



Nebraska Resources

Newsletter

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Agency Numbers to Remember

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Editor's Note:

A full color electronic version of this newsletter can be found on the Department's web site along with back issues at <http://www.dnr.ne.gov/dnrnews/newsarchive2.html>.

2011 Flooding and Response

The **Nebraska Department of Natural Resources'** (DNR) Director Brian Dunnigan, the Department's Floodplain Management Section and other staff have been very involved during the last several months on issues related to potential and actual flooding on the North Platte, South Platte, and Platte Rivers and the Missouri River.

Director Dunnigan has traveled with Governor Heineman, Lt. Governor Sheehy, Major General Judd Lyons, Assistant Director Al Berndt of the Nebraska Emergency Management Agency (NEMA), and others to survey the flooding and to discuss actions and programs with the public and other government agencies across Nebraska. Director Dunnigan, DNR Floodplain/Dam Safety Division Manager Shuhai Zheng and other Floodplain Section staff have provided assistance at the State Emergency



North Platte River, June 9, 2011, by Jill Richters, DNR staff

Operating Center (SEOC) on a daily basis since the Center opened on May 31, 2011. DNR's major role at the SEOC includes feeding latest streamflow information to the policy group, interpreting flood inundation maps, answering questions related to the National Flood Insurance Program and providing engineering and technical assistance as needed.

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Flood Safety Tips

- **Stay informed** and keep a battery operated radio nearby for receiving local news and storm information updates.
- **Safeguard your possessions** and remove them if time permits from areas that are prone to flooding.
- **Develop an emergency plan** including a safety kit and evacuation route to higher ground for you and your family.
- **Have a designated location** for family members to meet if they become separated.
- **Do not attempt to drive, walk or swim in flooded areas. Flood water can be deceiving and very dangerous.**

The following tips may be helpful to residents returning to flood-damaged areas.

Beware of Hazards. Check your home for damage, including structural damage, before re-entering. Contact appropriate professionals immediately if you suspect damage to water, gas, electric or sewer lines. Remember to boil water until local authorities declare the water supply safe to drink.

Continued on p. 6

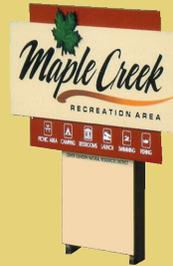
2011 Flooding and Response continued from p. 1

DNR's Floodplain Management Section creates and maintains Nebraska's digital floodplain maps. These maps are used as references for areas that may flood based upon expected stages of the rivers. DNR is the **State Coordinating Agency for the National Flood Insurance Program**. Department staff work with and provide information to the local Floodplain Administrators to ensure that they have the regulations in place to participate in the flood insurance program so that flood insurance is available to people within their jurisdiction.

As part of the response to the anticipated flooding, **DNR survey staff** surveyed several ground points in towns close to the North Platte River that were expected to receive flood waters so that additional information could be provided to the local authorities and to the public regarding areas that would be expected to flood at the projected flood stages.

DNR field office staff provided additional monitoring of its gaging stations to be sure that the stations continued to provide accurate information during the higher flow events. Field office staff also provided daily updates of river conditions to the U.S. Bureau of Reclamation and The Central Nebraska Public Power and Irrigation District to assist them in their decision making regarding releases of water from the reservoirs along the North Platte River.

Maple Creek Recreation Area



A grand opening ceremony was held by the Lower Elkhorn Natural Resources

From left to right: Stan Staab, Brian Dunnigan, U.S. Senator Ben Nelson, Ken Berney, Frank Albrecht, and Rod Zessin

District, May 21, 2011, for the Maple Creek Recreation Area. The project utilized the **Nebraska Resources Development Fund for \$4,114,949.30** of the total project costs. The project involved the construction of an earthen dam on the West Fork of Maple Creek west of Leigh, Nebraska. The resulting 160 acre reservoir will provide outdoor recreation and flood damage reduction benefits.

Operation of Mainstem North Platte River Reservoirs

There are **eight mainstem reservoirs on the North Platte River** (see Missouri River Basin map on page 3). The upper seven are operated by the U.S. Bureau of Reclamation (BOR) and the last downstream reservoir is operated by the Central Nebraska Public Power and Irrigation

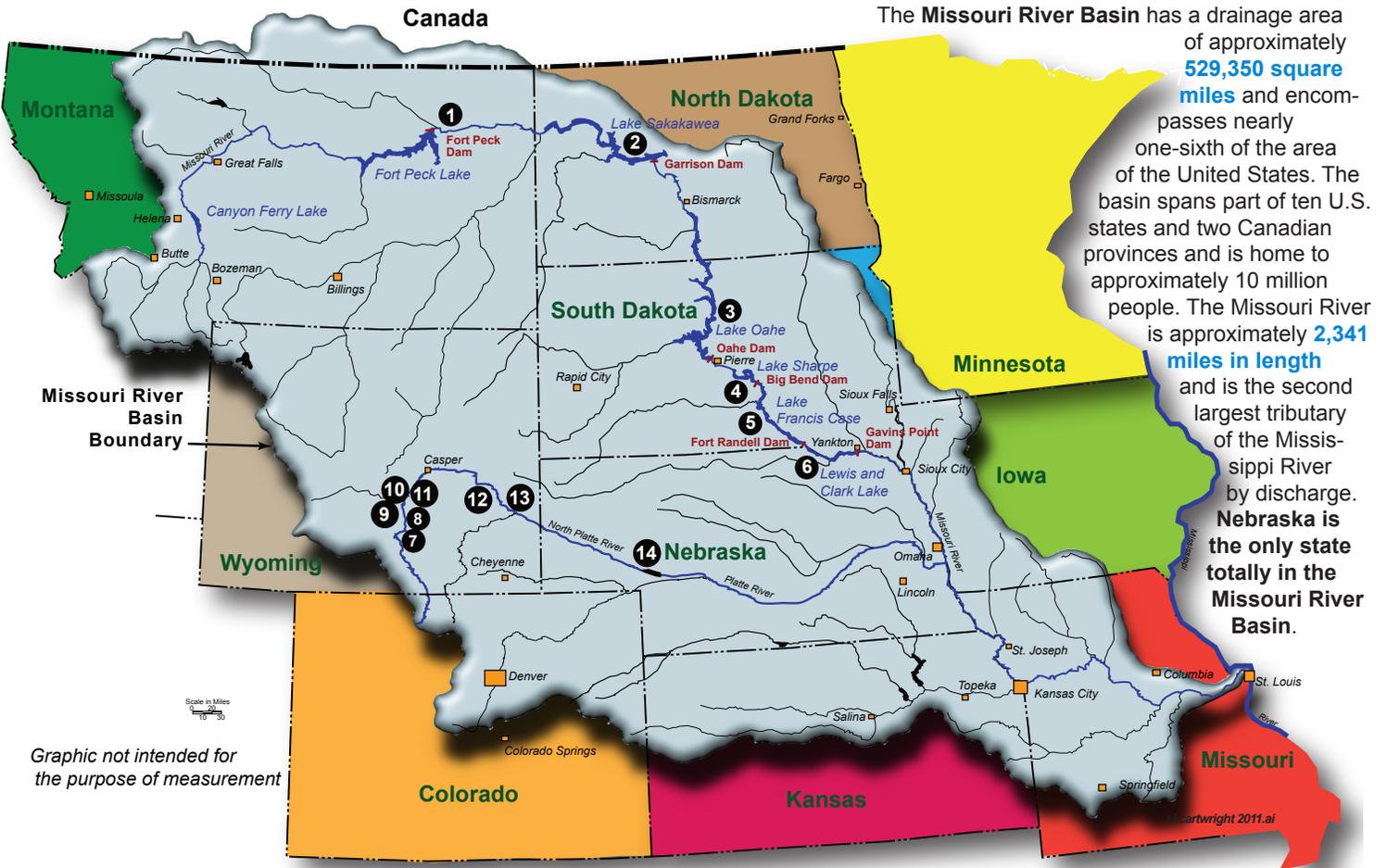
District (CNPPID). As shown by the chart included in DNR's Spring Newsletter (http://dnr.ne.gov/dnrnews/news2011/NebraskaResourcesMay2011_Read.pdf) most of the reservoirs **do not include space for storing flood flows**. Glendo is the only reservoir that contains a designated flood storage pool. The other seven reservoirs were built for the purpose of providing water for irrigation, power and other beneficial uses.

Since February the BOR, CNPPID and DNR anticipated that there would be flooding to some extent along the North Platte River due to high snowpack in the Colorado and Wyoming mountains. (See news releases and Spring Newsletter on DNR's website at <http://dnr.ne.gov>). The BOR started releasing stored water as soon as possible after the river opened from its winter freeze in order to make room for the expected above average snowmelt runoff.

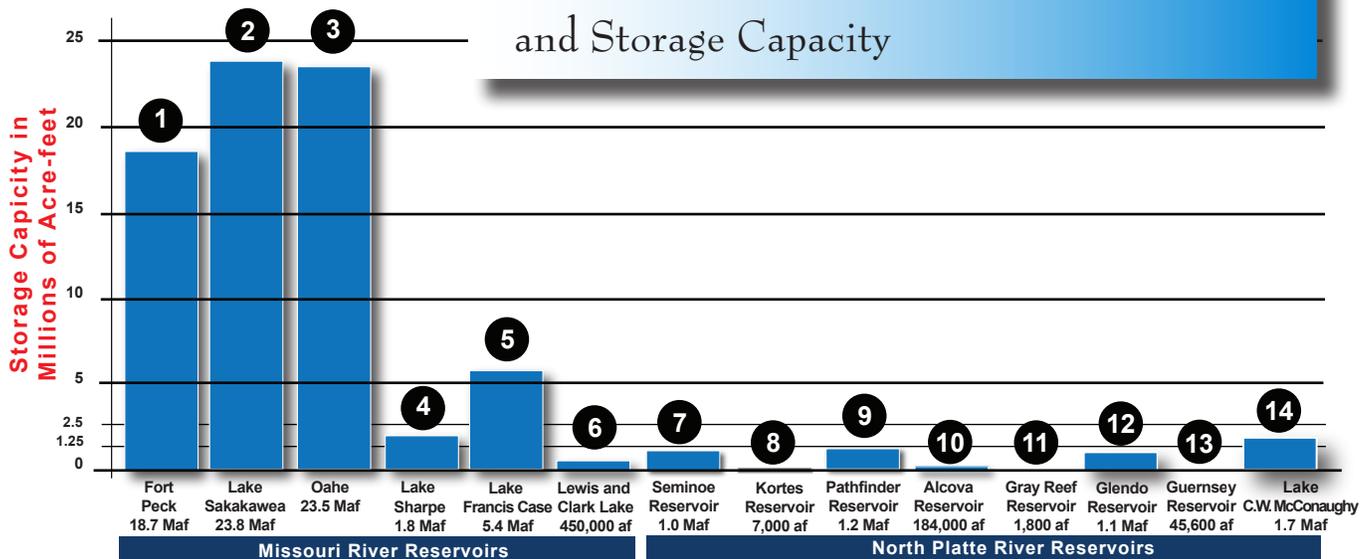


Pathfinder Reservoir, June 8, 2011, by Jill Richters, DNR staff

Missouri River Basin



Selected Missouri River Basin Reservoirs and Storage Capacity



Figures over 1 million acre-feet (Maf) rounded to the nearest 100,000 acre-feet

One acre-foot (af) of water is equal to 325,851 gallons of water

Operation of Mainstem Missouri River Reservoirs



Reservoirs on the Missouri River were constructed for the purposes of flood control, navigation, water supply, irrigation, recreation, water quality, hydro-power, and fish and wildlife.

Under the authorities of the 1944 Flood Control Act and other legislation, the **U.S. Army Corps of Engineers (USACE) constructed, operates, and maintains a series of six large dams and reservoirs on the mainstem Missouri River.** (See map on page 3 for location and capacity of reservoirs.) Fort Peck Dam and Reservoir was originally constructed under previous legislation in 1933 for the purpose of providing water for navigation below Sioux City, Iowa to Kansas City, Missouri, but is now operated for all the purposes listed below. Prior to construction of the other five dams, the Missouri River was used for navigation from its mouth near St. Louis, Missouri up to Montana.

Under the 1944 Flood Control Act, the other five dams were constructed for the **eight authorized purposes of flood control, navigation, water supply, irrigation, recreation, water quality, hydro-power, and fish and wildlife.** There have been numerous lawsuits over the years between the states in the Missouri River Basin (Wyoming, Montana, North Dakota, South Dakota, Minnesota, Nebraska, Colorado, Iowa, Kansas, and Missouri) and the USACE. Many of these lawsuits were over the operation of the dams and reservoirs and whether the USACE was operating correctly or whether one or two purposes were to receive higher priority than the other authorized purposes, specifically flood control and navigation.

In 1960, the USACE wrote the first of what is now called "**The Master Manual**," which describes how the river is to be operated. The Master Manual was subsequently revised in 1973, 1975, 1979, 2004, and 2006. Each year, the USACE issues an "**Annual Operating Plan**" describing expected actions based

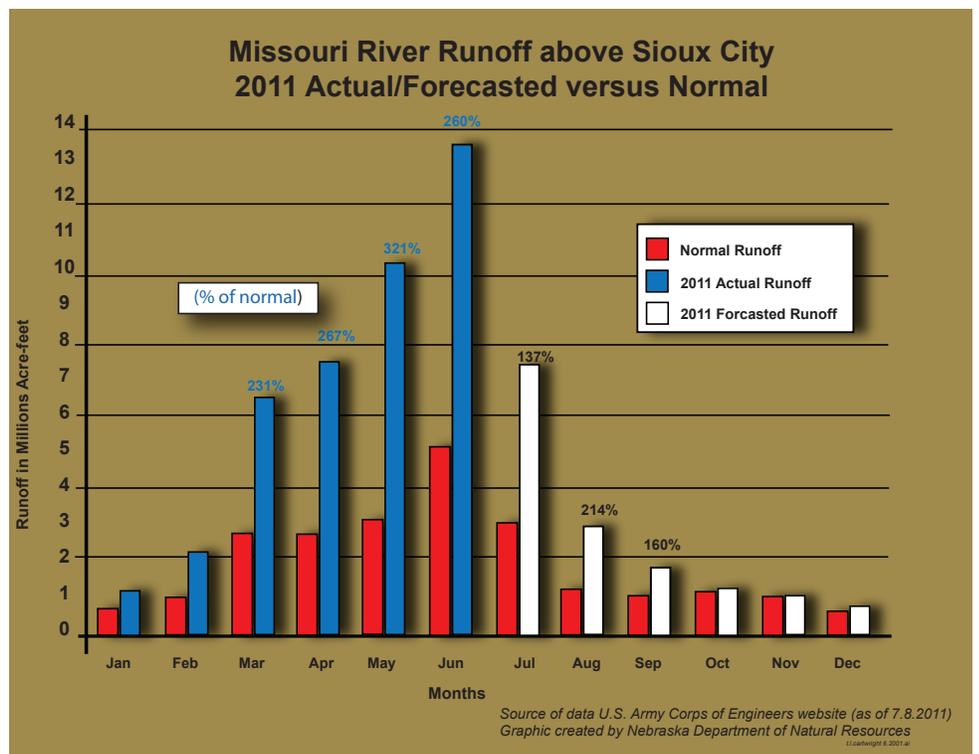
upon the reservoir storage, expected runoff, and other factors. The Annual Operating Plan is based on the Master Manual. The public has the opportunity to review the Annual Operating Plan and provide comments to the USACE.



Gavins Point Dam June 13, 2011, at 144,800 cfs. Photograph by Mark Noble, DNR staff



Gavins Point Dam pictured under normal releases



Nebraska Supreme Court Reverses Fully Appropriated Designation on Portion of the Niobrara River Basin

By Brandi Flyr, Ph.D.

This June, the Nebraska Supreme Court reversed a Nebraska Department of Natural Resources' determination regarding the fully appropriated status of portions of the lower Niobrara River Basin. DNR's original determination in January 2008 stated that the lower Niobrara River Basin, below Mirage Flats and above the Spencer hydropower facility, was fully appropriated. Four natural resource districts (NRDs), the Middle Niobrara NRD, Lower Niobrara NRD, Upper Loup NRD, and Upper Elkhorn NRD appealed DNR's determination, leading to the Supreme Court reversal. The Supreme Court's reversal was largely based upon concerns relating to the methodologies used in the current determination process.

Recognizing the need to modify the existing methodology to address questions related to the determination process, the DNR and several NRDs have been working to develop a new determination process. DNR Director Brian Dunnigan stated, *"The Department has been working with local natural resources districts for over a year and a half to address some of the shortcomings of the current methodology. We believe the collaborative process we have been pursuing will lead to a more effective determination process that will further assist state and local water managers in more*

effectively managing hydrologically connected waters of the State. This new process would have been pursued regardless of the outcome of this case."

The reversal triggers implementation of LB 483 provisions, which was enacted on April 6, 2009. These provisions outline the process for basin status changes for the DNR and affected NRDs in instances such as the lower Niobrara River Basin reversal. More specifically, the provisions specify that the current stays in place on new groundwater development may be lifted once local NRDs develop the necessary rules and regulations for prioritizing the issuance of new well permits. The reversal may also allow new surface water appropriations, with limits on new irrigation, to be granted by the DNR.

Director Dunnigan is hopeful that the local NRDs will still look to participate in joint water management planning with the Department, a requirement that would have existed had the court not reversed the decision. A recent modification to state statutes allows for NRDs to utilize a voluntary process to develop water management plans. Director Dunnigan said, *"I see this as a great opportunity for local natural resources districts and the state to move forward by working jointly on developing an effective water management strategy in the Niobrara Basin."*

A State Emergency Operation Center (SEOC) located at the Nebraska Emergency Management Agency (NEMA) has been established and continues to be staffed weekdays from 8 a.m. to 5 p.m. to monitor flooding conditions on the Missouri and Platte Rivers. A **NEMA Flood Hotline has been established and the phone number is: (855) 211-2453.**

Other flood information and additional links and resources can be found at:

Nebraska Emergency Management Agency: <http://www.nema.ne.gov>.

NEMA on Facebook: <http://www.facebook.com/nema.page>

Nebraska Department of Health and Human Services: www.dhhs.ne.gov/flooding/

Weather Information: www.noaa.gov and www.weather.gov

River Levels: <http://water.weather.gov/ahps/>

Nebraska Department of Roads: www.roads.ne.gov/flood/ or www.511.nebraska.gov

U.S. Army Corps of Engineers: www.nwo.usace.army.mil

Red Cross: www.redcrossomaha.org

University of Nebraska-Lincoln Extension: <http://www.extension.org/category/floods>

OPPD Flood Rumor Control: http://www.oppd.com/AboutUs/22_007105

NPPD: <http://www.nppd.com/>

U.S. Nuclear Regulatory Commission public blog addresses rumors and the rising Missouri River: <http://public-blog.nrc-gateway.gov/2011/06/17/rumors-and-the-rising-river/>

Nebraska Department of Natural Resources, Floodplain Management Division: <http://dnr.ne.gov/floodplain/floodplain.html>

Additional Flood Information can be found at:

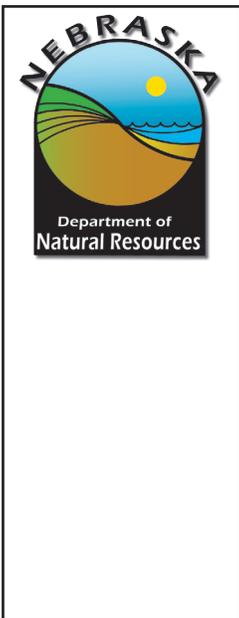
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Department of Natural Resources

Brian P. Dunnigan, P.E., Director

The *Nebraska Resources* is a quarterly publication of the Nebraska Department of Natural Resources. We welcome your comments and suggestions.

Flood Safety Tips continued from p. 1

File your Flood Insurance Claim.

Remember, most homeowners insurance does not cover flooding. Have the following information with you when you place your call: (1) the name of your insurance company (your agent may write policies for more than one company); (2) your policy number; and (3) a telephone number/e-mail address where you can be reached.

Take photographs to make filing your claim easier. Your adjuster will need evidence of your flood damage.

Make a list of damaged or lost items.

Gather any documents, such as photographs, receipts and itemized lists you made prior to the flood.

Prevent mold by removing wet contents from your home immediately.

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Nebraska Department of Natural Resources....

....dedicated to the sustainable use and proper management of the State's natural resources.