

## 2 Lacreek National Wildlife Refuge and Wetland Management District





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### 2.1 Establishment, Acquisition, and Management History

Lacreek National Wildlife Refuge was established on August 26, 1935 by President Franklin D Roosevelt through Executive Order No. 7160:

*“... as a refuge and breeding ground for migratory birds and other wildlife.”*

The refuge lies in the Lake Creek Valley on the northern edge of the Nebraska Sandhills and includes 16,410 acres of native sandhills, sub-irrigated meadows, impounded fresh water marshes, tall- and mixed-grass prairie uplands, reseeded grasslands, and trees and shelterbelts (see figure 3, location map). The refuge serves as an important staging area for migrating Canada geese, other waterfowl, sandhill cranes, shorebirds, and neotropical migrants. Providing critical migrational and wintering habitat for the high plains trumpeter swan flock is a primary goal. Unique habitats are provided in black-tailed prairie dog towns that support high numbers of burrowing owls and host ferruginous hawks, a species of concern. The refuge provides a variety of habitats for resident wildlife and supports concentrations of white-tailed and mule deer, sharp-tailed grouse, and ring-necked pheasants during the fall and winter.

The majority of the refuge was acquired shortly after refuge establishment. Several inholdings within the approved refuge boundary were never acquired. The refuge would be interested in acquiring these inholdings, should a future



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*Trumpeter swans at the trout ponds*

opportunity arise to purchase from a willing landowner. At the time of establishment it was the only managed NWR west of the Missouri River in South Dakota. Today Lacreek is one of two refuges west of the Missouri River in South Dakota.

The WMD was started as part of the Small Wetlands Acquisition Program (SWAP) in the 1950s to save wetlands from various threats, particularly draining. The passage of Public Law 85-585 in August of 1958 amended the Migratory Bird Hunting and Conservation Stamp Act (Duck Stamp Act) of 1934, allowing for the acquisition of Waterfowl Production Areas (WPAs) and Easements for Waterfowl Management Rights (easements).

The WMD contains eight perpetual easements totaling 3,443 acres. The easement restrictions vary; however, they generally prohibit wetland drainage, grassland conversion, development, and they require a Special Use Permit for vegetative manipulation. The lands remain in private ownership. No fee title lands are currently owned by the Service in the WMD. There is no active easement or fee title acquisition program in the WMD.

### **Refuge and Wetland Management District Purposes**

The purposes for the refuges and wetland management district are as follows:

*Executive Order, August 26, 1935 “...as a refuge and breeding ground for migratory birds and other wildlife...”*



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*Wetland*

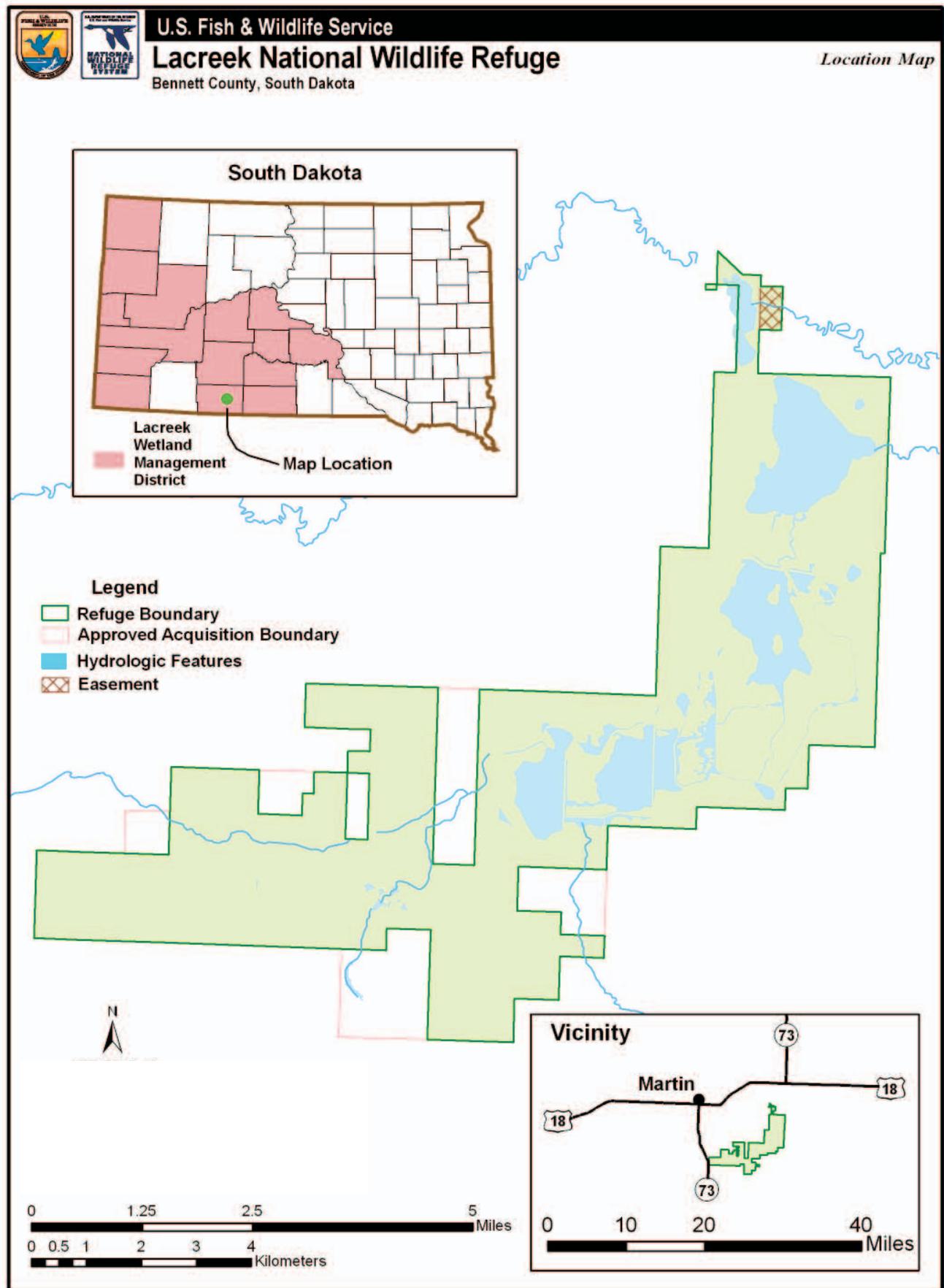


Figure 3. Location map

*Migratory Bird Conservation Act* “...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

The 223 acre Little White River Recreation Area was donated to and accepted by the Service on May 20, 1980 under the authority of the Refuge Recreation Act

*Refuge Recreation Act (16 USC 460K-K4)* “...for public recreation on...developments adjacent to conservation areas in existence.”

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*Migratory Bird Hunting Stamp Act 16 U.S.C. 718(c)* “...as Waterfowl Production Areas subject to all provisions of the Migratory Bird Conservation Act ...except the inviolate sanctuary provisions...”

*Migratory Bird Conservation Act 16 U.S.C. 715d* “...for any other management purposes, for migratory birds.”

*Consolidated Farm and Rural Development Act 7 U.S.C. 1924* “... for conservation purposes.”

## 2.2 Vision and Goals

### Vision

Lacreek National Wildlife Refuge’s wetland resources create a sanctuary within the semi-arid Great Plains landscape. The refuge provides a great diversity of uses for wildlife and humans alike. Refuge stewards manage hydrology to reflect natural conditions and restore native plant communities of the Lake Creek Valley and the adjacent sandhills for migratory birds and other native wildlife. Visitors learn about grasslands, wetlands, and sandhill ecosystems and enjoy wildlife-dependent recreation. Ongoing cooperation with partners and the public fosters appreciation and builds support for the refuge’s biological and cultural assets.

### Goals

**Goal 1. Wildlife and Habitat Management:** Conserve, restore, and enhance the native biological diversity of the Lake Creek Valley and Nebraska Sandhills for migratory birds and other wetland- and grassland-dependent species.

**Goal 2. Research and Science:** Use sound science, monitoring, and applied



*Trumpeter swans*

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research to advance the understanding of natural resources and management within the Lake Creek Valley, Nebraska Sandhills and surrounding grasslands.

**Goal 3. Public Use:**

Provide opportunities for quality wildlife-dependent recreation and promote awareness of the refuge’s resources and the mission of the System.

**Goal 4. Cultural Resources:**

Identify, value, and preserve the cultural resources and history of Lacreek NWR to connect refuge staff, visitors, and the community to the area’s past.

**Goal 5. Refuge Operations:**

Secure and demonstrate effective use of funding, staffing, and partnerships for the benefit of all resources in support of the System mission.

**Goal 6. Partnerships:**

Engage a wide range of partners, including non-governmental organizations and federal, state, tribal, and local entities, to join with Lacreek NWR Complex to support research and management, promote awareness, and foster appreciation for the Lake Creek Valley, Nebraska Sandhills, and surrounding grasslands.

## 2.3 Special Values

The planning team and public identified special values and qualities that make most of these refuges valuable for wildlife and the American people. The Lacreek NWR has the following attributes:

- The refuge lies at an intersection of different grassland types. Sandhills prairie, tall-grass prairie, and mixed-grass prairie can all be found here.

- Water in an otherwise arid landscape is a wildlife magnet. The presence of reliable springs with high quality water was the reason for establishment of the refuge and continues today.
- Many species of both eastern and western birds, small mammals, and other wildlife overlap ranges here. For example, both eastern and western meadowlarks can be found on the refuge.
- Lacreek NWR played a key role in the restoration of the High Plains Flock of trumpeter swans and continues to be one of the primary fall staging and wintering sites for this flock.
- Visitors can still find wide-open spaces that remain relatively undisturbed. Visitors may often feel as if they had the place to themselves.

Wildlife is abundant and highly visible because of habitat types and relatively low disturbance levels.

## 2.4 Planning Issues

Prior to writing the draft CCP, the staff and other planning team members met to identify any significant issues that should be addressed in the plan. A public open house, news releases in the local and regional press, an announcement in the Federal Register, and numerous mailings were conducted to solicit public input on important issues to be addressed. Following are the most significant issues identified.

### **Habitat Management**

Lacreek NWRs primary purpose is to provide optimal habitat conditions for the needs of a suite of migratory and resident wildlife found on the refuge. To achieve goals and objectives set for the refuge's habitat, aggressive management must be completed. Nearly all uplands north of Lake Creek were previously farmed and the native vegetation lost. Many of the refuge's wetlands are located behind or below earthen dams that can be used to either create deep and stable water levels or to mimic natural wet and dry cycles. There is a gap between public perception of disturbance and the understanding of how managed disturbance mimics natural disturbance and creates healthier ecosystems.

### **Black-tailed Prairie Dog Management**

In July 1998, the National Wildlife Federation petitioned the Service to list the black-tailed prairie dog as threatened under the Endangered Species Act. In the fall of 1999, a moratorium of all black-tailed prairie dog control on Service lands was issued by the Regional Director. In February 2000, the Service concluded that this species warranted listing, but was precluded from being listed due to other higher priority species concerns and resource constraints. In August 2004, an updated evaluation of the best available scientific information led the Service to determine that the black-tailed prairie dog should be removed as a candidate for listing.

In March 2005, the South Dakota legislature passed Senate Bill 216. This measure sets forth conditions under which prairie dogs will be considered pests by the state. It also outlines a formalized complaint process by which private landowners may file complaints against adjacent landowners. If the adjacent private landowner does not comply with controlling a one mile buffer or mutually agreed to buffer, then the County Weed Board may be authorized to enter onto private lands to control prairie dogs and bill the landowner for that work. The State Department of Agriculture will attempt to negotiate control measures on federal and tribal lands where formal complaints are received from adjacent private landowners.

During this same 1999-2005 period, a severe drought hit western South Dakota. A cessation of all control activities on federal lands combined with the drought caused a rapid increase in total acres occupied by black-tailed prairie dogs in southwestern South Dakota. The number of occupied acres on Lacreek NWR showed a similar trend, and increased an estimated 343 percent from 1997 to 2004. The number of individual prairie dog



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Prairie dog

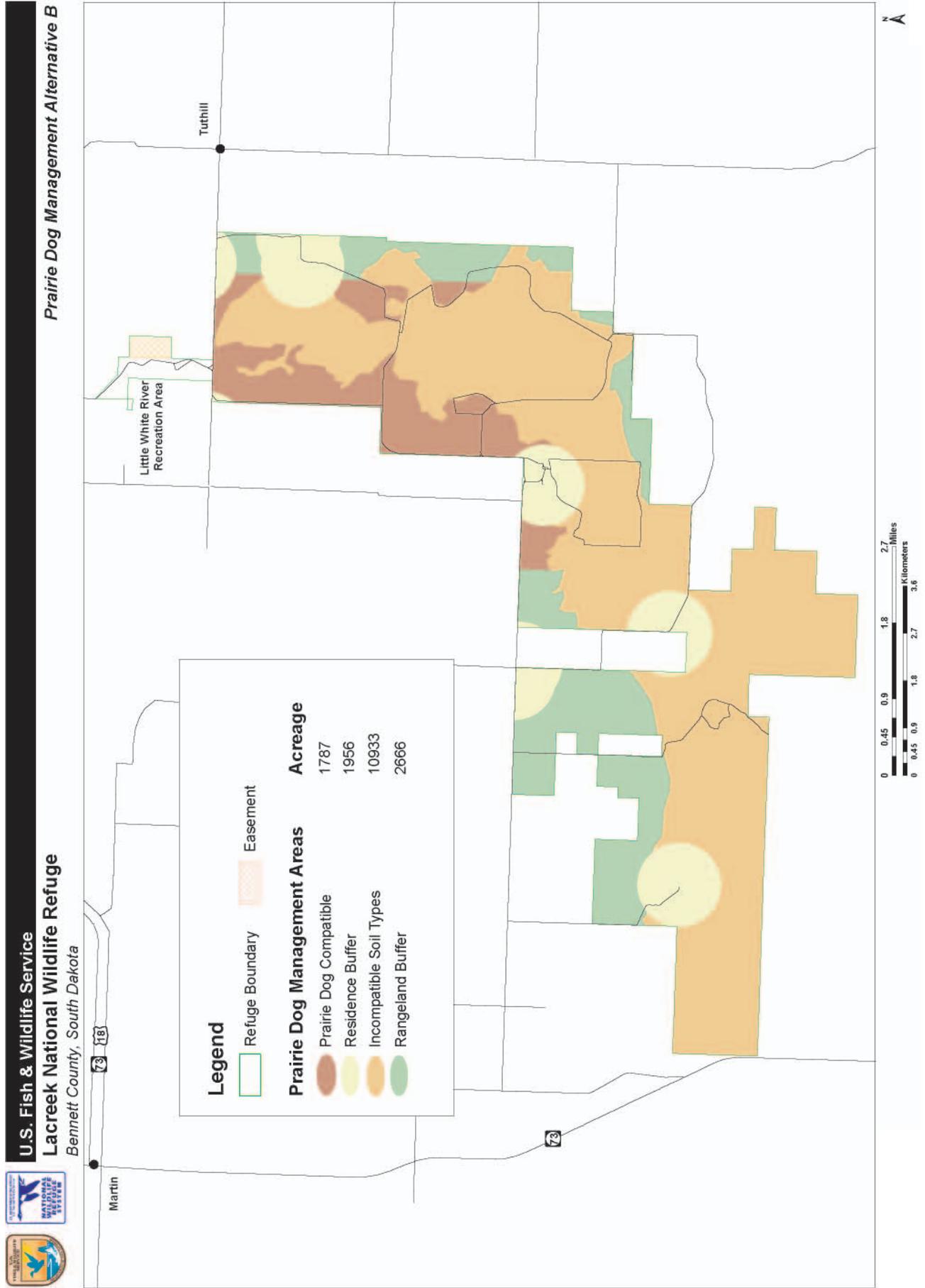


Figure 4. Prairie dog management, alternative B

towns increased from three in 1997 to 10 in 2004.

Prairie restoration includes control of noxious weeds such as Canada thistle, and replacement of non-native planted species that tend to form single-species stands of vegetation (such as crested wheatgrass and smooth brome). Restoration is best accomplished by farming for 3 to 5 years, and then reseeding with a diverse seed mix including native grass collected locally, sedge, and forb seeds. Under current regulations prairie dogs cannot be disturbed by plowing. Therefore, this effective prairie restoration technique can no longer be used on the refuge.

Prairie dogs located on the refuge have expanded onto adjacent private lands where they are not wanted. Control on private lands has proven futile in these situations, as prairie dogs quickly

re-occupy controlled sites. A draft step down black-tailed prairie dog management plan is in appendix E.

### **Noxious Weed Control**

Noxious weeds, especially Canada thistle, have the ability to degrade wildlife habitat and to spread into adjacent private lands. This has been a significant issue on the refuge for many years. A large portion of the refuge's resources are directed at control of Canada thistle and other invasive species. Integrated Pest Management (IMP) strategies currently used include prescribed burning, grazing, mowing, herbicides, insects, interseeding, and farming in combination to provide control.

New invasive species—such as salt cedar or purple loosestrife—establishing on the refuge is a constant threat. Generally, an immediate control response to new invasive species is most effective in the long term.

### **Water Rights and the Use of Water for Wetland Management**

Contested water rights on the Brown Ranch portion of the refuge have been a significant issue for the refuge during the last 20 years. During a Coordinated Resources Management effort, the Service agreed to withdraw its application for diversion of water from Lake Creek to flood irrigate portions of the refuge north of Lake Creek. The CRM process was not successful in resolving water issues with refuge neighbors. Following a protracted hearing before the South Dakota Water Management Board, a water right was granted for installation and maintenance of Diversion 4A for the primary purpose to act as a physical barrier for carp. Adjacent landowners and Bennett County officials involved in this dispute are concerned that

the Service may attempt to reapply for this water right to divert water from Lake Creek.

### **Public Use**

Hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation are all uses currently allowed on the refuge. Limited public lands available for public recreation in the area make this an issue of interest. There is demand for increased and improved recreational fishing opportunities on the refuge.

### **Little White River Recreation Area**

The Little White River Recreation Area (LWRR) was accepted as a donation in fee title under the Refuge Recreation Act. The recreational fishery and opportunities for swimming and boating are currently impaired by high sediment loads. Many local residents are interested in determining if improvements are possible.

A second issue concerning the LWRR is the proposed Phase III Project. The proposed project includes excavation of a secondary emergency spillway, replacement of the primary emergency spillway, replacement of the outlet works, and raising the elevation of the dam by one foot. The operating level of the pool would not be increased due to the 1 foot of additional freeboard. Once completed, a probable maximum flood event would pass without overtopping the dam.

### **Species of Concern**

**Pelicans.** Lacreek NWR hosts the largest nesting colony of American white pelicans in South Dakota. Lacreek's nesting colony has fluctuated from year to year, but has had continued use since the 1940s. Management of water levels in refuge pools, particularly Pool 9, could impact this nesting colony by allowing predators such as coyotes easier access to the islands. When Pool 9 is drawn down, a land bridge forms, allowing coyotes and other predators to walk to the islands. Emergent vegetation may also begin to grow around the islands with successive drawdowns, making the site less attractive to pelicans. During the 2005 nesting season, all adult pelicans abandoned the island and all young died. On several occasions, refuge visitors observed a coyote on the island that had swam from the shore. It is not known if a single coyote or numerous coyotes learned this behavior of swimming to the island. The abandonment and subsequent loss of all young pelicans has occurred at several other nesting colonies in recent years, and coyote predation was also speculated as a cause in these cases.

**Swans.** Lacreek NWR played a key role in the restoration of the High Plains Flock of trumpeter swans to the Central Flyway. Today, a significant portion of this flock returns to Lacreek each fall. The swans winter on spring-fed streams in the sandhills to the south. The refuge will continue to play a key role as a fall staging and wintering area.

**Federally Listed Threatened and Endangered Species.** The Biological Integrity, Diversity, and Environmental Health Policy (published January 16, 2001, effective April 16, 2001) (<http://policy.fws.gov/library/01fr3809.pdf>) guides System personnel in implementing the clause of the Improvement Act that directs the Secretary of the Interior to ensure that the Service maintain the “biological integrity, diversity, and environmental health” of the System. This policy further guides the Service to consider restoring lost or severely degraded components of the system “where appropriate and in concert with refuge purposes and the System mission.”

The Lacreek NWR staff reviewed all threatened and endangered species with historical ranges on or near the refuge to determine if additional actions could be taken to restore or enhance habitat for endangered species. Only the blowout penstemon (*Penstemon haydenii*) was determined

to be appropriate for restoration actions.

**Predators.** The predator community on Lacreek NWR is diverse, ranging from coyotes and short-tailed weasels to bald eagles and kestrels. This array of predators helps maintain the “biological integrity, diversity, and environmental health” of the refuge. Several species, including striped skunks and raccoons, are found at higher than historical levels due to modifications of habitat. These species can impact migratory bird populations and reduce the likelihood of reaching goals and objectives outlined for the refuge, primarily by depredating the nests of an array of grassland nesting bird species.

