

## Migratory Bird Habitat Restored in the Rainwater Basin

By: Joanna Pope, Nebraska NRCS Public Affairs Officer

**W**etlands – some call them “wasteland,” “non-production acres,” or simply “a pain in the neck.” Don Cox, however, calls them an oasis in a desert of cropland for wildlife to find rest, food and a place to call home.

Cox calls Adams County home. Adams County is located in the heart of a unique geographic area known as the Rainwater Basin.

The Rainwater Basin is a complex of wetlands that covers portions of 21 counties in south central Nebraska. The Rainwater Basin area is the narrowest portion of the migration route known as the Mid-continental Flyway. In the spring, birds that have wintered on the Gulf Coast and across Texas and Mexico funnel into this 150-mile-wide area that contains several hundred wetlands covering about 21,000 acres.

The wetlands within the Rainwater Basin provide the perfect habitat for migrating water birds. Rainwater Basin wetlands are shallow, elliptical depressions lined with a relatively impermeable layer of clay. These wetlands provide the food and habitat critical for migrating birds to ensure they arrive at the northern nesting grounds in prime condition for breeding.

From mid-February to mid-March, millions of waterfowl use the wetlands and uplands of the Rainwater Basin Region of Nebraska for resting, feeding and pair bond formation. The numbers are impressive: three to six million snow geese, four million mallards, 900,000 white-fronted geese,

900,000 pintails, plus millions of other migrating birds, including Canada geese, and shorebirds. South-central Nebraska is also one of the most frequent stopover areas for whooping cranes on their spring and fall migrations.

The Rainwater Basins are also home to numerous birds and wildlife throughout the year, including pheasant, blue-winged teal, mallards, killedeer, American avocets, northern harriers, and yellow-headed blackbirds.

Despite being critical to migrating and residential wildlife species, the Rainwater Basin wetlands have been greatly reduced from their historic numbers. Throughout much of the twentieth century, wetlands were drained for farming, bisected by roads, or silted-in by erosion, until only about ten percent of the original Rainwater Basin wetlands remain.



*Don Cox has restored several wetlands in the Rainwater Basin - a critical stop over point for migratory water birds.*

To help reverse this trend, in 1992 a group of conservation agencies and organizations formed the Rainwater Basin Joint Venture. The goal of the Rainwater Basin Joint Venture is to restore and permanently protect 37,000 acres of high-quality wetlands and 25,000 acres of associated uplands with adequate water and distribution to meet the habitat needs of waterfowl and other migratory birds.

The Joint Venture provides partnership structure for agencies, non-governmental organizations, landowners, and farmers to address natural resource issues through projects that also improve migratory bird habitat. From its inception, conservation organizations, private citizens, business and industry have been equal partners with state and federal wildlife agencies in this Joint Venture. Providing incentives for landowners to manage their land for waterfowl has been the key to its success.



*American White Pelicans enjoy the wetland habitat created through the Wetlands Reserve Program (WRP) on Don Cox's land.*

Cox is one of the landowners the Rainwater Basin Joint Venture worked with on a large wetland restoration project just north of Hastings, Nebraska. As an avid hunter and waterfowl enthusiast, Cox was well aware of the sharp decline in the number of wetlands within the Rainwater Basin. He wanted to do his part to help improve habitat for migrating birds.

In February, 1995 the Rainwater Basin Joint Venture held the first landowner meeting in an attempt to help mediate a solution to water issues in a large wetland area known as the Trumbull Basin. Twenty-five local landowners and farmers attended, along with representatives from various conservation agencies and organizations.

The Trumbull Basin is a 600 acre wetland located within the Rainwater Basin. For many years

landowners had tried to farm Trumbull Basin. To deal with the large amount of water flowing into the area after rain events, farmers pumped water off of crop ground into pits to later use for irrigation. Dikes were also built around the perimeter of the properties to keep the water from flooding their cropland. Despite these efforts, cropland was often flooded and crop yields compromised as a result.

In March 2002, Cox and two partners, Jeff Anderson and Larry Rouse, purchased a quarter section of the Trumbull Basin property at auction with the intent of restoring the wetland.

Rouse had farmed the property for the previous 30 years and knew full well the challenges that existed in attempting to get a crop off the property each year. In addition, two adjacent property owners also decided to restore their portions of Trumbull Basin back to wetlands.

The U.S. Department of Agriculture's Natural Resources Conservation Service, a key partner in

the Rainwater Basin Joint Venture, worked with the landowners to help them restore their wetlands through the Wetlands Reserve Program (WRP). The Wetlands Reserve Program is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property.

Through the Wetlands Reserve Program, the Natural Resources Conservation Service provides technical and financial support to help landowners with their wetland restoration efforts. WRP provides landowners the choice whether to enroll their property into a 10 year, 30 year or permanent easement.

Once the land is enrolled into the program, landowners may no longer use the land to produce a crop, but they have many other options available. There are several compatible uses for which landowners may continue

to use the restored wetland, including haying, grazing and recreation. NRCS will work with landowners to develop a “compatible use agreement” as long as the activity does not compromise the ability of the property to function fully as a wetland.

The goal of the NRCS is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the Wetlands Reserve Program. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and protection.

“The goals of the Wetlands Reserve Program met our goals perfectly. We wanted to create the best wetland out there, and the Wetlands Reserve Program provided us the technical and financial assistance to make that happen,” Cox said.

Cox and his partners enrolled their property into the permanent easement option under the Wetlands Reserve Program. NRCS developed a wetland restoration plan with the help of other Rainwater Basin Joint Venture partners, which included the Nebraska Game and Parks Commission and the U.S. Fish and Wildlife Service.

The restoration plan restored the hydrology of the wetland. It called for the removal of over 150,000 cubic yards of sediment that had washed into the wetland after the years of farming and removal of all perimeter dikes. The soil excavated from the wetland was used to help build up the county road adjacent to the project area. Several culverts were removed or relocated to help prevent water from leaving the wetland and equalize water levels on the various properties. Several new culverts were added to help drain water off neighboring property in to the newly restored wetland. On the upland acres surrounding the wetland, a mix of native grasses were planted providing additional wildlife habitat.

The restoration project took nearly a year, but Cox and his partners have been extremely pleased with the results.

“Although our primary goal for enrolling the property in WRP was to benefit waterfowl, as a result of the restoration pheasants, quail, deer and many other types of wildlife have been direct benefactors,” Cox said. Shanda Weber, resource conservationist with NRCS in the Hastings field office works with Cox and his partners to help them manage the restored wetland. She said their restored wetland is one of the best in the area. She attributes that to their strong desire to take care of the wetland. Management of the wetland has included spraying for noxious weeds, conducting prescribed burns and disking to help control reed canary grass and other invasive vegetation.

The Nature Conservancy, through a grant received from the Nebraska Environmental Trust, recently helped with cost share to build a fence around the restored portions of the Trumbull Basin wetlands. Ducks Unlimited provided technical expertise for fencing specifications and design, and oversaw construction of the fencing. Cattle will soon be moved onto the property to graze the wetland under a specific grazing plan approved by the NRCS. Grazing is another wetland management tool used to help enhance wetland habitat.

Weber said, “It is so nice to have a landowner dedicated to the management of a wetland. Too often people want to restore a wetland, but don’t understand that it takes constant management to keep the wetland functioning as it should.”

Cox and his partners are proud of the role they have played in helping to restore a wetland.

“This was the perfect opportunity to make a quick, permanent impact on available wetland acres in the Rainwater Basin for migrating waterfowl,” Cox said.



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