

## ***“May is American Wetlands Month”***

### **A Celebration of Nebraska’s Wetlands**

*By Gloria Bucco*

Nebraska may not sit beside an ocean, its boundaries don’t touch a Great Lake, you won’t find any bayous here, and not one inch of our state is covered by rainforest. But Nebraska has something valuable and unique you might not expect to find in a semi-arid, land-locked place: Nebraska has wetlands. Diverse, irreplaceable, beautiful, natural and wild wetlands. They’re an asset and a safeguard.

From the eastern saline wetlands near Lincoln, to the playa wetlands in the north-central and western parts of the state, to the vast Sandhills wetlands, and the riverine wetlands along the Platte, Missouri, Elkhorn and Niobrara, these extraordinary places are essential not only to wildlife and plants, but also to us.

#### **Wetlands or Wastelands?**

Wetlands were once thought to be wastelands, places that should be drained, filled and used for other purposes. We now know wetlands are natural filter systems that not only improve water quality, but also prevent erosion and flooding. They are also home to unique and sometimes endangered plants, insects, birds and animals.

When Nebraska was founded in 1867, the state had more than 2.9 million acres of wetlands. Since then, we’ve lost about 35 percent. Even so, Nebraska’s neighboring states have lost even more. For example, Iowa has lost 90 percent of its wetlands; Missouri, 87 percent; Kansas, 48 percent; and Colorado, 50 percent, according to the Nebraska Game and Parks Commission.

Today, Nebraska’s 1.9 million acres of wetlands are as dynamic as those of any state in the nation. They include marshes, lakes, river and stream backwaters, river oxbows, wet meadows, fens, forested swamps and seep areas.

The bright stars among Nebraska’s many wetlands, according to the University of Nebraska-Lincoln, include:

\* *Eastern Saline Wetlands*: Concentrated along Salt Creek near Lincoln, these unique wetlands receive their salinity from groundwater that passes through an underground rock formation that contains salts deposited by an ancient sea that once

covered Nebraska. Our saline wetlands are an important stopping off place for migratory shorebirds. They are also home to many saline plants found nowhere else in Nebraska. They are considered “critically imperiled” by both city expansion and conversion to agricultural use, according to the Nebraska Game and Parks Commission.

\* *Sandhills Wetlands*: The Sandhills are formed by extensive dunes covered by grassland. They lie above the Ogallala aquifer, and where the aquifer touches the surface, fens and alkaline wetlands form. The Sandhills wetlands are important sources of hay for winter cattle feed and support many types of water fowl.

\* *Platte River Wetlands*: The Platte is an internationally important flyway for migrating birds especially the Sandhill crane. Close to 80 percent (nearly a half million) of North America’s population of Sandhill cranes migrate through Nebraska’s Platte River valley each spring. The area along the Platte between Kearney and Grand Island is a vital resting place for the birds. Recent agreements have been reached to guarantee stream flows in the Platte to protect habitat for the cranes and other wildlife.

\* *Playa Wetlands*: These unique areas consist of shallow depressions fed by rainfall and surface runoff. Sometimes called “prairie potholes,” nearly 90 percent of playa basins in the area just south of the Platte between Grand Island and Kearney have been converted to agricultural use. The playa lakes here are particularly important for migrating waterfowl, and many area landowners are cooperating with efforts to preserve these valuable wetlands. In addition, studies have concluded that the thousands of small playa lakes are significant in recharging the Ogallala aquifer – one of the nation’s largest and a principal source of groundwater for Nebraska and other Great Plains states.

## **Wetlands and Flood Protection**

Wetlands play an important role in flood control and prevention. Think of a sponge that has been saturated with water. As it dries, the water evaporates slowly and naturally. Wetlands act like a natural sponge, storing water temporarily and then slowly releasing it. When it rains or floods, they absorb water which can then recharge groundwater supplies, permeate surrounding soil and vegetation, or slowly seep back into a stream or river.

Since flooding is the most common natural hazard in the country, the importance of wetlands can’t be overstated. Wetlands reduce the frequency and intensity of floods by acting as natural buffers – slowing, absorbing and storing significant amounts of floodwater. The presence of wetlands in only 15 percent of a watershed can reduce flooding by as much as 60 percent, according to the Natural Resources Conservation Service. Just one acre of wetland can store 1.5 million gallons of floodwater.

The presence of wetlands can also diminish flood damage inland. A study by the Wetlands Initiative concluded that restoring wetlands along the Upper Mississippi River 100-year floodplain could increase storage capacity to 39 million acre-feet of flood water

– a similar volume to that of the Great Mississippi Flood of 1993 that caused close to \$20 billion in damages.

Groundwater discharge is another function of wetlands. During this process, groundwater is released to the surface. This is important for stabilizing stream flows, especially during dry periods. Groundwater discharge through wetlands can also enhance aquatic life and contribute toward high quality water in lakes, rivers and streams.

## **What You Can Do**

The United States has lost an estimated 100 million acres of wetlands since the late 1700s, according to the Environmental Protection Agency. This trend is changing, however, and between 1998 and 2004, wetland gains exceeded losses, according to the U.S. Fish and Wildlife Service.

Even so, wetlands continue to be threatened by many factors especially urban and rural development. Here are some suggestions from the EPA for what you can do to protect and restore these valuable natural resources in Nebraska:

1. Support and promote wetlands by adopting a wetland.
2. Join a local watershed group.
3. Participate in a wetland monitoring, restoration or cleanup project.
4. Inform others in your community about the importance of wetlands.
5. Visit <http://www.epa.gov/owow/wetlands/awm/#you> and learn more.

*Gloria Bucco is a public information officer with the Nebraska Department of Natural Resources Floodplain Map Modernization Project.*

[Chart to go with story]

## **What Wetlands Do**

- \* Improve water quality.
- \* Provide habitat for wildlife, fish and unusual plants.
- \* Reduce flooding and soil erosion.
- \* Supply water.
- \* Produce food.
- \* Provide recreational and educational opportunities.

*Source: Guide to Nebraska's Wetlands, Nebraska Game and Parks Commission*

[Chart to go with story]

## **Who Relies on Wetlands to Survive?**

- \* Bald eagle
- \* Sandhill crane
- \* Great blue heron
- \* Whooping crane
- \* Great egret
- \* White pelican
- \* Red-winged blackbird
- \* White-tailed deer
- \* Beaver
- \* Red fox
- \* Northern Leopard Frog

*Source: University of Nebraska-Lincoln*

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