

LPRCA Briefs

Assistant Secretary of the Army tours the Lower Platte River

On September 2, 2011 representatives of the LPRCA and the Army Corps of Engineers provided an airboat tour of a portion of the lower Platte River for Assistant Secretary of the Army JoEllen Darcy. Representatives Jeff Fortenberry & Lee Terry joined portions of the tour as did staff for Senators Ben Nelson and Mike Johanns. The tour began at Two Rivers State Recreation Area where we were lucky enough to watch a bald eagle catch its breakfast. A stop was made at Camp Ashland for a discussion of the Western Sarpy-Clear Creek Levee project. The tour continued on down river past the Lied Pedestrian Bridge before arriving at Louisville. It was a great day and an honor to have the Assistant Secretary on the Platte!

This Issue's Lower Platte River Featured Photo:



“River Watching”
(photo by Heidi Christensen)

LPRCA Kiosk Installations

The LPRCA has installed nine kiosks throughout the Lower Platte River Corridor. A tenth is planned for Schilling Wildlife Management Area. We are very excited to display the kiosks so visitors can learn about the important resources of the lower Platte River and the importance of protecting this unique environment. Look for the LPRCA kiosks in local state parks, wildlife management areas, and at other key Platte River-viewing attractions. You can also view a map of the kiosk locations on our website: lowerplatte.org.



Above: Kiosk located on the Lied Platte River Bridge.
Top Right: Kiosk near the tower at Mahoney State Park.

Upcoming LPRCA Events in 2012

July 17th: Lower Platte River Kayak Tour

August 30th: LPRCA Water Quality Open

October: LPRCA Lower Platte River Summit

Check www.lowerplatte.org for updates about events and meetings

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PLATTE RIVER

Winter/Spring 2012

update



Lower Platte River
CORRIDOR ALLIANCE

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Lower Platte.

Biannual Newsletter
of the Lower Platte
River Corridor Alliance

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NE Dept of Environmental Quality
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Conservation &
Survey Division,
UNL School of Natural Resources
Water Center



From the Coordinator

Many people often overlook the wealth of unique resources surrounding them as they travel along the lower Platte River. The lower Platte River is home to 48 different fish species including the endangered pallid sturgeon, multiple species of shorebirds and waterfowl including bald eagles, the endangered interior least tern, and the threatened piping plover. Remnants of oak-hickory forests that blanket the river's bluffs provide habitat to a variety of wildlife and also scenic viewsheds. The lower Platte River is also home to over half of the state's population who are dependent upon the Platte River aquifer for their water supply. The importance of the lower Platte River to people both now and in the past is evident through the prime agricultural land surrounding the river, sand and gravel mining, 5 of the top tourism attractions in the state, and multiple historic farmsteads and Native American sites.

The mission of the Lower Platte River Corridor Alliance (LPRCA) is to "foster the development and implementation of locally drawn strategies, actions and practices to protect, enhance and restore the vitality of the river's resources." Communication and collaboration are the two most vital methods of the LPRCA's work to sustain our mission. With that in mind, the Platte River Update will feature information about LPRCA projects and events but will also highlight the communities, counties and organizations working alongside the LPRCA. We hope that the Update will be another tool that allows us to broaden the reach of the LPRCA. We encourage new ideas for articles in future editions of the Platte River Update, so please feel free to contact me with ideas or with any questions regarding the lower Platte River and the efforts of the LPRCA!



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LPRCA Events

Lower Platte River Kayak Tour 2011



On Tuesday July 19th, 2011 roughly 30 kayak enthusiasts joined the LPRCA on a paddle down the lower Platte River from the Hormel Park boat ramp in Fremont, to Platte River Landing near Valley. Attendees met at Platte River Landing in the morning and were shuttled upstream to Hormel Park where they “put-in”. The three-hour paddle covered nine miles of the scenic, riparian ecosystem of the lower Platte River.

The event was free and attendees were provided with kayaks, paddles and life jackets. The kayakers enjoyed a mid-tour break on a Platte River sandbar, where bottled water and snacks were provided during a brief presentation discussing the endangered interior-least tern and threatened piping plover. The kayak tour concluded with a free lunch and presentations at the Platte River Landing public river access area.

Educational opportunities throughout the day included Kayaking 101, updates on LPRCA projects & programs, and brief presentations by Tim Montgomery (NGPC), Mary Bomberger Brown (Tern and Plover Partnership), Dave Sands (NE Land Trust), Alan Kolok (UNO research station), Matt Pillard (HDR) and well-known photographer Michael Forsberg who informed participants of his Platte River time-lapse project.

Registration for the 2011 tour opened June 9th and filled within 90 minutes! We were very pleased with the increase of interest this year and hope to see you on July 17th!



2011 Water Quality Open

The 14th annual LPRCA Water Quality Open Golf Tournament was held September 1st, 2011 at the Quarry Oaks Golf Course near Ashland. Thirty-six foursomes participated in the event. The tournament began with a presentation entitled, ‘Relicensing the Loup Power District Hydroelectric Project’ lead by Neal Suess, President and CEO of Loup Public Power District and Lisa Richardson, Project Manager at HDR. The 18-hole tournament kicked off with a “shotgun start” at 12:30pm and after a long, beautiful summer day of golf, participants had the chance to socialize, mingle and visit displays until the commencement of the awards dinner at the clubhouse.

This annual outdoor recreational activity offers educational opportunities by providing displays, demonstrations and environmental trivia throughout the course to raise awareness about water quality and conservation

needs along the Lower Platte River Corridor. Events like this could not take place without the generous support of our sponsors. Sponsors this year were: NEBCO

Inc., Tetra Tech, Union Bank and Trust, HDR, NARD, EA Engineering, Fleischmann Farms, JEO Consulting Group Inc., Midwest Laboratories, Midwest Row, Miller Seed Company, and Lamp Rynearson & Associates. Door prizes were donated by: Diggers Hotline, the Groundwater Foundation, LPSNRD, LPNNRD, PMRNRD, and LBNRD. We want to thank everyone that participated in, and/or contributed to this event and helped make it a success! We look forward to seeing you at the next Water Quality Open on August 30th at Quarry Oaks!



News Around the LPRCA

USGS' Hydrologic Notification System

Jason M. Lambrecht, Chief, Hydrologic Records Section, U.S. Geological Survey, Nebraska Water Science Center

The U.S. Geological Survey has developed the Hydrologic Notification System (HNS). The HNS became publicly available on May 17, 2010. This is a new water data reporting system that will send email and text notices when subscriber selected water level, stream-flow, groundwater levels, precipitation, or water-quality data thresholds or ranges at USGS real-time monitoring sites are exceeded. The HNS can be used to provide notifications for over 150 surface water, groundwater, and water-quality monitoring sites in Nebraska served by the National Water Information System Web Interface (NWIS Web), or for any USGS monitoring sites across the nation. This system can be used for emergency and flood management, drought management, fisheries, recreational boaters and other potential users, and for regulation. Subscribers can specify either hourly or daily notices. These notices can be sent to any email address and to many phone networks.

The HNS has been undergoing internal review by several hundred USGS employees as well as some recent external testing done by the U.S. Army Corps of Engineers and the National Weather Service. The HNS can be accessed through the USGS Nebraska Water Science Center webpage (<http://ne.water.usgs.gov>) or you can customize your Water Alert settings at <http://water.usgs.gov/wateralert>.

Right: Screenshot demonstrating how to subscribe to the Water Alert system. Surface water is selected on the left tool bar, followed by the site location nearest the subscriber.

Below: Water levels rise below the Hwy. 6 bridge as spring rains increase the Platte River flows.



ENWRA

Dana Divine, ENWRA Coordinator

The Eastern Nebraska Water Resources Assessment (ENWRA) has been active for five years. The ultimate goal of ENWRA is to develop a three-dimensional geologic framework and water budget for the glaciated portion of eastern Nebraska. Activities in the last year include:

hydrogeologic interpretation of Helicopter Electromagnetic (HEM) data from the Ashland pilot study site, analysis of aquifer test data collected using Logan East Rural Water System and City of Hickman wells, analysis of three geophysical methods potentially applicable in thick glacial till settings, cataloging historic files housed at the Conservation and Survey Division offices, flying a HEM survey in the Hickman-Crete and Swedeburg areas, and developing a Long Range Plan. The project continues to collect water quality, recharge, water level and geologic data. We also look forward to collecting additional geophysical data in key target areas in the future and continually work towards making study results available to stakeholders. Additional information regarding the project can be found at www.enwra.org.



Helicopter gathering Electromagnetic data

News Around the LPRCA

NLT Seeks Consensus on Land Preservation in Lower Platte Valley

Dave Sands, Nebraska Land Trust

It has been more than a decade since a vision of preservation for the “Bluffs Region” of the lower Platte Valley was articulated in a collaborative report from the Lower Platte River Corridor Alliance. Citing beauty, geology, productive farmland, and biological diversity, the report called for “a balance between economic expansion and the preservation of rural character” in this unique region below Ashland.

Supported by Cooperative Agreements with the Lower Platte South and Papio-Missouri River Natural Resources Districts, the Nebraska Land Trust (NLT) sought to sharpen the focus of this vision in 2009. Seeking consensus on the types of resources that people wanted to preserve, and on specific areas where land preservation should focus, the NLT formed the



Lower Platte Valley Conservation Working Group (LPVCWG). With representation from a variety of interests, the group provided input from diverse perspectives including Cass and Sarpy County government, conservation organizations, developers, farmers, the Nebraska State Historical Society, recreation, gravel mining, and youth camps.

Initially, participants discussed the various resources that are found in the area, from oak-hickory woodlands to archeology. Based on these discussions, they identified criteria to be used in determining where land preservation would achieve the greatest benefits. Since there are limited financial resources for land preservation, the identification of Conservation Focus Areas (CFAs) aids to focus efforts to land that matters the most.

Consensus criteria for the selection of CFAs included wildlife habitat, native plant communities, the absence of habitat fragmentation, rare species, scenic views from public places, steep slopes, natural river banks, streams, and wetlands. There were cultural criteria as well, including development potential, county comprehensive plans, working farms, public attractions, and historical or archeological sites.

Based on these criteria, the NLT produced maps to identify areas where each exists. For example, scenic views from public places were mapped by assessing the views from the observation towers at Mahoney and Platte River State Parks, as well as the I-80 and Lied Bridges that cross the river. Once each criteria was mapped, a Composite Map was produced to identify “hot spots” where multiple resources overlapped.

Using this information, the group identified four areas that appeared to have the most value for conservation. In mid-October, a tour was arranged to “ground truth” impressions of these areas. Ultimately, the group agreed that in addition to the Schramm Bluffs (an ongoing CFA for the NLT), future land preservation in the region should focus around Mahoney State Park, Platte River State Park, Cedar Creek, and Girl Scout Camp Maha.

In 2010, the NLT contacted landowners in these areas to assess their interest in land preservation. When interested landowners are identified, individual properties will be screened and funding will be sought if needed for easement purchases. This follows a process that has already worked to preserve land near Schramm State Park. While it will still take years to realize the vision of significant land preservation in the Bluffs Region, that vision became more focused in 2009. For more information on the conservation of private land, visit the Nebraska Land Trust online at: <http://nelandtrust.org/>



LPRCA Project Updates

Lower Platte River Water Trail

Meghan Sittler, LPRCA coordinator, has recently been working with the Nebraska Game and Parks Commission (NGPC) and the National Park Service to create a water trail map, guide, and other amenities for the lower Platte River. The lower Platte River is the first river in Nebraska to be mapped in this manner and will provide a basis for the promotion and eventual inclusion of other non-motorized water trails throughout the state. When completed, the water trail maps will provide users with locations of access points, points of interest along the way, as well as multiple river mile options for trip lengths.

The purpose of the Platte River Water Trail (PRWT) program is to encourage people to get out in nature and on the river, as well as to provide education about conservation practices and preservation of the Platte River. Successive years of full registration for the LPRCA's annual kayak tour indicates a growing local interest in recreational water activities.

There are five main goals for the PWRT project: (1) update the current print materials and increase publication, (2) publish a GIS trail map, (3) create an interactive website for trip planning, (4) improve and expand available public access points, and (5) increase on-trail signage for both educational and directional purposes.

Revisions of the print material will include additional color photos, improved map formatting to highlight the river and its resources, and designated sections of the trail noting partial, single or multiple-day trips. The proposed GIS trail map will use real-time and site images to show launch sites, hazards, and points of interest and amenities. The interactive website for trip planning is based off of the Missouri National Recreational River website which provides users with contact information, camping and restroom locations, a directory indicating which entities maintain specific areas, and anecdotal notes for each site.



“The best way for the public to understand and want to protect the Platte River is for them to have first-hand experience on the river.” –Meghan Sittler, LPRCA Coordinator

Currently there are six public access points throughout the lower Platte River corridor, however a few are in poor condition. The need exists for more access points which will allow users to break, get drinking water, and use the restroom. The fifth goal is to install interpretive signage along the river, but this task will be delayed so that the information provided will reflect existing conditions at the time of installation.

During fall 2011, those working on the project completed the base-line mapping of four segments of the lower Platte River. Other progress has been made through the documentation of river-access points with GPS coordinates and the collection of photos taken from the water.

The NGPC has posted general information about the water trail and the interactive trail map is live at <http://outdoornebraska.ne.gov/gisapps/default.asp>. Please visit the interactive GIS site often for updates, as well as assistance in planning your next outdoor recreational activity.



Discover the Waters of Nebraska

Meghan Sittler, LPRCA Coordinator, assisted Project Wet and the National Drought Mitigation Center at the University of Nebraska-Lincoln in producing an educational booklet intended for students in grades 4-6.

The 24-page booklet includes fun activities that teach the readers about water conservation and uses, as well as the development of an understanding of how water, weather and climate are all related.

Free booklets are available at *Nebraska Maps and More* located in Hardin Hall, UNL East Campus. To have booklets shipped to you contact *Nebraska Maps and More* at (402) 472-3471.



LPRCA Project Updates

Environmental Suitability Assessment

The Lower Platte River Corridor Environmental Suitability Assessment (ESA) is a multi-phase effort that will develop a planning framework for responsible, consistent, and sustainable development within the Lower Platte River Corridor. This effort involves assembling environmental and natural resource related information and using it to develop tools to assist with land use decision making.

Phase I was completed in March 2006 and consisted of data identification, collection, evaluation, and organization. Data acquisition included: land-use plans, the evaluation of natural resources, water supply and wastewater management, and a determination of the existing infrastructure for the entire Lower Platte River Corridor.

Phase II: The purpose of Phase II was to assess existing natural resources and environmental features, identify environmental considerations regarding development suitability, and provide key decision making criteria for land use. As part of this phase, local stakeholders were surveyed in order to gather input and identify environmental features that affect their specific land use planning and decisions. This phase covered the area from Fremont to the lower Platte River's confluence with the Missouri River. Phase II was completed in August 2008.

Phase III: The same activities that occurred in Phase II were repeated for the lower Platte region from Columbus to Fremont during Phase III. A copy of the final report can be viewed on the LPRCA website.

In addition, a Land Suitability Analysis (LSA) model was developed in Phase III. The purpose of this model is to provide a way to identify, classify and prioritize land in order to promote sustainable land use plans and decisions for the lower Platte River. This model provides a planning tool to determine the suitability for various types of land use including recreation, water quality, land preservation and agriculture.

All of the collected data and model components of the LSA and ESA models are available on the NRD MapMaker system through an ARC GIS viewer. The viewer allows users to evaluate land use data and create printable maps for their use. The direct website address for the LSA/ESA interactive GIS program is, <http://nrdmapmaker.org/lpresa/>.

In 2012 the LPRCA and HDR Inc. will develop the predictive or "what if" component of the LSA model. Scenarios will be developed through meetings with LPRCA members and other stakeholders and will show the impact that changes in current land uses would have on water quality, recreation, wildlife habitat and agriculture.

Land Suitability Analysis

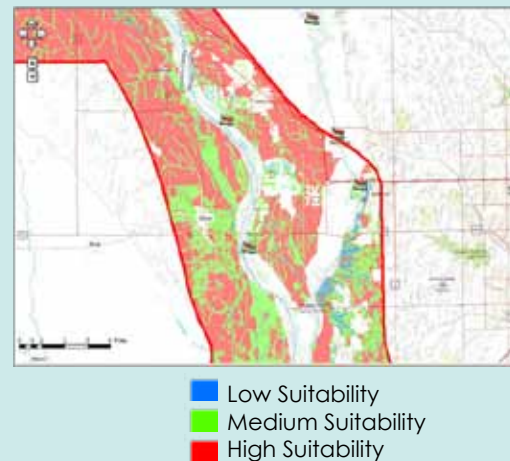
The following are example outputs of the LSA

Biologically Unique Landscapes



Areas that the NGPC has determined are a priority for conservation efforts based on the Nebraska Natural Legacy Plan. The biologically unique landscapes are relevant to the Environmental Suitability Assessment due to the presence of wildlife habitat, recreational opportunities, biodiversity, and unique landscapes.

Agricultural Land Suitability Assessment



Biologically Unique Landscapes & Agricultural LSA Overlay



The completion of Phase III will help to advance the mission of the Lower Platte River Corridor ESA which aims to provide timely and consistent planning information to corridor stakeholders.

LPRCA Project Updates

USGS Sandbar Monitoring Study

In March, the Lower Platte South Natural Resources District and USGS agreed to conduct a one year pilot sandbar monitoring study from the Salt Creek confluence to Highway 75 in partnership with the Tern & Plover Partnership and the LPRCA. Through



three separate surveys, the one-year pilot study will identify the following characteristics of sandbars on the lower Platte River: frequency/abundance, location, area, height, bank attachment, and vegetation density. In addition, time lapse cameras at various points will be used to observe more frequent changes and correlate river stages to sandbar frequency and size. Most of the data will be collected only on bars two acres or larger in size with the exception of frequency/abundance and location. Sandbars of two acres or larger are generally considered to be what is required for tern and plover nesting habitat. The initial survey was conducted following “ice-off” in April/early May, the second survey was completed during the high flow period in late June/July and the final survey was conducted at low flow this past fall, in late October/early November.

The one year pilot study will comprise a baseline data set for an expanded three year study included within a Nebraska Environmental Trust proposal. The proposal was submitted in September 2011. Additionally, this data set will help further the sediment budget analysis currently being developed as part of Phase III of the Cumulative Impact Study, as well as helping the LPRCA reach the end goal of developing a predictive model to understand how land use changes are impacting the river. Finally, the proposed work will continue to support the investigation and understanding of tern and plover habitat on the lower Platte River.



Above:Piping Plover (photo courtesy of the Nebraska Game and Parks Commission)
Left: Tern parent and chick (photo by Ben Wheeler)



News Around the LPRCA

Lower Platte Weed Management Area

The Lower Platte Weed Management Area (LPWMA) was organized in 2002 with the goal of controlling invasive species and covers ten counties within the lower Platte River drainage system. The LPWMA provides awareness and assistance to landowners facing problems with non-native plant invasions.

In 2009, the LPWMA reached their goal of treating 2,000 acres of phragmites with herbicide via helicopter and airboat applications. Continued weed eradication took place in 2010 and late 2011 along with the double disking of over 500 acres of previously sprayed, vegetation infested sandbars. The LPWMA worked closely with landowners and offered 50% cost-share for invasive weed eradication to treat Platte River channels and tributaries. Their long-term goals are to prevent invasive-species encroachment into riparian areas along the Platte and to keep the sandbars free from vegetation in order to encourage the natural “scouring” that provides piping plover and least tern habitat.

The primary species landowners should be aware of are phragmites, purple loosestrife, salt cedar and the upcoming threat of Japanese Knotweed. Japanese Knotweed is listed as one of the world’s 100 worst invasive species. It is used as a ornamental but can be found in the wild. Encroaching from the east, Knotweed has been documented in Omaha (wild) and Lincoln (ornamental). For more information about Japanese Knotweed go to: invasivespeciesinfo.gov/plants/knotweed.shtml.

For more information about weed management in the Lower Platte please visit the LPWMA website: <http://www.lowerplattewma.org/>



Above: Phragmites
Below: Purple Loosestrife



Above: Salt cedar
Below: Japanese Knotweed

