

Appendix C: Conceptual Management Plan

CONCEPTUAL MANAGEMENT PLAN

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Introduction

Alternative E, the preferred alternative for action, includes the possibility of creating one or more waterfowl production areas (WPAs) within the Fairfield Marsh study area. The following Conceptual Management Plan (CMP) was developed as a general guideline for how these proposed WPAs would be managed if established. The CMP does not present extensive detail about where facilities would be located, the timing of restoration actions, new hunting opportunities, etc. All of these details would be a part of a future Comprehensive Conservation Plan developed for the Leopold Wetland Management District with public input and in compliance with the National Environmental Policy Act, Service policies and the National Wildlife Refuge Improvement Act. However, this CMP does attempt to answer some basic questions that may be posed by area landowners and others about future management. Please see the Environmental Assessment for more details about the study area and existing land uses.

Goals of the proposed Fairfield Marsh Conservation Partnership:

- To preserve and restore a natural diversity and abundance of fish, wildlife and plants to the area while complimenting existing habitats on adjacent conservation areas and private lands.
- To conserve, enhance and restore habitats capable of supporting a diversity of migratory birds native to the area.
- To preserve, enhance, and, where feasible, restore all species of animals and plants native to the area that are endangered, or threatened with becoming endangered.
- To provide visitors with high quality wildlife-dependent recreational experiences to the extent these activities are compatible with resource conservation, restoration and enhancement purposes.
- To provide visitors with an understanding and appreciation of the natural world, and the human role in the environment, in the spirit of the writings and works of Aldo Leopold.

Management

Management refers to all aspects of operations including habitat restoration, equipment, personnel, facility maintenance and visitor services.

A. Water Management

Water management is a crucial component of fish and wildlife habitat restoration. Generally, water management involves restoring historic wetland basins and controlling water levels. Artificial control by humans can mimic the natural cycles to promote habitat for all living creatures. The conversion of agriculture fields to shallow water impoundments or restored wetlands is accomplished by using the same equipment that was used to drain the wet areas for agriculture. Ditches are filled, tile lines are plugged or removed and water control structures are installed.

Stream restoration is a scientific process to convert and restore the water course to the creek's original state. The Leech Creek water course was altered to a

straightened, channelized drainage ditch circa 1911. The natural hydrology and ecological dynamics were changed to facilitate agriculture production. The result of draining the Fairfield Marsh has degraded the biological diversity and integrity of the landscape.

B. Upland Management

Another major component of land management is managing grasslands, cropland, and forests. Wetland managers and biologists have extensive backgrounds in restoring and enhancing the landscape for wildlife and their habitats. Habitat diversity will ultimately be addressed to ensure healthy populations of wildlife, especially the declining species of grassland and forest-dwelling birds and animals. Where appropriate, a mosaic of habitats comprised of restored native prairie grasslands, forests, and croplands as well as wetlands will serve wildlife a smorgasbord of food, water, shelter, and space.

Grasslands are restored by planting a mixture of native seeds and forbs. This mixture may include species such as big and little blue stem, switchgrass, side-oats gramma, Indian grass, black-eyed susans, cone flowers, prairie clover, etc.

Currently, croplands including cultivated row crop fields, alfalfa and pasture encompass about one-half of the study area. The cultivated fields are planted to corn, soybeans, or specialty crops such as mint, onions, carrots, potatoes, or celery. The Service does recognize the importance of agriculture in this ecosystem. Nevertheless, agricultural ecosystems, particularly modern, intensively farmed areas, generally do not in themselves provide for the life requisites of native wildlife. Agricultural ecosystems reduce the diversity of native plants. In fact, landscapes dominated by agricultural ecosystems tend to have less diversity of all plant and animal life. Conversion of some of the row crop area by private landowners to a grazing or haying regime would significantly increase wildlife diversity.

Forests or wooded areas are scattered throughout the study area. One area of significance, a tamarack swamp is located in the northwestern corner. Small areas of oak savanna and oak forest also occur in the vicinity.

C. Maintenance of Current Drainage Patterns

It is Service policy not to impede the flow of waters from other lands, even if such flow passes through lands acquired. The Service's intent is to have no impact on drainage from neighboring lands and to follow state laws regarding drainage activities. Service staff work with adjacent landowners and drainage districts to ensure that existing drainage facilities or patterns are not negatively impacted by our restoration activities. Detailed hydrologic designing will be undertaken for all water-related activities on Service lands to ensure that Service activities do not alter drainage in any way that would cause flooding or drainage problems to private lands.

The Service would not cause any artificial increase of the natural level, width, or flow of waters without ensuring that the impact would be limited to lands in which the Service has acquired an appropriate realty interest from a willing seller (e.g., fee title ownership, flowage easement, cooperative agreement). The Service would comply with all Federal and state regulations regarding development, some of which are specifically intended to ensure that the actions of one landowner do not adversely affect another. If Service activities inadvertently

created a water-related problem for any private landowner (flooding, soil saturation or deleterious increase in water table height, etc.) the problem would be corrected at the Service's expense.

Throughout the Service's Partner's for Fish and Wildlife Program, the Service has restored over 10,000 wetland in the Great Lakes - Big Rivers Region, which includes Wisconsin. The expertise gained through this experience and by coordinating with partners like the North American Waterfowl Management Plan, the Wisconsin Department of Natural Resources, the Natural Resource Conservation Service, and others, will help us achieve the wetland goals of these WPAs and not adversely effect others. The Lower Baraboo Drainage District covers a large portion of the study area. Drainage districts are local government districts, which are organized to drain lands for agriculture or other purposes. Land is drained by drainage ditches which cross individual property boundaries. Landowners in a district who benefit from drainage must pay assessments to cover the cost of constructing, maintaining, and repairing the drainage system. The Service will coordinate any management activities that may effect the current drainage pattern with county boards or the drainage district.

D. Fire Management and Fire Suppression

Fire has been a part of natural ecosystems since the origin of plant communities on earth. Fire management is a useful tool for managers to stimulate native prairie grasses, reduce woody and undesirable vegetation, and "setback" ecological succession. The role of fire has proven itself when alternative management tools are environmentally unacceptable (example: chemical treatments), are not effective, or are too expensive. Safety aspects of using prescribed fire are uppermost on everyone's minds. For this reason, biologists and managers are extensively trained and use special equipment for any prescribed fire or controlled burning. The Service's Wetland Management Districts generally have their own fire equipment including such items as pumper units, hand tools, drip torches and radio systems. Fire management plans specify the parameters for who, when, why, where, and how the burn will be conducted. Smoke management and contingency plans are described in detail. Every effort for the protection of life and property is made during planning and fire activities.

Wildfires, on the other hand, are unplanned fires that are caused by lightning strikes, railroads, humans, etc. that require quick response from professional fire fighters. The fire management plan addresses wildfire initial attack and incident response. Cooperative agreements coordinated with local and volunteer fire departments are arranged before a need arises.

Law Enforcement

Law Enforcement is a cooperative effort by several agencies. Some Service employees are commissioned to conduct law enforcement duties on Federal property and enforce certain Federal laws. Cooperative agreements are executed with state conservation wardens and county sheriff departments.

WPA Administration

The Service currently operates two wetland districts within the state of Wisconsin. The Leopold Wetland Management District, based in Mayville, would receive management responsibility for any new WPAs in Sauk and Columbia counties.

The District currently manages 45 WPAs in south central Wisconsin. The complexity of habitat management and administration increases with large parcels of land. It is possible that a future regional group of WPAs could be assigned its own funding, equipment, and staff. Speaking very generally, a fully staffed district office responsible for 10,000-plus acres would have about six staff members and an annual operating budget of approximately \$600,000.

Public Use Opportunities and Management

The following is a discussion of potential recreational opportunities that may be available to the public if WPAs are established in the project area. We do not describe public use activities in detail, or pinpoint exact locations of facilities or access points that will be needed to facilitate public uses. Rather, this discussion will paint a general picture of the kinds of activities the public can expect to enjoy, and the approximate locations where these activities would occur. Decisions about exact locations for facilities and programs will be made with public input, and will be described in detail in a future Comprehensive Conservation Plan.

While waterfowl production areas are managed first and foremost for the conservation of fish, wildlife, and plants, through careful planning and regulation, WPAs can provide the public with a variety of diverse and rewarding opportunities for wildlife dependent recreation. Wildlife-dependent recreation includes hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. These are the priority public uses of waterfowl production areas. Through participation in these activities, visitors will gain an appreciation for healthy habitats and the fish and wildlife populations they support.

A. Hunting

All WPAs are open for hunting during legal hunting seasons. Hunting could be permitted as soon as sufficient lands and public access points are acquired. Hunter access parking lots could be located at several convenient and safe locations. Information and regulation signs would be posted at these access points.

B. Fishing

Fishing could be permitted as soon as sufficient lands and public access points are acquired. The restoration of Leech Creek to its original meandering channel would be a major habitat improvement activity that will also lead to expanded trout fishing opportunities. At least one accessible bank fishing area could be developed along either Leech Creek or the Baraboo River, depending on local site requirements, and fishery resources. Wetland district staff would cooperate with the Wisconsin DNR in all aspects of fishery improvements and restoration efforts.

C. Wildlife Observation & Photography

Restored wetlands in the study area will contain scenic vistas of a rural landscape, with forest, prairies and fields, lying at the foot of the Baraboo Hills. Wildlife inhabiting the restored habitats will include waterfowl, cranes, shorebirds and songbirds. The combination of diverse wildlife and landscape beauty will create excellent wildlife observation and photography opportunities.

D. Interpretation

The WPAs within the Fairfield Marsh project area would be used to help convey important environmental concepts including: Aldo Leopold's land ethic; the cooperative relationship of wildlife conservation and agriculture, wildlife habitat restoration; and the natural and geologic forces that shaped the Baraboo Hills and formed the Fairfield Marsh landscape.

These themes will be the core messages of the interpretive program, and will be included in different forms of interpretive signs, leaflets, and possibly exhibits.

E. Environmental Education

The proposed Fairfield March project would encourage partnerships between the Aldo Leopold Foundation, International Crane Foundation, the Leopold Education Project, the Baraboo School District and other local schools, state and local organizations and private landowners to provide site-based learning about Leopold's land ethic and the restoration of habitat for wildlife and people, and the benefits of landowner conservation initiatives to wildlife. Outdoor classroom sites would be developed for the delivery of environmental education lessons and activities based on the Leopold Education Project. The Leopold Education Project promotes a nationwide curriculum for teachers and others to help instill a land ethic among tomorrow's stewards. Partnership projects could include on-site visits to WPAs and conservation/agriculture demonstration areas.

WPA Regulations and Enforcement

Waterfowl production areas are places where the needs of wildlife, especially nesting migratory birds, comes first. Some general uses allowed on other public lands are not appropriate on a WPA, and will not be allowed. The following regulations are typical for most Waterfowl Production Area lands:

- Vehicles are only allowed on designated roads.
- Camping is not allowed.
- Camp or cooking fires are not allowed.
- Some wildlife sensitive areas may be seasonally closed to all public entry and use.
- Horseback riding is not allowed.
- Snowmobiles are not allowed.
- Public use is limited to daylight hours only.
- Possession or discharge of firearms is prohibited except during established hunting seasons in areas open to hunting.
- Dogs and pets must be kept on leash (except while hunting).
- Disturbing or collecting plants or animals is prohibited except under special permit. Berry and mushroom gathering may be allowed in designated areas.
- Searching for, or removal of objects of antiquity or historical importance is not allowed except under permit.

The enforcement of regulations is important to safeguard resources and to protect visitors. Two or more wetland district staff generally have law enforcement authority and work in close cooperation with state conservation officers, and other local enforcement agencies.