

# **WATERFOWL**

## **Historic Management**

From 1985 through 1994, this property was managed as irrigated pasture land for beef cattle production. Under this management objective, the mode of operation was as follows. Water that had accumulated on the property over the winter would be pumped off beginning in February or March. Pumping would continue until the property was without surface water except in the drainage canals. This condition was usually achieved by approximately May 1. Cattle were trucked into the ranch beginning in April and turned out on the north half of the property. Approximately 1,300 cow/calf pairs grazed the property through November with some variation in these dates due to weather. Irrigation of the property was usually conducted during July, August and September. Under this management scenario, open water was limited to a few areas that were not grazed in the previous year. Spring and fall forage for migrating geese was abundant. Vegetation on the property was dominated by grasses, sedges and weeds. In 1995, much of the property remained wet, resulting in dramatic changes in vegetation (away from grasses), and increased waterfowl use, primarily by ducks.

## **Management in 1996**

A number of factors combined to change the management of property in 1996. Because the final RMP/EIS was complete, along with endangered species consultation and consultation with the U.S. Army Corps of Engineers, pumping was initiated in February and completed in May. The property was completely dry by July 1<sup>st</sup>, in preparation for construction activities. As a result, there was another significant shift in vegetation. The entire property was dominated by grasses and sedges. Forbs were abundant in spots, but aquatic smart weed was significantly less abundant.

## **Management in 1997**

Management of the property in 1997 was essentially the same as in 1996. Pumping was initiated in February and completed in May. The property was completely dry by July 1<sup>st</sup>, in preparation for construction activities. The entire property was again dominated by grasses and sedges. Forbs were abundant in spots during the spring. Aquatic smart weed was less abundant than in 1995 and hardstem bullrush increased slightly.

## **Field Observations in 1997**

Early draining of the Wood River property in 1997 resulted in less diversity of habitats being available for waterfowl and shorebirds. As a result, the overall number of species using the property in 1997 was less than in 1996 and significantly less than 1995. Also, the total number of waterfowl using the property was less than recorded in 1996. This is expected to be the case during years when the property must be drained to facilitate earth moving, construction, or maintenance activities.

Periodic flights have been made over the property since 1994 (except May-August), by the U.S. Fish and Wildlife Service. Results of those flights are displayed in Table 3.

## **Conclusions**

Changes in water management during 1997 resulted in a change in vegetation and use by waterfowl. These changes are expected to be short-lived when the property has been drained in order to facilitate construction work. Certainly, no far-reaching conclusions can be drawn from this limited data. However, the ability of both vegetation and waterfowl to respond to changes in water management on the property, has already been demonstrated. Construction activities are anticipated to continue into the spring of 1998. After that time, the ability to flood each half of the property to different water depths will exist. This should greatly increase management options and habitat effectiveness. By 2000, the effects of wetland restoration on waterfowl will become more evident.

## **Management in 1998**

Water management in 1998 was somewhat different than in previous years. Due to the need to complete earth moving and water control structure installation, the property was kept dry from January through April. After the construction work was completed, the property was flooded in May. Water levels averaged approximately 14 inches over the south half of the property and approximately 4 inches on the north half. These water levels were maintained through July. The need to salvage wetland plants from the south half of the property resulted in a general drying of the property during August and September. Open water was restricted to the ponds and channels during this time. The south half of the property was re-flooded during November for waterfowl hunting.

## **Field Observations in 1998**

Waterfowl and shorebirds appeared to respond well to the water management in 1998. Goose production appeared to be improved over 1997. In 1998, an attempt was made to quantify duck production for the first time. The brood count conducted during August was impressive both in the number of birds and in the variety of species observed with broods.

The acquisition of approximately 7,000 acres to the west of Wood River Wetland by the Bureau of Reclamation (BOR) greatly influenced waterfowl during 1998. Because of the timing of the acquisition, the BOR property was not grazed during 1998. In fact, it was flooded with approximately 18 inches of water throughout the summer and fall. This provided excellent habitat for resident and migrating waterfowl, with peak numbers exceeding 300,000 birds.

Periodic flights have been made over the property during the past five years (except May-August) by the U.S. Fish and Wildlife Service. Results of those flights are displayed in Table 3.

## **Wood River Wetland Waterfowl Brood Count 1998**

On August 4, 1998 a waterfowl brood count was conducted on the south half of the Wood River Wetland. The survey was conducted between 8:00 a.m. and 12:00 p.m., on approximately six miles of channels using a combination of canoe and pick-up trucks. Two observers, used binoculars to determine species, number of young, age of young, and presence of adult birds with the brood. Table 1 reflects the data collected during this one day of observation. The survey did not count young of the year birds observed in flight. Gadwall hens were observed incubating eggs during the time of survey. As a result, early broods and late broods are not represented in this data.

**Table 1. Brood Count Data 8/4/98**

Species	Total Young	Misc. Notes
Gadwall	541	Many Gadwall hens were still on nests
Cinnamon Teal	174	
Mallard	84	Several mallard broods were already able to fly, and were not counted.
Shoveler	19	
Ruddy Duck	19	
Ring-necked Duck	14	
Scaup	14	
Coot	4	
Horned Grebe	2	
Eared Grebe	2	
Total Production	873	

Several family groups with young of the year birds were observed in flight. No attempt was made to estimate production based on these observations. These family groups included Canada geese, mallards, cinnamon teal, pintails, black-necked stilts, common snipe, long-billed dowitcher and white-faced ibis.

### **Management in 1999**

Water management in 1999 began with the property being inundated in January. Approximately 2,500 acres was covered by 3"-36" of standing water from January-May. Water was pumped from the property for approximately 14 days between March and April. Water levels were allowed to recede during the growing season (May through September) from evapotranspiration. This drying allowed for wetland plants to be transplanted from the interior wetland to the restoration area adjacent to the Wood River channel. Water levels were increased from September to December, through irrigation and precipitation.

### **Field Observations in 1999**

Despite a cool wet spring, that delayed plant growth as well as waterfowl nesting, waterfowl broods observed in August seemed to indicate increased brood production (see Tables 1 and 2). The diversity of habitats available for waterfowl and shorebirds was good, and should continue to increase over the next several years. A nesting colony of white-faced ibis (approximately 100 nesting pair) was observed for the first time. Other birds observed nesting include black-necked stilts, common snipe, Sandhill cranes, Virginia rail, yellow rail, and black terns. The overall number of species using the property in 1999 increased slightly over past years, but the overall numbers of waterfowl was less than in 1998 and significantly less than 1995.

Waterfowl habitat, around Agency Lake, has greatly improved, as the result of other restoration efforts (Tulana Farms, Agency Lake Ranch). This improved habitat has also changed waterfowl distribution.

Periodic flights have been made over the property during the past eight years (except May-August) by the U.S. Fish and Wildlife Service. Results of those flights are displayed in Table 3.

### *Conclusions*

A longer period of inundation, along with a cold wet spring, resulted in a change in vegetation and use by waterfowl. While no far-reaching conclusions can be drawn from this limited data, the ability of both vegetation and waterfowl to respond to changes in water management on the property, has already been demonstrated. Wetland Managers now have the ability to flood each half of the property to different water depths. This should greatly increase management options and habitat effectiveness. BLM Managers hope to see waterfowl use and numbers responding to this new management during 2000.

**Wood River Wetland Waterfowl Brood Count 1999**

**Table 2. Brood Count Data 8/5/99**

<b>Species</b>	<b>Total young counted</b>	<b>Number of broods</b>	<b>Avg. young per brood</b>
Cinnamon Teal	500	60	8.3
Gadwall	492	62	7.9
Mallard	97	13	7.5
Shoveler	66	9	7.3
Eared Grebe	38	25	1.5
Ringneck	34	6	5.6
Greenwing teal	28	5	5.6
Pied Billed Grebe	9	3	3
Widgeon	8	1	8
Ruddy Duck	8	2	4
Wood Duck	6	1	6
Scaup	3	1	3
Coot	35	unknown	unknown
<b>Total</b>	<b>1324</b>	<b>188</b>	<b>6.9</b>

**Table 3. Total Ducks and Geese (Aerial Surveys)**

<b>Date</b>	<b>Total Ducks and Geese</b>	<b>Date</b>	<b>Total Ducks and Geese</b>
03/19/93	400	01/06/97	0
04/04/93	20,100	03/03/97	39,010
09/03/93	150	09/09/97	4,800
01/09/94	1,040	10/02/97	29,100
02/25/94	16,300	10/16/97	2,500
09/02/94	6,950	01/07/98	830
03/02/95	7,300	02/26/98	3,520
04/14/95	20,100	03/18/98	24,020
09/07/95	35,160	04/20/98	13,100
09/19/95	104,700	09/02/98	3,790
10/04/95	54,900	09/30/98	24,400
10/25/95	4,180	10/12/98	5,300
11/01/95	5,210	10/28/98	10,130
11/22/95	21,800	11/16/98	16,900
01/22/96	470	12/11/98	1,560
02/05/96	980	01/04/99	470
03/03/96	3,400	03/01/99	21,630
03/21/96	32,370	03/15/99	19,280
09/03/96	13,800	09/07/99	3,240
09/19/96	8,500	09/22/99	22,200
10/03/96	14,400	10/05/99	0
10/16/96	6,400	10/20/99	4,660
10/30/96	4,500	11/02/99	3,400
11/06/96	4,500	11/15/99	8,200
12/04/96	1,160	01/07/00	300