

CRANE MEADOWS NATIONAL WILDLIFE REFUGE
Morrison County, Minnesota

CONCEPTUAL
MANAGEMENT
PLAN



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CONCEPTUAL MANAGEMENT PLAN
CRANE MEADOWS NATIONAL WILDLIFE REFUGE

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**CONCEPTUAL MANAGEMENT PLAN
PROPOSED CRANE MEADOWS NATIONAL WILDLIFE REFUGE
MORRISON COUNTY, MINNESOTA**

INTRODUCTION

This management plan for the proposed Crane Meadows National Wildlife Refuge (Refuge) (Figure 1) presents a general outline on how the Refuge would be operated and managed. As a conceptual plan, it does not provide extensive detail, pinpoint exactly where facilities would be, or show where public use would be allowed. Those details will be included in formal Refuge management planning with input from the public and in accordance with the National Environmental Policy Act, as well as the compatibility requirements in the National Wildlife Refuge System Administration Act and the Refuge Recreation Act. However, this plan should answer those questions commonly posed by landowners and the general public during the entire planning and public involvement process.

I. GOALS OF THE NATIONAL WILDLIFE REFUGE SYSTEM

- *To preserve, restore, and enhance in their natural ecosystems (when practicable) all species of animals and plants that are endangered or threatened with becoming endangered.*
- *To perpetuate the migratory bird resource.*
- *To preserve a natural diversity and abundance of fauna and flora on refuge lands.*
- *To provide an understanding and appreciation of fish and wildlife ecology and man's role in his environment, and to provide refuge visitors with high quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent these activities are compatible with the purposes for which the refuge was established.*

II. REFUGE ADMINISTRATION

The proposed Crane Meadows National Wildlife Refuge would be part of the National Wildlife Refuge System. The Northcentral Regional Office is located in the Twin Cities, Minnesota, and would provide oversight of

Refuge administration and management. The Regional Office would also provide technical assistance on matters such as engineering, public use planning, and migratory bird management. The proposed Refuge would likely have a permanent, full-time staff of five, consisting of a Project Leader (Refuge Manager), an Assistant Manager or Biologist, a Refuge Assistant (Secretary), a Biological Technician, and a Maintenance/Heavy Equipment Operator. Temporary employees during the field season could include Biological Aides and high school youth through the Youth Conservation Corps. In addition to technical expertise, refuge staffs are selected on the basis of their abilities to work effectively with the public and neighboring landowners. A Refuge Manager would be the first person to "staff" the Refuge, with additional persons added when and if acquisition proceeds.

An office, shop, and storage facilities would likely be located within the proposed Refuge property. Buildings existing on acquired properties are sometimes used for these facilities or new facilities may be constructed. Refuge offices are generally open from 8 a.m. to 4:30 p.m., Monday through Friday.

The annual budget for the Refuge is estimated to be approximately \$300,000 to cover salaries, equipment maintenance, supplies, and routine equipment and construction material purchases. Large construction projects such as an office, shop facilities, a visitor center, large water control structures, and roads could total \$5 million over a 30 year period, or an average of approximately \$166,000 per year.

III. HABITAT MANAGEMENT

WETLANDS

It is the intention of the U.S. Fish and Wildlife Service (Service) to leave Rice and Skunk Lakes and the surrounding wet meadow/bog area in a natural condition. No large impoundment is planned that would flood the entire wetland complex. No changes are anticipated in the design or operation of the existing dam and outlet structure on the Platte River just below Rice Lake unless detailed wildlife, hydrological, and engineering studies would show that changes are warranted, and the Minnesota Department of Natural Resource (DNR) concurs. All existing Minnesota DNR flowage easements around Rice and Skunk Lakes would be honored.

Outlying fingers or "bays" of the wetland complex would be examined for possible small impoundment construction to increase open water areas for waterfowl and other wildlife. Any of these fingers previously drained would be restored to natural conditions if feasible. All previously drained wetlands or potholes elsewhere within the Refuge boundary would be restored as land acquisition permitted.

Burning, mowing, and haying could be used on some wetlands to remove matted vegetation or to control shrub encroachment. Burning may become an important management tool in the wet meadow/bog area surrounding Rice and Skunk Lakes to reduce tree and shrub encroachment which makes the areas less attractive for sandhill crane nesting. Riverine habitat would be protected from livestock grazing and other intensive uses to reduce or eliminate erosion and subsequent siltation of waters.

Refuge staff would work with private landowners in the Rice and Skunk Lakes watershed to address any problem areas decreasing water quality. This work would be voluntary on the part of landowners.

GRASSLANDS

Grasslands are managed to promote vigorous growth and diversity in terms of density and height. Areas of native prairie in the proposed Refuge would be periodically burned to retard encroaching shrubs, trees, and tame grasses such as brome and Kentucky bluegrass. Burning would generally be done in the spring. Other fields dominated by tame grasses would be burned or hayed to remove excess plant litter and stimulate growth. Cattle grazing could be employed on both native and tame grasslands with the correct timing and duration. Former landowners and tenants, or adjacent landowners are usually offered the opportunity to hay or graze.

Some tame specie grasslands may be put in a ten year rotation. In this rotation, the areas are broken-out, cropped for two to three years, then reseeded to grasses. The process is repeated in ten years as the grasses and legumes begin to lose vigor. Again, former landowners, tenants, or adjacent landowners are usually offered the opportunity to do the cropping portion of the rotation.

CROPLANDS

Most existing cropland would be converted to grassland after acquisition. A few hundred acres of cropland may remain to provide forage areas for sandhill cranes, other migratory birds, and resident wildlife. Any farming on these areas would generally be done by area farmers through cooperative agreements. Service policy is that former landowners and tenants have preference for cooperative farming on Service lands. At times payment is in cash, but most often crop shares are offered as compensation; generally averaging 75 percent to the cooperator and 25 percent to the Service.

WOODLANDS

Woodland management could employ a number of practices including burning, harvesting, seedling planting, or no management depending on the particular objective of each area. A Service or State forester would be called upon to offer expert planning in the management of Refuge woodlands.

IV. POPULATION MONITORING

Since the primary purpose for establishing a national wildlife refuge is wildlife, extensive surveys are conducted yearly to track population trends. This information is the basis for habitat management decisions. Surveys could include: waterfowl migration counts; nesting surveys to determine densities and success; breeding bird surveys; aerial counts of deer, beaver lodges, or muskrat houses; and banding and marking.

Many surveys would be done in cooperation with the Minnesota DNR to tie into their existing data bases. Also, college, university, or other agency research would be encouraged to find out more information on both plant and wildlife species.

V. PUBLIC USE OPPORTUNITIES AND MANAGEMENT

Wildlife and wildlands oriented public use is generally encouraged on national wildlife refuges as long as it is compatible with the primary resource purposes of the refuge. Public use opportunities would be varied and include both consumptive (hunting, fishing, berry picking, etc.) and non-consumptive uses (photography, birdwatching, auto touring, etc.)

Due to the interest in public use opportunities, each activity is discussed below. General public use regulations, based on the National Wildlife Refuge System Administration Act, are shown in Table 1.

Table 1. General Refuge Regulations Common to Many National Wildlife Refuges

- Public entry is permitted year around in those areas shown in the Refuge leaflet and marked by appropriate signs.
- Vehicles are allowed only on main roads and trails where gates are open.
- Parking is prohibited in front of closed gates or in a manner that blocks Refuge roads or trails.
- Use of the Refuge for any activity is limited to daylight hours only. No camping or overnight parking is permitted.
- Possessing or discharging firearms is prohibited except during established hunting seasons in areas open to hunting.
- Disturbing or collecting any plant or animal is prohibited except under special permit. Berry and mushroom picking is allowed in designated areas.
- No person may search for, disturb, or remove from the Refuge any Indian artifact or other historical object.
- Directing the rays of any artificial light for the purpose of spotting, locating, or taking any animal is prohibited.
- Entering or remaining on the Refuge while under the influence of alcohol or other drugs is prohibited.
- Fires are allowed only in fireplaces at picnic areas (if there are any).
- Dogs and other pets must be kept under control at all times.

ACCESS

State, county, and township roads that traverse the Refuge would remain open to public traffic. Driveways, private roads, and trails are generally closed once a given tract is acquired. Some areas on refuges are sanctuary areas and are off limits to visitors. However, large blocks of a refuge are usually open for access by foot, skis, canoe, or other non-motorized means.

The needs of physically challenged persons would be considered during access planning for any Refuge activity or facility. Signs and leaflets would clearly indicate the open and closed areas of the Refuge. All Minnesota DNR Wildlife Management Areas within the Refuge boundary would remain open to current uses. The Service intends to keep these areas open in the future if they become part of the Refuge through cooperative agreement with the Minnesota DNR. Access to lands remaining in private ownership within the proposed Refuge will be maintained.

A small use fee is required to enter and use some national wildlife refuges. It is not anticipated that any fee system would be used at the proposed Crane Meadows National Wildlife Refuge.

HUNTING AND TRAPPING

Hunting of waterfowl, small game, and white-tailed deer would be permitted in accordance with State regulations and licensing requirements. Areas open would depend on the outcome of management planning done with public input. On most refuges open to waterfowl hunting, sanctuary areas are established to provide undisturbed resting areas during the fall migration. It is the intent of the Service to keep Rice and Skunk Lakes open to waterfowl hunting. Boats would be permitted for waterfowl hunting, but the use of motors on boats (or motor size restrictions) would be explored during detailed planning. The Refuge could become a separate management area for deer hunting similar to other national wildlife refuges in Minnesota.

Furbearer trapping could be permitted, although regulations are often more restrictive than State regulations. Generally, trapping is limited to a few individuals selected on the basis of a bid system or random drawing.

FISHING

Fishing would be permitted on Rice and Skunk Lakes and the Platte River in accordance with State regulations and license requirements. Boats would be permitted, but like waterfowl hunting, the use of motors (or motor size restrictions) on these areas would be explored during detailed planning. The trapping of minnows, leeches, or other common bait species is sometimes allowed, but only under a special use permit issued by the Refuge Manager. Likewise, permits would be required for the harvest of snapping turtles.

BOATING, CANOEING, HIKING, CROSS-COUNTRY SKIING, AND OTHER USES

Speed boating and waterskiing would probably not be allowed due to their disturbance to wildlife and vegetation which supports fish and wildlife. Motor vehicles would not be permitted off-road. Use of ATVs and snowmobiles would probably be restricted on the Refuge. Their use, or no use, would be explored during detailed management planning involving public input.

Many wildlife and wildlands oriented activities would be encouraged including hiking, photography, cross-country skiing, canoeing, and birdwatching. A designated hiking and skiing trail system would be established and maintained. A self-guided auto tour covering several miles may be established.

ENVIRONMENTAL EDUCATION AND INTERPRETATION

Environmental education and interpretive programs would be designed to enhance the visitor's understanding of natural resource management programs and ecological concepts. The Refuge would serve as an important "outdoor classroom" for area school districts. Teacher workshops would likely be offered to enhance ongoing environmental education programs. Visitor facilities would be planned with the needs of students and teachers in mind. Interpretive programs would focus on self-guiding facilities such as auto tour routes, signed trails, leaflets, and interpretive signs along interesting features. If a visitor center is built it would likely contain an auditorium for slide and film presentations, exhibits, a classroom/meeting room, and a bookstore offering natural resource materials to the public.

LAW ENFORCEMENT

Enforcement of State and Federal laws on national wildlife refuges is important to safeguard resources and protect and manage visitors. Two or more refuge staff people usually have law enforcement training and authority. Refuge Officers would work closely with Minnesota DNR Conservation Officers and complement their efforts.

VI. FACILITIES MANAGEMENT

Buildings on land acquired for refuges are sometimes used for administration and management. If the buildings are not suitable for refuge use, they are generally transferred to other refuges or agencies, or sold to the general public. However, under either option the buildings are moved from the refuge. If the buildings have nominal value they would probably be demolished, the debris buried, and the site returned to natural conditions. Buildings determined to have historical significance would be preserved as funding permits.

Boundaries of any lands acquired would be posted with national wildlife refuge signs at regular intervals to allow the public to know where the specific boundary is. Barbed wire fencing or other types of barriers are often constructed to keep out livestock (or keep them in if grazing is selected as a management tool) and control off-road vehicle use which damages habitat.

The Refuge would cooperate with State, County and township officials in the maintenance of roads that cross the Refuge. Roadside mowing would be completed in accordance with State and local laws. Some township roads may be suited for abandonment (but not necessarily closure) and their maintenance assumed by the Refuge. Any such abandonments would only be with the consent of the appropriate governing body.

VII. MISCELLANEOUS

FIRE MANAGEMENT

It is the policy of the Service to use fire when it is the most appropriate management tool for reaching habitat objectives. For example, a prescribed fire in the bog surrounding Rice and Skunk Lakes can serve to create open water areas and remove encroaching shrub habitat that sandhill cranes avoid when nesting. Wildfires, however, would be aggressively suppressed unless such natural fires are a part of an approved fire management plan.

Refuges generally have staffs trained in fire management and an array of equipment for fire suppression. To supplement these capabilities, cooperative agreements and contracts with State agencies and township fire departments are usually put together to tap local firefighting expertise. This is especially important for structure fires since local fire departments have special training and experience in this type of fire fighting.

CROP DEPREDATIONS, OTHER PEST CONTROL

The Refuge staff, in cooperation with the Minnesota DNR, would provide technical advice to landowners surrounding the Refuge if crop losses occur from migratory birds, deer, or other Refuge wildlife. The U.S. Department of Agriculture has an Animal Damage Control Division that can provide more direct assistance. Beaver activities that threaten public roads on the Refuge would generally be handled directly by the Refuge staff in coordination with the Minnesota DNR.

It is Service policy to control those weeds listed as noxious by the State. This control would emphasize non-chemical methods and would be directed to keeping noxious weeds from spreading to adjacent private farmland.