beach, situated on the banks of the Platte River, was a regional tourist destination built in 1924 featuring a lighthouse that served as an observation tower and filling station. Glenwood city officials invested funds to make improvements to the city park once it realized it was becoming a popular location for tourists to stop along the route (NHS, 2002).

Lincoln Highway

Lincoln Highway was a major route of national significance in the early twentieth century. Designated in Nebraska by the Lincoln Highway Association in 1913, it was intended to be a paved route that provided citizens with a major east-west highway across the country. Nebraska was in the center of the highway, with points-of-entry in Omaha in the east and Bushnell in the west. The highway was constructed by linking together a combination of existing paths along the Platte River, including the Mormon and California Trails and the Platte River Road, and the transcontinental railroad. In eastern Nebraska the highway linked the communities of Omaha, Fremont, and Columbus. The route today is known as Highway 30.

Lincoln Highway generated a great deal of enthusiasm and support in the state of Nebraska, and within the lower Platte corridor (NSHS, 2002). One example of local enthusiasm is a story involving Fremont, Nebraska. The initial attempt to create paved sections of the highway occurred through development of “seedling miles.” Seedling miles were intended to provide donations to pave one-mile segments of road along the route which would hopefully lead to further paving efforts. While many communities applied, the most impressive example nationally was construction of six miles of paved road in Fremont. This paved section constructed in 1918 was viewed locally as a major success. In addition to improving the physical condition of the Lincoln Highway and generating interest, it was the first in Nebraska to incorporate new methods of highway construction and helped to convert skeptics by demonstrating concrete as a viable material for road construction (NSHS, 2002).

Today, tourists and others following the Lincoln Highway route in eastern Nebraska are able to enjoy recreational and sight-seeing activities along the Platte River and nearby communities. For people making trips along the Lincoln Highway the Nebraska Tourism Commission promotes golfing in small

towns like North Bend, stopping over at Fremont SRA, or visiting Glur's Tavern in Columbus, which was established in 1876 and is the oldest continuously operated tavern west of the Missouri River (Nebraska Tourism Commission, Online).

3.8 Trail Town Concept and Economic Development

Developing recreation trails that connect Lower Platte Corridor communities to the Lower Platte River could provide an opportunity for communities to capitalize on their close proximity to the river while providing community and economic development opportunities. As described in the NGPC Trails Plan, trails that connect communities to recreation or attractions can help establish the town as a 'home base' for visitor services. Given the growing increase in water-based recreation, as well as plans for further developing Nebraska's State Parks that exist along the lower Platte Corridor, there is a real opportunity for community development synergies for Corridor towns that connect their recreation resources to the lower Platte River.

Although a trail itself would not generate revenue, the existence of a trail that strategically connects recreationists to community features like shops and parks can increase the opportunity for recreationists to visit and shop bringing extra dollars and tax revenues to communities. Eventually, the increased community visitors and expenditures may lead to new businesses and community enterprises developing. This phenomenon has been experienced by communities across the U.S. as cited in multiple reports. One example of a recreation trail near rural communities and a river is the Root River Trail in Southeastern Minnesota (Sjoquist, G., 2015). Pre-trail Lanesboro, was a town of about 800 residents with limited businesses and activity. Post-trail Lanesboro has 12 bed and breakfasts (with year-long waiting lists), 8 restaurants, an art gallery, a museum, and a thriving community theater. Economically speaking, the Root River Trail has been very, very good for the town of Lanesboro.

The concept of "Trail Towns" is gaining momentum as a model for economic revitalization that places trails as the centerpiece of small-town revitalization. As described by the Rails to Trails organization, Trail Towns have developed based on the well-known National Main Streets economic model, where trail users are enticed to spend time and dollars in their community. In addition, the amenity value of trails can translate into increase property values and subsequently enhanced tax revenue for communities. Numerous studies across the country have evaluated the effect of trails on property values, concluding that trails and greenway bolster community livability as well as property values. A study was completed in Omaha in 2000 to gauge the effect of the greatly expanded Omaha recreational trail system, which went from basically zero trails in 1989 to over 67 miles in 2000. The study surveyed 149 households across Omaha that were located within a block or less of a trail and found that 65 percent surveyed felt the trail's presence would have a positive effect on the sale of their home, with 42 percent expected it to increase the sale price. Of the respondents who purchased their home after the trail was constructed, 64 percent indicated that the trail had positively influenced their decision to buy.

Many state and federal agencies have developed handbooks to serve as guides and information sources for communities considering economic development related to nature-based recreation amenities. For example a handbook called "Implementing Trail-Based Economic Development Programs: A Handbook for Iowa Communities" describes the different elements that should be considered with trail development as part of a community development plan. Another information guide is "Trail Towns Capturing Trail-Based Tourism". This guide was developed for communities in Pennsylvania but has great information about assessing how a trail may fit in to overall community development goals, as well as helpful information for promoting a trail town, such as creating a trail town image or holding trail town events.

3.9 The Venture Park Program

Starting in 2015 the NGPC in partnership with the NGPC Foundation have embarked on an ambitious campaign to create a unique set of adventures at four of Nebraska's most popular parks. Mahoney State Park, Platte River State Park, Schramm SRA, and Louisville SRA are all located on the Lower Platte River and are the four parks that will make up the Venture Park system. The Venture Parks will have many different features and attractions ranging from rock climbing walls, to water parks, to zip lines, and nature centers.

Aside from the attractions a big part of the Venture Park program will be marketing these parks to the people of Nebraska and tourists throughout the United States. One of the marketing focal points will be the Platte River and how it links all four of these parks together. Programs such as canoe/kayak tours will be initiated that will get people out to the river to experience one of Nebraska's greatest natural treasures. The Venture Park Program will bring exposure and visitors to the Lower Platte River for many years to come.

3.10 Recreation in the Private Sector

In addition to the public recreation facilities and amenities throughout the lower Platte River, there are some private businesses that offer recreational opportunities or provide outfitting services. A description of some private sector recreation providers is as follows.

- Bryson's Airboat Tours in Fremont provides Platte River Airboat Tours. The tours generally begin at Bryson's facilities and extend either up river towards North Bend or down river towards Valley. Tours can last an hour or up to half a day and can vary with the number of people per tour.
- Platte River Rentals in Louisville is a family run business that has operated in Louisville since 2013. Platte River Rentals provides rental and outfitting services. Customers may rent canoes, kayaks, and tubes for use on the Platte River. Platte River Rentals will shuttle paddlers and floaters to Schramm SRA and meet paddlers at the Highway 50 boat ramp. Platte River Rentals also rents cruiser style bicycles for use at Louisville SRA or on the nearby MoPac trail.
- Uncle Scott's Outfitters provides tubing and tanking opportunities on the Elkhorn River. Uncle Scott's also provides opportunities for camping by reservation at River West Park.
- Additional businesses or organizations located in Omaha and Lincoln provide canoe or kayak rental services. Those businesses include UNL Campus Recreation, UNO Campus Recreation, and Canfields Sporting Goods in Omaha.
- There are also private camp grounds, cabin rentals and hunting areas scattered throughout the Corridor. Additionally, multiple fun runs and adventure races hosted by private businesses provide opportunities for individuals to enjoy the lower Platte River Corridor's open spaces, trails and facilities.

4.0 PUBLIC INVOLVEMENT

4.1 Process and Surveyed Population

Public opinion data were gathered for this recreation plan. A survey was developed with recreation-related questions focusing on the lower Platte River Corridor. The surveyed population consisted of people who had either bought a 2013 yearlong park pass to enter NGPC managed areas or people who were listed on existing LPRCA mailing lists. Survey participants were randomly selected from the NGPC database from people who live in the counties that fall within the study area boundary, including Platte, Colfax, Butler, Dodge, Saunders, Douglas, Sarpy, Cass, and Lancaster. Of these, Lancaster is the only county which does not share a border with the river. The LPRCA provided user lists to send the survey to, which included people from outside of the study area boundary. These user groups received an online questionnaire followed by reminders over the course of January 2014. A total of 292 surveys were received back.

Participants were asked about 20 questions and then provided the opportunity to make specific remarks. For reference and usefulness of evaluating survey data, the river was divided into four reaches and a reference map was provided along with the survey for respondents to use while answering questions. The four reaches used in the survey are the Columbus to Schuyler reach, Schuyler to Fremont reach, Fremont to Ashland reach, and Ashland to Plattsmouth reach. A copy of the reference map is provided in Appendix C.

The population surveyed consisted of people who are expected to recreate along the lower Platte River in the future. The intent of using these user groups was to narrow the survey participants to groups of known recreation users and people familiar with the lower Platte River area. As evidenced by one of the questions that participants responded to, a significant majority place importance on the lower Platte River. Based on the breakdown of responses shown in Figure 13, 86 percent of respondents agree that the river is important. In a separate question 74 percent of respondents agree that the river means a lot to them.

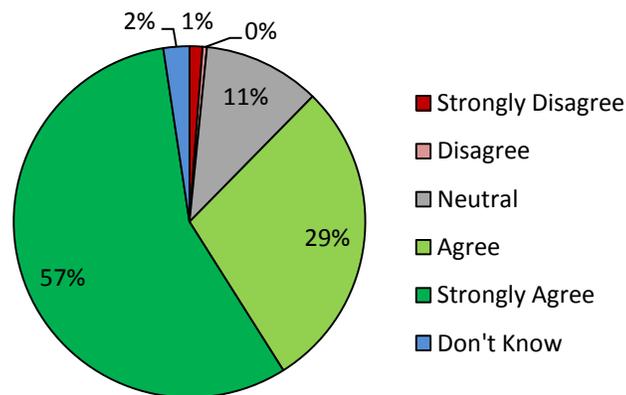


Figure 13. “The Lower Platte River is Important”

4.2 Age and Location of Respondents

A breakdown of the survey participants by age is shown in Figure 14. Survey respondents were fairly evenly distributed across increments within the 30 – 70 age range, with the most respondents falling within the 51 – 60 age range. Smaller representation of the 20 – 30 age range was present, which could

be due to fewer NGPC park passes being purchased by that demographic, conflicts related to the timing of when the survey was issued, or linked to the aging of the population within certain parts of the study area.

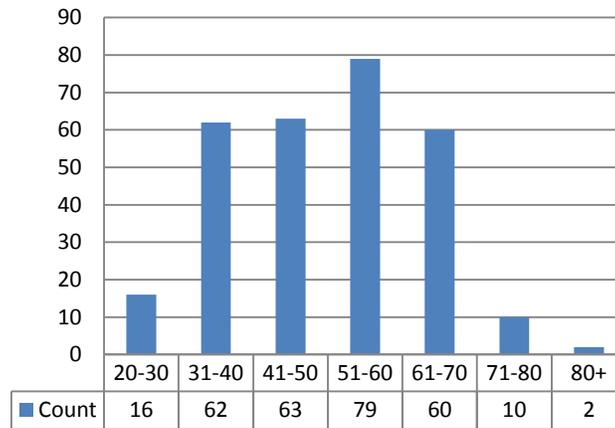


Figure 14. Age Ranges of Survey Respondents

As shown in Figure 15, of the 292 responses that were received 79 people were from Lincoln, 105 were from the Omaha metropolitan area (including Elkhorn, La Vista, Papillion, and Bellevue), and 108 were from outside of the Lincoln and Omaha areas. People who responded to the survey from areas outside of Lincoln and Omaha were from Ames, Ashland, Beatrice, Bennet, Bennington, Blair, Cedar Lakes, Clarkson, Colon, Columbus, Crete, Davey, David City, Eagle, Elmwood, Fremont, Grand Island, Gretna, Harrison, Hickman, Howells, Humphrey, Leigh, Leshara, Lindsay, Louisville, Mead, Memphis, Monroe, Morse Bluff, Murray, Nebraska City, Newman Grove, Norfolk, North Bend, North Platte, Platte Center, Plattsmouth, Prague, Raymond, Schuyler, Seward, South Bend, Springfield, Valley, Walton, Waverly, Wayne, Weeping Water, West Point, Weston, and Yutan. The one survey respondent from outside of Nebraska was from Atlanta.

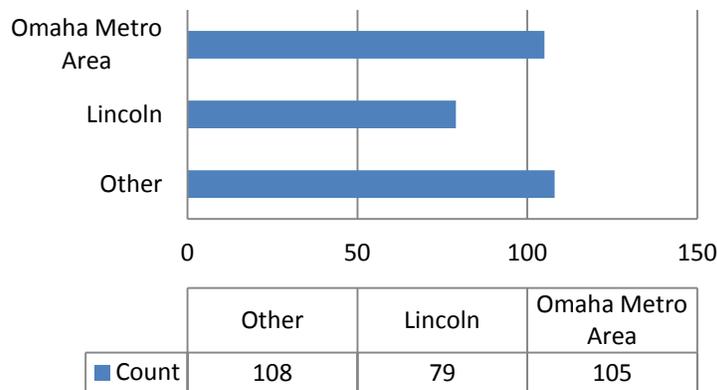


Figure 15. Location of Survey Respondents

4.3 Familiarity with the Lower Platte River

Figure 16 represents the historical length of time that all 292 respondents have spent recreating on the lower Platte River. Sixty four percent of the respondents to this survey have been recreating for more than ten years on the lower Platte River while just five percent have never recreated before. Ninety

percent have been recreating for at least one year. Based on these experiences it is safe to assume that the respondents represent an experienced group of recreation users with knowledge of the lower Platte River. This distribution of experience is fairly representative of the Omaha, Lincoln, or rest of Nebraska population segments when analyzed separately.

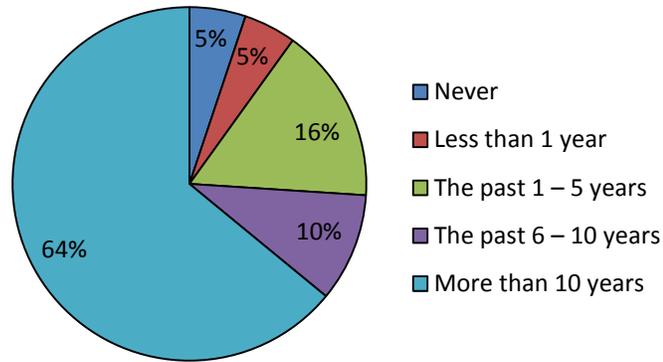


Figure 16. History Recreating on Lower Platte River

Respondents were also asked how familiar they are with each reach of the river. Reaches were divided up into the Columbus to Schuyler, Schuyler to Fremont, Fremont to Ashland, and Ashland to Plattsmouth reaches. Figures 17, 18, and 19 show the familiarity of the Omaha, Lincoln, and rest of Nebraska respondents by river reach, respectively. Notable differences in the population groups are that the Omaha area respondents have less familiarity with the westernmost Columbus to Schuyler reach and the rest of Nebraska respondents have slightly less familiarity with the Ashland to Plattsmouth reach than the other two groups.

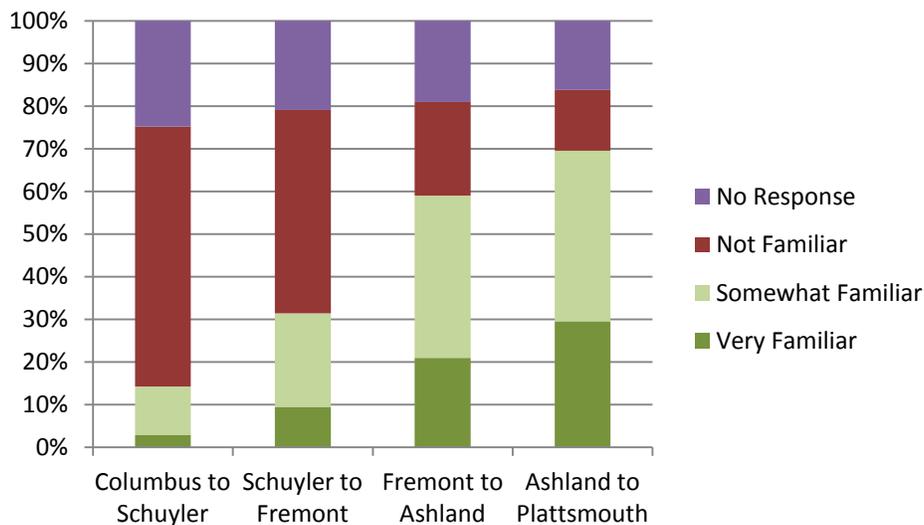


Figure 17. Omaha Area Respondents Familiarity by Reach (by %)

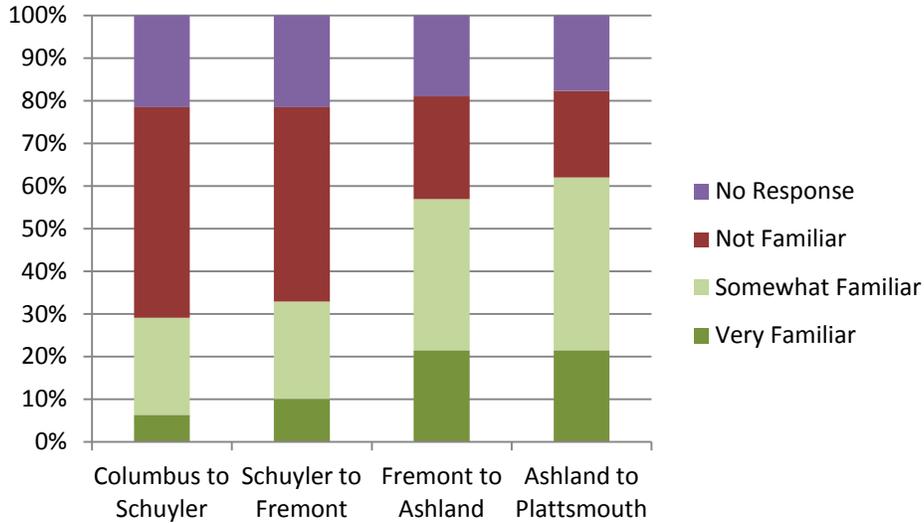


Figure 18. Lincoln Area Respondents Familiarity by Reach (by %)

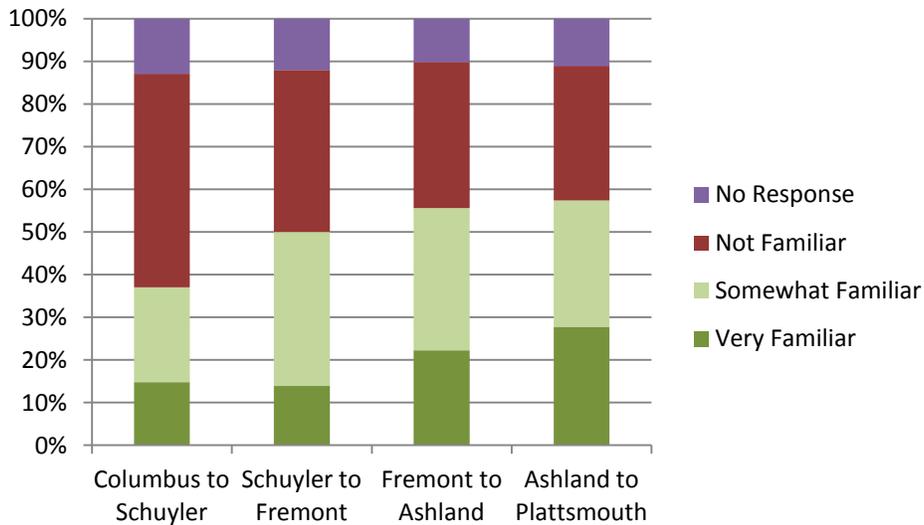


Figure 19. Rest of Nebraska Respondents Familiarity by Reach (by %)

Figure 20 shows the familiarity of all survey respondents to a selection of recreation sites across the lower Platte River corridor. The top five sites with which people are very familiar include Mahoney State Park, Platte River State Park, Louisville SRA, Two Rivers SRA, and Schramm SRA and aquarium. Respondents tend to have less familiarity with municipal parks, boat launch areas, and are generally not familiar with WMAs across the entire study area. Data for this question were also evaluated for differences between Omaha, Lincoln, and the rest of Nebraska area respondents but no major differences were apparent.

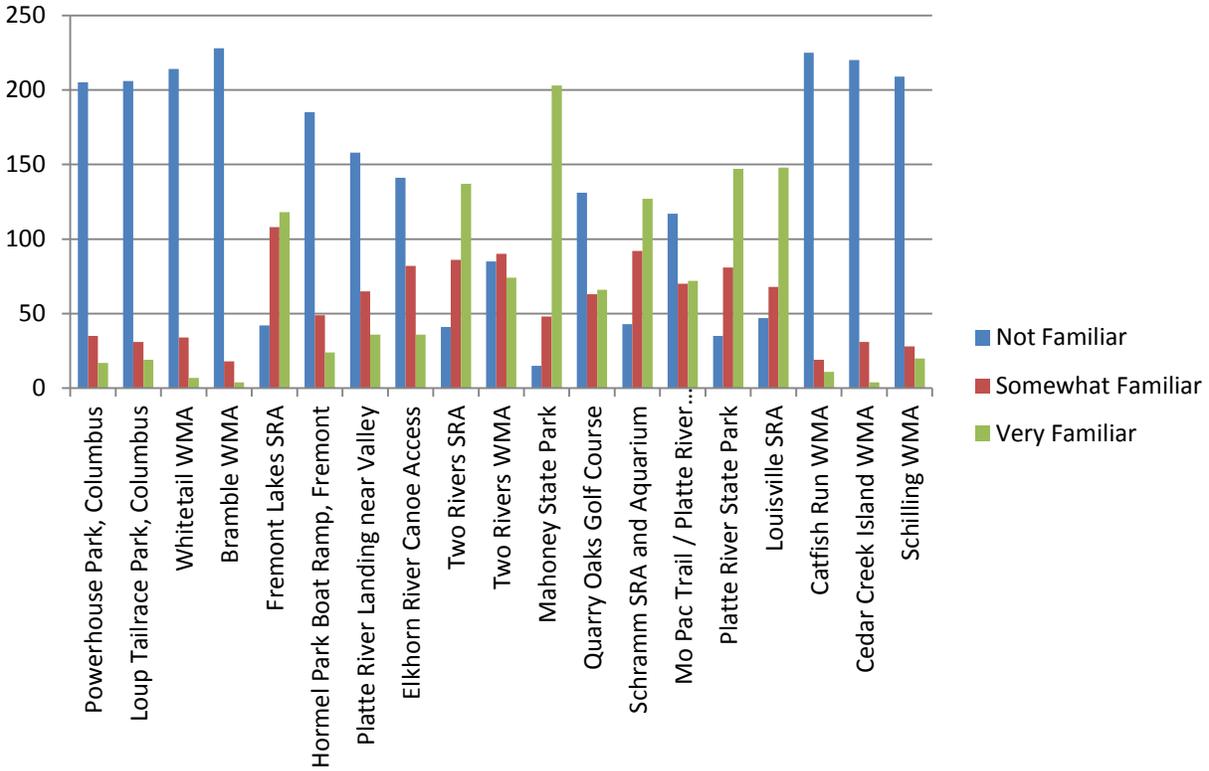


Figure 20. Familiarity with Recreation Sites (by # of respondents)

When asked which one of the reaches they visit most often, of those who responded 58 percent indicated that they visit the Ashland to Plattsmouth reach most often with only four percent indicating they visit the Columbus to Schuyler reach most often (see Figure 21).

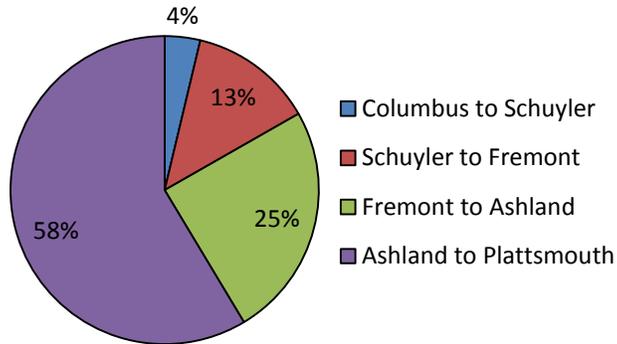


Figure 21. Respondent's Most Visited Reaches

4.4 Outdoor Recreation Activities of Interest

Tables 11 and 12 show the five most popular and five least popular outdoor recreation activities according to respondents. There were no major differences in the top five activities for people from Omaha, Lincoln, and rest of Nebraska. Figure 22 shows a summary of all the outdoor recreation activities that the

respondents participate in on the lower Platte River, within three miles of the lower Platte River, and elsewhere in Nebraska.

Table 11. Most Popular Outdoor Recreation Activities

	On the Lower Platte River (Columbus to Plattsmouth)	Within 3 miles of the Lower Platte River	Elsewhere in Nebraska
1	Sightseeing	Sightseeing	Hiking, walking, or jogging on trail
2	Hiking, walking, or jogging on trail	Hiking, walking, or jogging on trail	Sightseeing
3	Wildlife or nature observation	Camping in RV, trailer, or cabin	Camping in RV, trailer, or cabin
4	Camping in RV, trailer, or cabin	Wildlife or nature observation	Swimming
5	Picnicking	Picnicking	Fishing from shore, dock, or pier (tie)
5			Picnicking (tie)

Table 12. Least Popular Outdoor Recreation Activities

	On the Lower Platte River (Columbus to Plattsmouth)	Within 3 miles of the Lower Platte River	Elsewhere in Nebraska
1	Sail boarding or windsurfing	Sail boarding or windsurfing	Sail boarding or windsurfing
2	Jet skiing (personal watercraft)	Air boating	Air boating
3	Waterskiing or tube towing	Horseback riding on trail	Horseback riding on trail
4	Power boating	Jet skiing (personal watercraft)	Jet skiing (personal watercraft)
5	Horseback riding on trail	Floating (includes tubing and tanking)	Nature photography

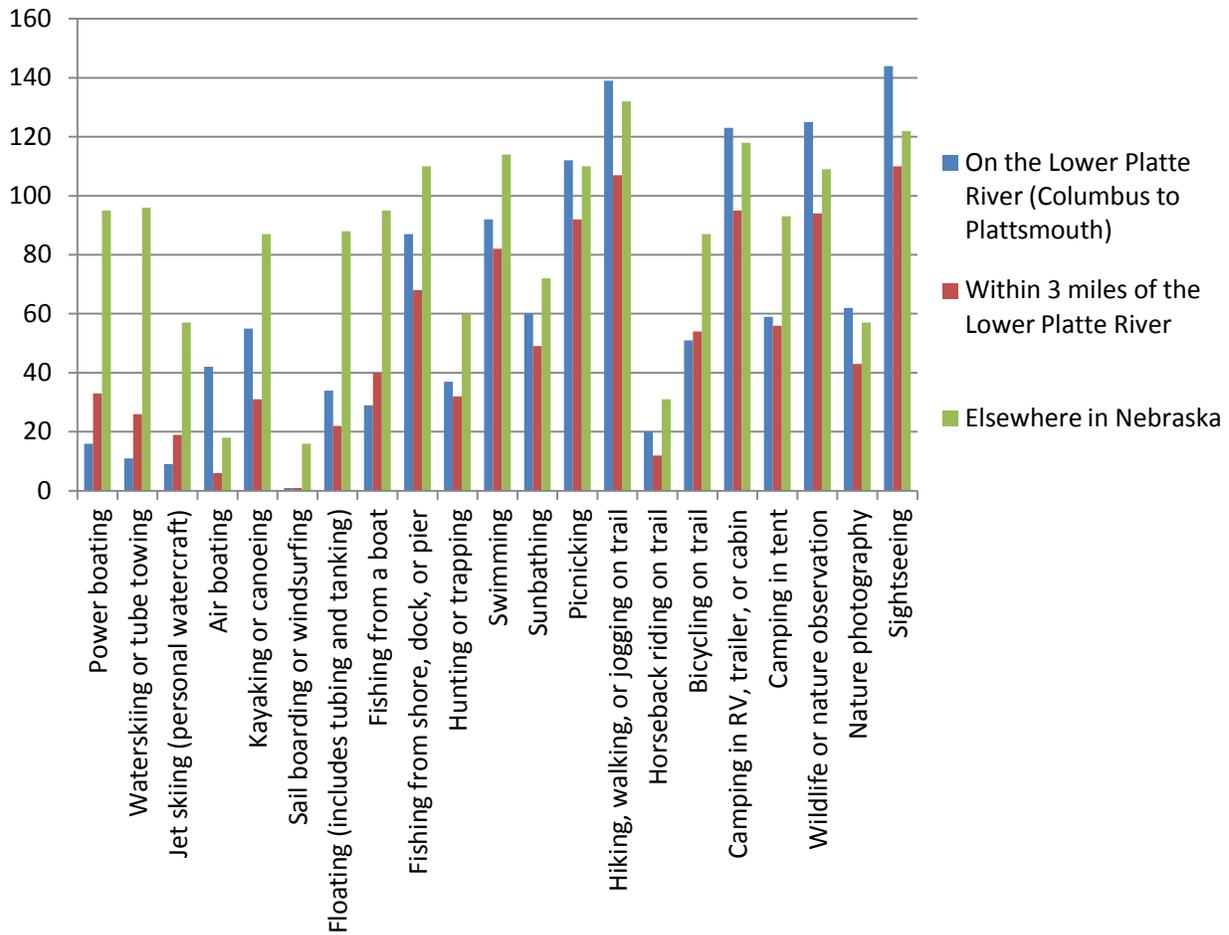


Figure 22. Summary of Outdoor Recreation Activities (by # of respondents)

4.5 Lower Platte River Perceptions

Participants were asked to describe their feelings about a variety of issues on the lower Platte River. A summary of those responses is provided in this section.

Crowded and Inviting

Figure 23 shows respondents feelings regarding whether the lower Platte River is crowded. Thirty percent of people disagree or strongly disagree that the river is crowded while 28 percent of people agree or strongly agree that the river is crowded. Figure 24 shows respondents feelings regarding whether the lower Platte River is inviting. Sixty four percent of people agree or strongly agree that the river is inviting while only six percent disagree or strongly disagree with that statement.

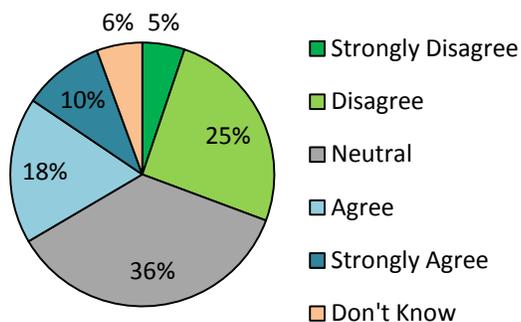


Figure 23. “The Lower Platte River is Crowded”

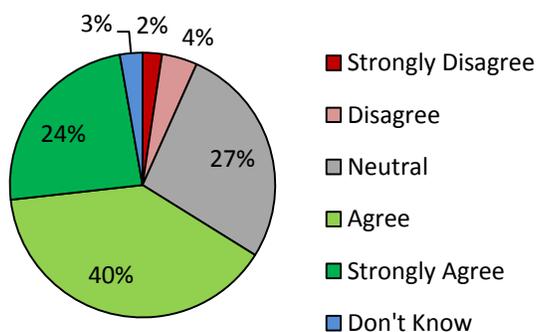


Figure 24. “The Lower Platte River is Inviting”

Water Quality

The Lower Platte River is listed as an impaired water way for e-coli, atrazine and selenium. These impairments are for aquatic life and full body contact exposure over long periods of time. The LPR also experiences periods of high nutrient concentrations largely due to agricultural practices. The LPRCA provides real time water quality data information via the internet and recently completed a Nebraska Environmental Trust sponsored project with USGS to provide correlations and thresholds for selected contaminants. This information can help recreationists know the current conditions and make decisions. The impairments do not mean that the river is not safe for recreational use, but recreationists should be aware of water quality.

Participants were asked how good they think water quality is in the river and in lakes within three miles of the river. Responses to this question are shown in Figures 25 and 26. Of people who responded to this question roughly one-third feel that water quality in both the river and lakes is good or very good and roughly one-third feel that water quality is fair. Ten percent feel that water quality is slightly bad and two percent feel that water quality is very bad in the river and 11 percent feel that water quality is slightly bad in lakes.

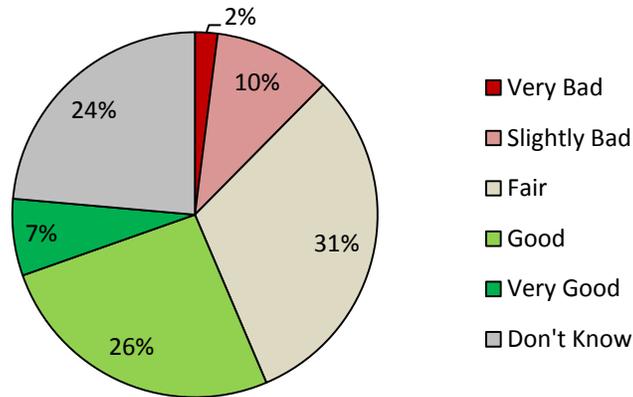


Figure 25. Water Quality Perception in the Lower Platte River

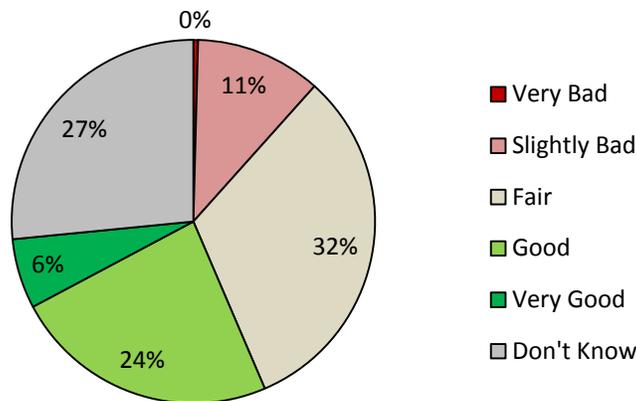


Figure 26. Water Quality Perception in Lakes within Three Miles of River

While this information could indicate that water quality perceptions would likely not deter most recreation users from the river or nearby lakes, some who feel water quality is bad have stopped using a site. Respondents who answered “slightly bad” or “very bad” to the water quality question were asked whether they have stopped using a site in the past for recreation because of the water quality and given the opportunity to provide an open-ended response if the answer was yes. Respondents who said yes and provided a response indicated the following reasons:

- Three people cited they stopped using Louisville SRA.
- Two people cited they stopped using Fremont Lakes SRA.
- One person stated that Fremont Lakes SRA is really dirty and had dead fish everywhere.
- One person cited they stopped using Victory Lake and Midland Beach Lake.
- One person cited they stopped using the Columbus Tailrace (i.e. Loup Canal).
- One person cited they stopped using the Platte River along their property.

Safety

Participants were asked how safe they think the lower Platte River is for recreation in each of the four reaches. Responses to this question are shown in Figure 27. Between 40 and 69 percent of respondents answered “don’t know” to this question among all reaches, which could indicate that they have not had issues with safety on the lower Platte River. Among those who responded with answers other than “don’t know,” a small percentage felt that the river is very dangerous or somewhat dangerous. A larger portion

of people are unsure about safety when it comes to recreation at the western half of the lower Platte River area possibly due to a lack of familiarity.

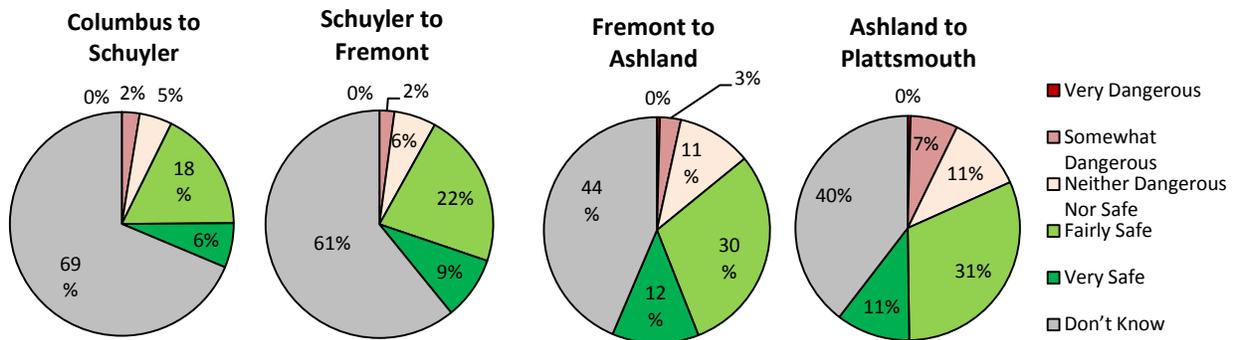


Figure 27. General Safety of the Lower Platte River

Erosion

Participants were asked how serious of a problem erosion is on the river by reach. Among the reaches between 63 and 78 percent responded “don’t know,” between eight and 14 percent responded with either “not at all serious” or “slightly serious,” and between 14 and 23 percent responded with either “somewhat serious,” “quite serious,” or “extremely serious.” In the Fremont to Ashland and Ashland to Plattsmouth reaches 22 and 23 percent felt that erosion was either “somewhat serious,” “quite serious,” or “extremely serious,” respectively.

Conflicts

Participants were asked how serious they felt conflicts are between local residents and recreation users of the river. Responses did not drastically vary on a reach-by-reach basis, so all responses were tallied and the results are provided in Figure 28. Seventy nine percent of respondents indicated that they “don’t know” how serious conflicts are, which could indicate they have not personally encountered problems in the past. Sixteen percent of respondents indicated that things are either “slightly serious,” “somewhat serious,” “quite serious,” or “extremely serious.”

Participants were also asked how serious they felt conflicts are between recreation users of the river. Responses did not drastically vary on a reach-by-reach basis, so all responses were tallied and the results are provided in Figure 29. Seventy eight percent of respondents indicated that they “don’t know” how serious conflicts are, which could indicate they have not personally encountered problems in the past. Fifteen percent of respondents indicated that things are either “slightly serious,” “somewhat serious,” “quite serious,” or “extremely serious.”

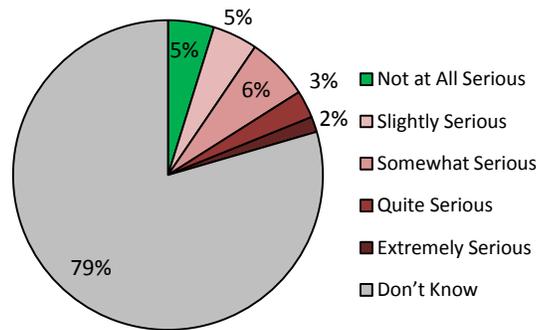


Figure 28. Conflicts with Local Residents

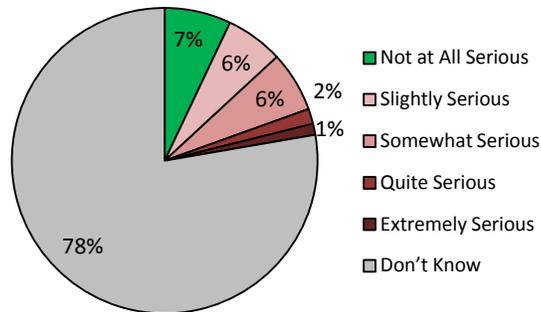


Figure 29. Conflicts among Recreation Users

4.6 Public Suggestions

Participants were offered the opportunity to make specific suggestions to improve the quality of future recreation trips to specific sites or recreation areas. Over 60 people left either suggestions or comments and some people left multiple remarks resulting in over 100 total comments received. Participants often referenced the river by reach to be consistent with the reference map provided in the online survey, but specific input was provided in relation to recreation areas in the study area as well. Camping, access, and maintenance were the top three issues mentioned by respondents, followed by development and trails-related comments. These comments and other information received from respondents are important for decision-makers to consider when evaluating recreation improvements and recommendations. A summary of comments received by category is shown in Table 13.

Comments were summarized by category shown in the table in order to capture common themes and specific locations where public suggestions were made. For reference, all comments are provided by category in Appendix C and a brief synopsis of each category is below Table 13.

Table 13. Public Suggestions and Comments by Category

Comment Type	Number of Comments Received
Camping	28
Access	22
Maintenance	21
Development	10
Trails	9
Miscellaneous	7
Fishing	6
Water Quality	5
Air Boats	3
All Terrain Vehicles	1
Total	112

Camping was the most mentioned issue by respondents by a fair margin. Common themes among the comments include adding more RV and tent sites and increased and improved electrical hookups. Louisville SRA was mentioned the most and comments were generally oriented towards increasing availability of campsites, adding running water, and improving bathrooms. Fremont Lakes SRA and Mahoney State Park were tied as the second most mentioned sites in this category and respondents expressed many of the same concerns expressed with Louisville SRA. Platte River State Park also received several comments related to a need for additional campsites. A general need was expressed for more campsites between Fremont and Plattsmouth.

Access was the second most mentioned issue by respondents. In general, recreation users want easier access and more public access to the Platte River. A common issue among multiple respondents was the need for more access points for canoes and kayaks. A variety of sites were recommended, with multiple mentions for new access points, and access points specifically for Schramm Park SRA and Schilling WMA. A need was also expressed for better information availability about facilities, access locations, and rentals.

Maintenance was the third most mentioned issue by respondents. The most mentioned maintenance topic was related to bridge piling removal. Respondents also expressed concerns with cleanliness and lack of maintenance at park facilities and signage for trails. Platte River State Park, Two Rivers SRA, Louisville SRA, the North Bend access area, and Schramm SRA were all specifically mentioned by respondents. Maintenance of a park area is a high priority for recreation users and if neglected will cause some to stop visiting a site.

The fourth most mentioned issue was related to development. These comments were generally related to either the need for more opportunities to recreate or protecting the current resources of the Platte River from adverse impacts caused by development. Development threatens recreation resource sustainability, aesthetics, and the local economy if natural resources and local industries are adversely impacted.

The fifth most mentioned issue was related to trails. Recreation users of the lower Platte River enjoy running, hiking, and equestrian trails and generally expressed a need for more and improved trails. Regional trails as well as trail improvements at Platte River State Park, Mahoney State Park, Fremont Lakes SRA, and Two Rivers SRA were mentioned.

Miscellaneous comments are comments that did not fit one of the other categories and were grouped together. A general satisfaction was expressed with Mahoney State Park including its water park and archery classes.

Fishing-related comments were generally oriented towards the need for better fishing in the area lakes. One comment expressed the respondent's enjoyment of fishing where the Loup Canal spills into the Platte River. Water quality is important for maintaining an inviting atmosphere and fisheries. Several comments were received which indicate water quality is a problem in some areas.

Airboats are popular on the lower Platte River. They are accepted and enjoyed by many recreation users of the river. Comments about airboats indicate that some users have concerns with noise and disruptions caused by their loud motors. One comment related to ATVs was received.

5.0 MASTER PLAN GOALS AND RECOMMENDATIONS

The Lower Platte River Master Plan's goals and recommendations are organized into the following themes:

1. Improve Access and Camping Opportunities for the Public
2. Use Recreation to Connect Nebraskan's with the River
3. Improve Maintenance at Existing and New Recreation Sites
4. Promote Recreation through Marketing and Public Education

5.1 Improve Access and Camping Opportunities for the Public

5.1.1 Key Findings

- Existing camping facilities in the lower Platte River Corridor contain a wide range of services for recreationists.

Along the canoe trail route there are eight public access sites where a paddle craft could be launched or taken out of the river. The eight public access sites have inconsistent levels of services for paddlers and campers. This is particularly not ideal for paddlers and users of sites along the canoe trail who are interested in longer, multiday trips that depend on certain amenities. Between Fremont and the Louisville SRA there are some good access and camping locations, however considerable improvements would make the canoe trail more attractive to the public. Existing launch sites range from being recently constructed and well maintained to improperly designed, not formalized, and poorly maintained. Some sites that provide take-out and launch services lack camp sites while others that offer camping would benefit from improvements.

- Existing camping and access sites, including along the existing canoe trail, are not uniformly distributed.

The existing canoe trail is shown beginning at North Bend and extending to the Schilling WMA boat ramp on the Missouri River for a total length of about 73 miles. Although the trail is shown beginning at North Bend, the existing trail lacks formal access upstream of Fremont. Between Columbus and Fremont there are over fifty river miles lacking formal launch sites and camping for the public. Extensions of the canoe trail in this area would require formally designated access points combined with camp sites for those using the canoe trail for longer trips.

Between Fremont and the Louisville SRA the distance between the existing access sites in this stretch of the river makes overnight trips impractical to less experienced paddle craft users. Finally, an adequate take out location is needed at the downstream end of the canoe trail. Between Highway 50 and the confluence with the Missouri River there are not access points for paddle craft users to launch or take out. The final takeout location is downstream of the confluence on the right bank of the Missouri River which is unsafe for most paddle craft users coming off the Platte.

- Improvements to river access and camping are top priorities for the public.

The public expressed significant need for better and improved access and more camping, particularly in the more populous eastern portion of the Corridor. Access and camping were the

top two issues mentioned by respondents, so these should be priority areas for improvement both within the context of and independent of the canoe trail.

- *The Venture Parks concept will increase amenities at Mahoney State Park, Platte River State Park, Schramm SRA, and Louisville SRA.*

The Venture Parks will have many different features and attractions ranging from rock climbing walls, to water parks, to zip lines, and nature centers. Aside from the attractions a big part of the Venture Park program will be marketing these parks to the people of Nebraska and tourists throughout the United States. One of the marketing focal points will be the Platte River and how it links all four of these parks together. Programs such as canoe/kayak tours will be initiated that could benefit from improved camping and access.

5.1.2 Recommendations

Goal: Contribute to development of the canoe trail by providing upstream access and amenities for the public focusing on the Columbus to Fremont reach.

Strategies:

1. Provide public access sites and camping facilities at existing parks and through development of new sites along the upper-third of the river by working with county, municipal, private, and public entities. These facilities would allow for formal extension of the current canoe trail to the upper third of the lower Platte River. Some areas, such as Powerhouse Park near Columbus, contain facilities while between Columbus and Fremont there is a significant gap in access that needs to be filled.

Coordination with Loup Power District and/or the city of Columbus could provide potential access to the Platte River. Additionally there has been a recent announcement regarding the potential for Tailrace Park to be developed into a Whitewater Park. While this would not provide direct recreation access to the Platte River it does demonstrate strong interest in developing recreational resources and coordination with this proposal should occur.

2. Explore adding access and camp sites at or adjacent to Flat Water Landing WMA in Columbus and Whitetail State WMA south of Schuyler through working with the NGPC. These facilities would allow for extension of the current canoe trail to the upper third of the lower Platte River. Coordinate with the city of North Bend, NRDs, and Nebraska Airboat association regarding the possibility of formalizing the access area at Highway 79.
3. Explore additional access site locations through coordination with the Nebraska Department of Natural Resources which identifies flood prone areas where recreation can be a desirable land use.
4. Coordinate with the Nebraska Land Trust and other organizations that may be pursuing conservation easements or conservation properties where small scale public access facilities could be included as an allowable land use within the easement.
5. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Service as well as other methods of engagement

Goal: Contribute to development of the canoe trail by providing access and amenities for the public focusing on the Fremont to Louisville reach.

Strategies:

1. Provide camping improvements at Hormel Park near Fremont. Coordinate with the city of Fremont regarding proposed camping and park improvements.
2. Provide improvements for access at Two Rivers SRA. Proposed access would include a paddle access point as well as emergency motorized boat ramp that may also be open for public through special arrangements or events..
3. Explore adding primitive group camping at Platte River Landing.
4. Explore adding primitive group camping at Graske Crossing.
5. Explore adding new access and camping sites near the Western Sarpy Clear Creek environmental mitigation site owned by the P-MRNRD.
6. Coordinate with sand and gravel mining operations to identify potential mining areas that may be reaching end of life and could be developed into access and/or other recreational opportunities.
7. Improve access for paddle craft at Catfish Run WMA upstream of the confluence with the Platte River. Coordinate with the community of Ashland for other potential access sites on Salt Creek.
8. Remove the existing asphalt and concrete from Schramm SRA and improve the safety and design of the site. Explore adding primitive tent camping at this park for canoe trail users.
9. Explore NGPC proposed idea to provide access to the Platte River at Decker Creek in Platte River State Park.
10. Explore potential access on Nebraska Land Trust property for the public.
11. Provide a formal approach and launch site for paddle craft at Louisville SRA.
12. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Services as well as other methods of engagement

Goal: Contribute to development of the canoe trail by providing access and amenities for the public focusing on the Louisville to Missouri River reach.

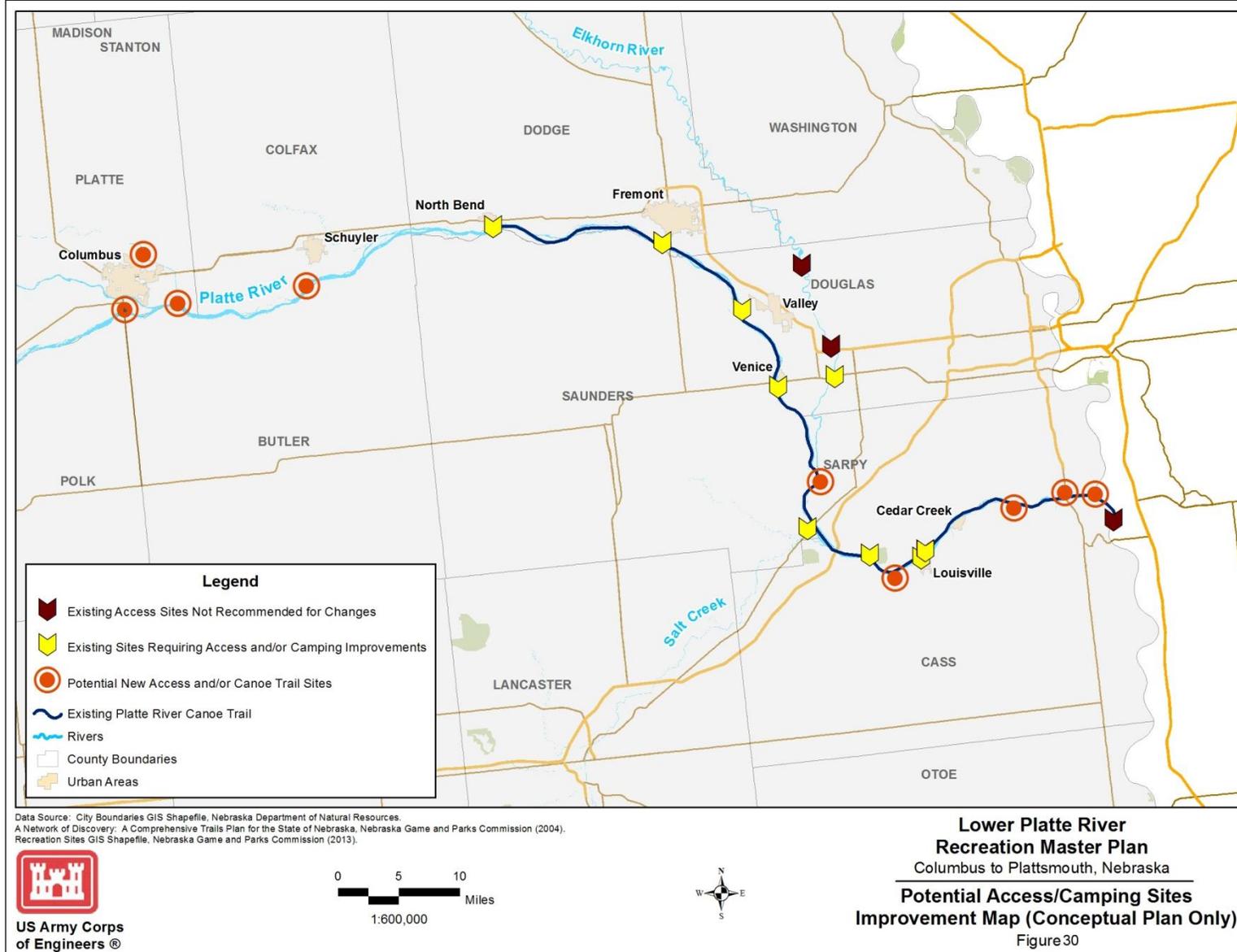
Strategies:

1. Locate an adequate takeout point serve as a stopping point for the canoe trail. A major need is to find an adequate takeout point on the Platte River that can serve as the final destination for canoe trail users. Currently there is no access between Highway 50 and the Missouri River and the boat ramp on the Missouri River is inadequate for canoe trail users.

2. Explore adding access and camp sites at or near Cedar Creek in Cass County. The site is owned and operated by the NGPC. Adding a formal take-out and launch site at this WMA would provide a safe ending point and/or add additional access on the canoe trail in this stretch of the river.
3. Explore adding access at or near the Highway 75 bridge on the west side of Plattsmouth, NE.
4. Explore adding access and camping sites at the confluence of the Platte and Missouri Rivers on the north side (left bank of the Platte River). Coordination with the city of Bellevue, P-MRNRD and private business would need to be done.
5. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Services as well as other methods of engagement.
6. Utilize the Venture Parks concept as a means to improve access and camping at area NGPC parks where possible.

See Figure 30 for a map of potential new camping and/or access sites as well as potential improvements to existing sites.

Figure 30. Potential Access/Camping Sites Improvement Map



Goal: Utilize state of the art take-out and launch designs for redeveloped and newly constructed paddle craft sites.

Strategies:

1. Work with municipal, local, state, and federal agencies to identify the appropriate design to be used to update and construct paddle craft access sites on the lower Platte River. This will provide a level of consistency in the canoe trail and promote safety for people with various levels of experience.
2. Utilize National Park Service Technical Assistance programs to help design launch locations and supporting resources/facilities. Incorporate conservation planning within the design process.

5.2 Use Recreation to Connect Nebraskan's with the River

5.2.1 Key Findings

- *There are over ten communities in the vicinity of the five mile wide corridor with relatively no trail connections to the river.*
Most of these communities are neither connected to the lower Platte River nor to any existing recreation sites along the river (such as NRD-owned access sites and NGPC parks) via trail. The Western Douglas County Trail System is one partially finished trail that connects western Omaha to Waterloo with future plans for connections with Valley and the river.
- *Residents of Lincoln and Omaha are interested in recreating on the lower Platte River.*
As the two largest cities in the state, these population centers provide a huge opportunity for increasing usage of the lower Platte as a recreational resource.
- *The geographic extent of the river creates significant opportunity for partnerships, but also implementation challenges.*
Because the study area encompasses multiple constituencies, a challenge for future trail development will be working across inter-governmental boundaries and with private landowners to find ways that improve recreation both locally and regionally. The MoPac Trail is a good example of support for local and regional trails, but also illustrates the challenges in quickly implementing a large-scale regional recreation project. The mostly rural trail is finished except for about a ten mile rural stretch on the south side of the Platte River. In addition to bridging the river and connecting Lincoln and Omaha it passes through Springfield and near the village of South Bend.
- *There is public demand for more trail access to the lower Platte River.*
Recreational trails that connect population centers to the river, parks, and other trail systems would be well-received by the public.
- *Trails that strategically connect recreationists to community features like shops and parks can spur economic activity.*
Trails increase the opportunity for recreationists to shop, exercise, and recreate if they are visiting an area overnight, which brings extra dollars and tax revenues to communities and they may increase real estate values when located near homes and businesses. Eventually, the increased

community visitors and expenditures may lead to new business or recreation events, such as trail runs.

- *The Venture Parks concept will increase amenities at Mahoney State Park, Platte River State Park, Schramm SRA, and Louisville SRA.*

The Venture Parks will have many different features and attractions ranging from rock climbing walls, to water parks, to zip lines, and nature centers. Aside from the attractions a big part of the Venture Park program will be marketing these parks to the people of Nebraska and tourists throughout the United States. One of the marketing focal points will be the Platte River and how it links all four of these parks together. Programs such as canoe/kayak tours will be initiated that will get people out to the river to experience one of Nebraska's greatest natural treasures.

5.2.2 Recommendations

Goal: Utilize the “Trail Town” concept to develop connector trails that link towns and cities to the river.

Strategies:

1. Collaborate with relevant stakeholders (municipalities, counties, resource agencies, and the state of Nebraska) to identify alternative trail corridors from towns to the river. Where possible obtain necessary real estate and right-of-way and identify sources of trail construction funds.
2. Utilize connector trails with existing and new recreation sites within the Corridor. The city of Fremont is planning to develop a connector trail that would connect existing city trails with the Fremont Lakes SRA and Hormel Park along the Platte River. Additional trail development within Hormel Park would serve as an attractive opportunity for overnight water trail users that would be utilizing proposed improved camping resources. The city of Fremont and the LPRCA have also discussed the development of a Platte River Nature Center at Hormel Park. An integrated development like this could be used as an example for other communities. These concepts are recommended for further development and implementation.
3. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Services as well as other methods of engagement
4. Focus on cities in the Corridor, shorter trail lengths, and public lands in order to minimize implementation times.
5. Incorporate the Venture Park concept into the planning and implementation efforts of the LPRCA and other entities.

Figures 31 and 32 show concept Trail Town plans for the city of Gretna and North Bend, respectively.

Figure 31. Concept Trail Town Map (Gretna)

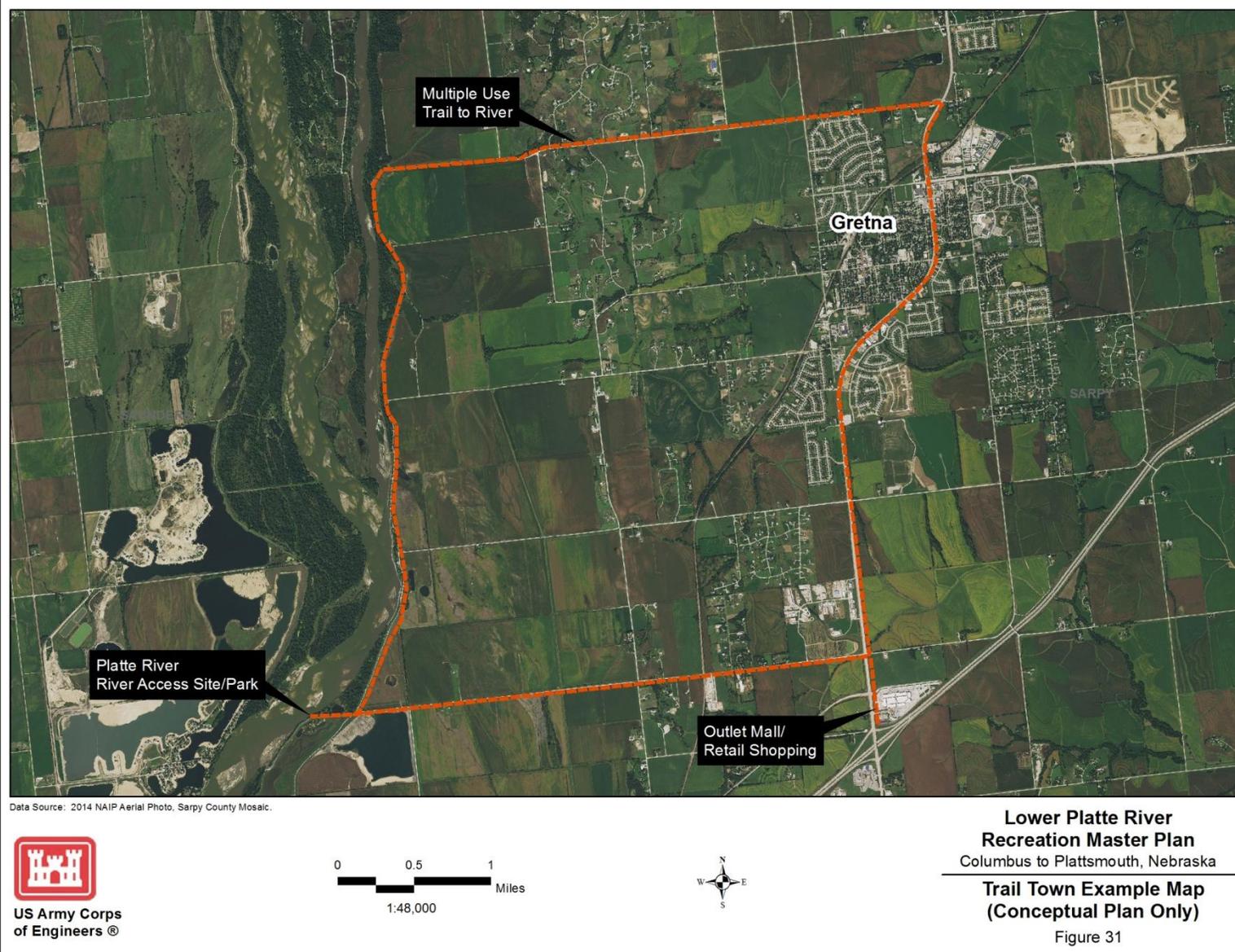


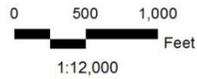
Figure 32. Concept Trail Town Map (North Bend)



Data Source: 2014 NAIP Aerial Photo, Sarpy County Mosaic.



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**Lower Platte River
Recreation Master Plan**
Columbus to Plattsmouth, Nebraska

**Trail Town Example Map
(Conceptual Plan Only)**

Figure 32

Goal: Develop a collaborative “Water Trail Partnership” to champion the improvements to the trail.

Strategies:

1. Identify the core group of public and private entities who will support expansion, upkeep, and marketing of the resource to the public.
2. Develop a marketing strategy to inform the public about the availability and features of the trail to the public. Develop a website with a comprehensive overview of the canoe trail.
3. Focus on shared responsibility for maintaining the existing recreation sites along the trail.
4. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Services as well as other methods of engagement

Goal: Identify sources of funds for trails.

Strategies:

1. Work with municipalities, local, state and federal agencies to identify potential funding sources. Examples of state and federal agencies to coordinate include the Nebraska Department of Tourism, Nebraska Department of Economic Development, NGPC, Nebraska Environmental Trust, National Park Service and others.
2. Utilize the Lower Platte River Recreation Advisory Group or Water Trail Partnership Idea to assist with identifying organizations, grants, or private individuals that could support the implementation of improved river access, trail connections and facility development.
3. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Services as well as other methods of engagement

5.3 Improve Maintenance at Existing and New Recreation Sites

5.3.1 Key Findings

- Inter-governmental operation and maintenance agreements are effective and efficient uses of public funds.
There are good examples in the Corridor of agreements between public entities to operate and maintain recreation facilities that could be used as a model for future agreements.
- Existing recreation sites owned by the NGPC are not always properly maintained.
As shown by the public opinion survey, the public considers the lack of maintenance at places like Louisville SRA and Platte River State Park to be something that needs fixed.

5.3.2 Recommendations

Goal: Improve maintenance operations at existing recreation sites.

Strategies:

1. Support NGPC, NRD, and municipal efforts to obtain and utilized funding to continue to address maintenance issues.
2. Explore opportunities for inter-governmental partnerships to assist with major maintenance issues at existing recreation sites that are proposed for improvements or expansions.
3. Utilize the Lower Platte River Recreation Advisory Group or Water Trail Partnership Idea to assist with identifying organizations, grants, or private individuals that could support the implementation of improved river access, trail connections and facility development.
4. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Service as well as other methods of engagement

Goal: Develop a plan with a regular maintenance schedule for regional recreation systems that cross jurisdictional boundaries.

Strategies:

1. Collaborate with local stakeholders to identify roles and responsibilities for maintaining the canoe trail access sites and associated camping facilities where needed. Formalize maintenance plans and agreements.
2. Collaborate with local stakeholders to identify roles and responsibilities for maintaining the trail corridors that are associated with the “Trail Towns” concept where needed. Formalize maintenance plans and agreements.
3. Seek creative avenues for funding operation, maintenance, and repairs that establishes long-term funding sources.

5.4 Promote Recreation through Marketing and Public Education

5.4.1 Key Findings

- Currently there is not a unified recreation marketing message among local, state, and federal agencies regarding recreation opportunities along the lower Platte River. Recreational opportunities from the public sector are currently being provided in the corridor by a combination of primarily municipalities, NRDs, and the NGPC. While these recreation providers have a history of promoting their respective agency’s recreation opportunities there is room to improve the inter-governmental messaging in ways that would benefit the Corridor and the public.

- Currently there is little collaboration between public sector recreation providers and private industry.
The private sector has recently been growing its business volume along the Corridor. There is little collaboration or partnership between the public sector recreation providers and these private sector businesses.
- There is good information available to the public but certain aspects of the recreation potential of the river are not available to the public.
The NGPC, P-MRNRD, and LPSNRD all have websites that contain information regarding recreation and facilities in the vicinity of the river. There is not a one-stop source of recreation information for the lower Platte River and some recreation activities, such as the canoe trail, are virtually not discussed in any medium. Discussion should include suggested trips, water levels to be aware of, links to websites with current stage and discharge information, and anything else deemed relevant to the recreating public.

5.4.2 Recommendations

Goal: Create a comprehensive recreation “message” and educational resources for the lower Platte River that may be used by agencies across the entire Corridor to promote recreation.

Strategies:

1. Develop a unified recreation message for the Corridor. This includes increased coordination with the NGPC on their proposed Venture Park and “Platte Valley Playground”. Develop a consistent message regarding lower Platte River recreation opportunities and framework for delivering that message.
2. Identify and utilize resources within the LPRCA that can produce brochures, central website location for local, state and federal recreational resources. Use these medium to provide previously unavailable recreation information to the public, such as suggested trips, water levels to be aware of, or links to websites with current stage and discharge information.
3. Utilized the National Park Service Technical Assistance program to help define a marketing strategy and appropriate multi-media approach for development of educational resources
4. Develop a mobile application that could include data such as current lower Platte River flows, real-time water quality information, time of travel, weather, links to nearby services and/or outfitters and other information about the lower Platte River.
5. Develop and display a list of private businesses that provide recreation rentals or outfitters.
6. Develop and display a list of recreation-based public events that occur throughout the Corridor.
7. Utilize existing and new LPRCA kiosks to educate people about the recreation resources within the lower Platte River. Kiosks could include static information as well as an opportunity for visitors to utilize their smart phones or other mobile devices to have an interactive electronic experience. Examples could include a location for them to take pictures and upload via QR code

to the LPRCA or our partners to tell us about their experience. This would also allow a collection of images to be utilized for additional marketing or as part of other on-going efforts.

8. Coordinate with the Platte Basin Timelapse and other entities to help “characterize” the unique resources of the lower Platte River and unique recreation opportunities through time.
9. Ensure that recreationists are educated about the diverse resources of the lower Platte River. This should include topics such as threatened and endangered species to minimize conflict with species utilizing the lower Platte River for critical habitat. Education should also be given on water quality issues as well as floodplain management.
10. Develop educational resources that incorporate conservation planning into recreational sites.
11. Incorporate input received from the public through public meetings, additional public surveys done in coordination with NGPC and the National Park Service as well as other methods of engagement

5.5 Priority Recommendations

In no particular order, these are the five prioritized recommendations as of July, 2015. The LPRCA will work with local stakeholders throughout the Corridor on recommendations in this plan, but is placing emphasis on these five in order to focus efforts.

- Use access points to provide upstream linkages (Columbus, North Bend) and downstream end point(s) (downstream of Highway 50).
- Initiate and complete relevant improvements to access at Two Rivers State Recreation Area, Schramm SRA, and Louisville (WMA and SRA).
- Initiate and complete improvements at Catfish Run or another access site on/near Salt Confluence
- Development of primitive camping and basic services at certain existing sites.
- Education will be focused on through application development, engagement, and coordination with Platte Valley Venture Park idea.

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