



U.S. Fish & Wildlife Service

# Swan Lake *National Wildlife Refuge*

## Alternative 4 Additional Information

September 2010

### Questions About Conservation Planning

Several comments on the Draft Comprehensive Conservation Plan (CCP) released for Swan Lake NWR in June questioned why the Service referred to a “no action” alternative and identified a “preferred alternative.”

Since those same terms are used in this document, here is a brief explanation of them.

#### *Why a “No Action” Alternative?*

The National Environmental Policy Act of 1969, commonly referred to as “NEPA,” specifies an outline for preparing Environmental Assessments. NEPA requires that in addition to other alternatives considered, a “No Action Alternative” is considered. A “No Action Alternative” is defined by NEPA as: “The alternative where current conditions and trends are projected into the future without another proposed action.” So, “No Action” doesn’t mean that Refuge staff do nothing, rather it means that current management practices continue.

#### *Why Identify a “Preferred Alternative”?*

Planning is intended to let people know what we plan to do on a Refuge



Swan Lake NWR. Photo credit: FWS

and approximately when we plan to do it. In addition, the draft CCP is based on the preferred alternative, so unless one is identified in the EA we wouldn’t have an alternative for future management to propose in the Draft CCP

#### *Why a CCP?*

Congress began requiring the Fish and Wildlife Service to prepare a CCP for every refuge in the National Wildlife Refuge System in 1997. While planning for national wildlife refuges has always occurred, the process and

products varied greatly. Comprehensive conservation planning has made plans and the planning process more consistent across the nation. The planning process creates more opportunity for communication by including two stages where the Service asks for public comment: initial scoping of issues and again with release of the Draft CCP

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|  | <b>Alternative 1<br/>(No Action Alternative)</b>   | <b>Alternative 2</b>   | <b>Alternative 3</b>  | <b>Alternative 4<br/>(Preferred Alternative)</b>  |
|--|--|--|---|---|
| Streams and Water Bodies                             | Continue to impound Refuge streams and use Silver Lake as a reservoir to provide water for wetland management across the Refuge.             | Restore Refuge streams to free flowing streams with seasonally fluctuating water levels.             | Mimic components of historic hydrologic function along reaches of Refuge streams. Allow for seasonal and annual variations in water levels within Swan Lake and Silver Lake basins to increase the amount and variety of native vegetation. | No objective under this alternative.  |
| Managed Wetlands<br><u>Silver Lake and Swan Lake</u> | Maintain at least 500 acres and up to 1,000 acres of emergent wetland with a mixture of bulrush and cattails with Silver Lake and Swan Lake. | Maintain approximately 1,200 acres as emergent wetland habitat primarily within the Swan Lake basin. | Maintain at least 1,200 acres and up to 1,800 acres of emergent wetland habitat within the Silver Lake and Swan Lake basins.  | Prepare a habitat management plan that provides guidance on managing water levels to increase the amount of native foods for waterfowl within the Silver Lake and Swan Lake basins. The habitat management plan will draw on the results of an ongoing hydrogeomorphic study that considers wetlands, soils, and water movement within the Lower Grand River watershed. Actions would be implemented in stages and monitored for success to modify future actions to better meet stated outcomes. |

|   | <b>Alternative 1<br/>(No Action Alternative)</b>   | <b>Alternative 2</b>  | <b>Alternative 3</b>   | <b>Alternative 4<br/>(Preferred Alternative)</b>  |
|---|--|---|--|---|
| Managed Wetlands<br><u>Moist Soil Areas</u> | Manage about 800 acres using moist soil management techniques ensuring at least 10 percent is available as mud flat habitat for migrating shorebirds.          | No moist soil management.   | Use moist soil techniques to manage emergent wetlands at locations and an amount to be determined after the completion of an ongoing hydrogeomorphic evaluation. Ensure that up to 25 percent of the acreage is available as mud flat or shallow water unvegetated habitat in the spring and up to 10 percent is available in the fall for migrating shorebirds. | Use moist soil techniques to manage about 800 acres at locations to be determined in a habitat management plan that draws on the results of an ongoing hydrogeomorphic study that considers wetlands, soils, and water movement within the Lower Grand River watershed. |
| Shrub Swamp                                 | Maintain 300 to 500 acres of shrub swamp dominated by buttonbush and willow.   | Maintain up to 70 acres of shrub swamp dominated by buttonbush and willow.  | Same as Alternative 1.   | Same as Alternative 1.  |
| Wet Meadow                                  | Maintain wet meadow habitat at present levels (110 acres).   | Convert approximately 4,000 acres of existing cropland, open water, emergent wetland and other habitats to wet meadow.                                    | Convert approximately 530 acres of existing cropland; food plots; areas of dense young forest, and areas dominated by reed canary grass to wet meadow.   | Increase the amount of wet meadow by converting suitable sites presently in other cover types such as cropland, food plots, areas of dense young forest, and areas dominated by reed canary grass.  |
| Native Prairie                              | Maintain existing grasslands at present levels (1,000 acres) and species mix.  | Convert approximately 950 acres of existing cropland to native prairie, and maintain a diverse floral community within converted and existing grasslands. | Convert approximately 835 acres of existing cropland or food plots to native prairie, and maintain a diverse floral community within converted and existing grasslands.  | Increase the amount of native prairie by converting suitable sites presently in other cover types such as cropland, food plots, areas of dense young forest, and areas dominated by reed canary grass.  |
| Cropland                                    | Maintain existing amount (1,365 acres) of cropland annually leaving at least 30 percent and up to 100 percent of planted crops as food and cover for wildlife. | Convert all existing cropland (1,365 acres) to native habitats.   | Convert all existing cropland (1,365 acres) to native habitats.  | Convert 1,000 acres of the existing 1,365 acres of cropland to native habitats.   |

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|---|--|--|---|--|
| Bottomland Forest                           | Maintain existing bottomland forest (3,100 acres) and ensure that 20 percent of stands are comprised of selected oak species.                          | Increase the amount of bottomland forest from 3,100 acres to 3,800 acres.  | Same as Alternative 1.  | Same as Alternative 1.                           |
| Watershed Conservation                      | Quantify water needs and available water sources necessary to meet Refuge management objectives and improve water quality within Refuge source waters. | Same as Alternative 1.   | Same as Alternative 1.  | Same as Alternative 1.                           |
| Outlying Fee Title Properties and Easements | Maintain existing methods for managing or monitoring outlying fee title properties and easements.  | Develop a strategy for ensuring the condition and management of outlying fee title properties and easements.   | Develop a strategy for ensuring the condition and management of outlying fee title properties and easements.                        | Same as Alternative 3.                           |
| Threatened and Endangered Species           | Continue monitoring bald eagle numbers via Missouri Department of Conservation surveys.  | Implement a program to monitor all federally threatened and endangered species on the Refuge and assist with monitoring of State listed threatened and endangered species. | Implement a monitoring program to track abundance, population trends, and/or habitat associations of selected species.              | Same as Alternative 3.                           |
| Migratory and Resident Birds                | Monitor waterfowl numbers bi-weekly during duck hunting season via Missouri Department of Conservation bi-weekly waterfowl counts.                     | Conduct weekly counts of waterfowl and shorebirds during migration.  | Monitor migratory bird species with emphasis on waterfowl and shorebirds.   | Same as Alternative 3.                           |
| Eastern Massasauga Rattlesnake              | Provide habitat suitable to support a viable population of the eastern massasauga rattlesnake.   | Same as Alternative 1.   | Same as Alternative 1.  | No objective under this alternative.             |
| Welcoming and Orienting Visitors            | Provide an unstaffed point of contact 7 days a week year-round.  | Provide a staffed point of contact most business days during normal working hours year-round.  | Provide a staffed point of contact during normal working hours year-round on business days and seasonally on holidays and weekends. | Same as Alternative 3.                           |

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|--------------------------------------|---|--|---|--|
| Hunting                              | Continue to offer goose hunting and managed deer hunts (including opportunities for disabled hunters).  | Same as Alternative 1, but also within 2 years of CCP approval, propose changes to Refuge regulations (as part of a formal opening package) that includes introducing duck hunting and small game hunting, and emphasize opportunities for youth and disabled hunters. | Same as Alternative 2.  | Same as Alternative 2.                           |
| Fishing                              | Continue to provide existing facilities for shore and boat fishing.   | Stream fishing only in accordance with state and Refuge regulations. Silver Lake basin is restored as a stream channel.  | Fishing opportunities within Silver Lake basin are dependent on seasonal and annual water levels.   | Same as Alternative 3.                           |
| Wildlife Observation and Photography | Continue to provide existing opportunities for wildlife observation and photography by allowing access to the entire Refuge from mid-March through mid-October. | Same as Alternative 1, but also allow visitors limited access to selected portions of the Refuge from mid-October through the end of February.   | Same as Alternative 2.  | Same as Alternative 2.                           |
| Interpretation                       | Provide unstaffed interpretive facilities 7 days a week year-round.   | Provide staffed interpretation facilities most business days during normal working hours year-round.   | Provide staffed interpretive facilities during normal working hours year-round on business days, and seasonally on holidays and weekends. | Same as Alternative 3                            |
| Environmental Education              | Develop an environmental education site that includes an outdoor classroom.   | Same as Alternative 1.   | Same as Alternative 1.  | Same as Alternative 1.                           |
| Other Compatible Recreation and Uses | Provide compatible opportunities for gathering mushrooms, berries, and antlers for personal use.  | Same as Alternative 1.   | Same as Alternative 1.  | Same as Alternative 1.                           |

|  | <b>Alternative 1<br/>(No Action Alternative)</b>  | <b>Alternative 2</b>  | <b>Alternative 3</b>  | <b>Alternative 4<br/>(Preferred Alternative)</b> |
|--|---|---|---|--|
| Friends and Volunteers                           | Continue to provide current level of volunteer opportunities (approximately 625 hours annually).  | Continue to develop the Refuge Friends group and maintain existing level of volunteer opportunities (625 hours annually).   | Continue to develop the Refuge Friends group and provide volunteer opportunities that total at least 1,000 hours annually.          | Same as Alternative 3.                           |
| Outreach   | Continue to speak to local groups upon request (up to 2-3 times per year), provide information and interviews for local and outdoors media and distribute news releases 2-3 times annually. | Continue to speak to local groups upon request (up to 4-6 times per year), provide information and interviews for local and outdoors media and distribute news releases 4-6 times annually. | Increase local community support and appreciation for fish and wildlife conservation and endorse the Refuge's role in conservation. | Same as Alternative 3.                           |
| Archeological, Cultural, and Historic Protection | Avoid and protect or mitigate against disturbance of all known cultural, historic, or archeological sites.  | Same as Alternative 1.  | Same as Alternative 1.  | Same as Alternative 1.                           |

## Objectives Under Alternative 4

### Objective 1-1: Managed Wetlands

#### Silver Lake and Swan Lake

Over the 15-year life of the plan, increase the amount of native foods for waterfowl within the Silver Lake and Swan Lake basins by managing water levels to create or maintain a dense mixture of native aquatic and wetland plants that includes both emergents and submergents (for example wild millet, panic grass, smartweed, sedges, and pondweed). Within 3 years of plan approval, develop a detailed habitat management plan for achieving this objective that draws on the results of a hydrogeomorphic study of the watershed. The habitat management plan will identify source water storage and management actions with measurable outcomes regarding things such as vegetation response and waterfowl numbers. These management actions will be implemented incrementally and monitored to measure success and to modify future actions to better meet stated outcomes.

#### Moist Soil Areas

Over the life of the Plan, manage approximately 800 acres using moist soil techniques at locations to be determined in a habitat management plan that draws upon the results of an ongoing hydrogeomorphic evaluation. Manage moist soil areas to provide a diversity of native herbaceous plant foods such as wild millet (*Echinochloa* spp.); panic grass (*Panicum* spp.); smartweed (*Polygonum* spp.); sedges (*Cyperus* spp. and *Carex* spp.); and beggarticks (*Bidens* spp.), and ensure that up to 25 percent of the acreage is available as mud flat or shallow water (6 inches or less) unvegetated habitat in the spring and up to 10 percent of the acreage is available as mud flat or shallow water habitat with less than 50 percent cover in the fall for migrating shorebirds.

### Objective 1-3 Shrub Swamp

Over the life of the plan, maintain 300 to 500 acres of shrub swamp dominated by at least 50 percent areal coverage of buttonbush and willow.

### Objective 1-4 Wet Meadow

Over the 15 year life of the plan, increase the amount of wet meadow by converting suitable sites presently in other cover types such as cropland; food plots; areas of dense early successional forest largely comprised of willow; buttonbush, and silver maple; and areas dominated by reed canary grass. Wet meadow is comprised of sedges (e.g. *Cyperus* spp. and *Carex* spp.), prairie cordgrass (*Spartina pectinata*), and forbs (e.g. *Asclepias* spp., *Polygonum* spp., *Vernonia* spp., *Solidago* spp., *Bidens* spp., *Ambrosia* spp., *Rudbeckia* spp.).

### Objective 1-5 Native Prairie

Over the 15 year life of the plan, increase the amount of native prairie by converting suitable sites presently in other cover types such as cropland or food plots. Maintain a diverse floral community within converted and existing grasslands composed of at least 50 percent of native prairie plant species identified for this area.

### Objective 1-6 Cropland

Over the 15-year life of the plan, gradually convert 1,000 acres of cropland to native vegetation, with approximately 400 acres of cropland remaining by year 15 located on suitable sites least affected by flooding. Also, continue to use farming as a tool to reduce undesirable vegetation and set back succession as needed within moist soil areas.

### Objective 1-7 Bottomland Forest

Over the long term (100-200 years), maintain the existing amount (approximately 3,100 acres) of bottomland hardwood stands with a mosaic of age and structural classes distributed across a narrow elevation gradient with lower elevations dominated by black willow, silver maple,

and river birch, mid elevations dominated by pin oak, swamp white oak, red maple, green ash, sycamore, and cottonwood, and upper elevations dominated by other oaks, hickory, and pecan. Within 10 years of Plan approval ensure that approximately 20 percent of stands are converting to red oak species, willow oak and their associates based on regeneration surveys.

### Objective 1-8 Watershed Conservation

Within 5 years of Plan approval, quantify water needs and available water sources necessary to meet Refuge management objectives. Also, over the life of the Plan, maintain or improve water quality within Refuge source waters to meet Refuge management objectives and comply with current standards of the Environmental Protection Agency and Missouri Department of Natural Resources.

### Objective 1-9 Outlying Fee Title Properties and Easements

Within 5 years of Plan approval, develop a strategy for ensuring that the condition and management of outlying fee title properties and easements are in compliance with Service direction.

### Objective 2-1: Threatened and Endangered Species

Within 5 years of Plan approval, implement a monitoring program to track abundance, population trends, and/or habitat associations of selected species to guide future management of habitats important to these species.

### Objective 2-2 Migratory and Resident Birds

Within 5 years of Plan approval, implement a monitoring program to track abundance, population trends, and/or habitat associations of migratory bird species with emphasis on waterfowl and shorebirds. Link monitoring to management information needs and to species or habitats of concern or special interest.

**Objective 3-1: Welcoming and Orienting Visitors**

Within 10 years of Plan approval, provide a staffed point of contact during normal working hours year round on business days and seasonally on holidays and weekends to accommodate up to 50,000 visitors annually.

**Objective 3-2: Hunting**

Maintain existing hunting opportunities, and within 2 years of CCP approval, propose changes to Refuge regulations (as part of a formal opening package) that includes introducing duck hunting and small game hunting, and emphasize opportunities for youth and the disabled. Within 7 years of approval of the Plan, reliably determine the number of hunting visits to the Refuge and that at least 85 percent of hunters judge that they are being provided a quality opportunity.

**Objective 3-3: Fishing**

Over the life of the Plan, provide access for fishing in accordance with state and Refuge regulations.

**Objective 3-4: Wildlife Observation and Photography**

Provide quality wildlife observation and photography opportunities by continuing to allow visitors access to the entire Refuge from early March through late October, and by allowing visitors limited access to selected portions of the Refuge during closed periods.

**Objective 3-5: Interpretation**

Within 10 years of Plan approval, provide staffed interpretive facilities during normal working hours year round on business days and seasonally on holidays and weekends.

**Objective 3-6: Environmental/Conservation Education**

Within 5 years of Plan approval, develop an environmental education site that includes an outdoor classroom. Once the site is developed, eighty percent of educators using the site

annually report it supports their curriculum and helps in promoting resource stewardship and conservation.

**Objective 3-7: Other Compatible Recreation and Uses**

Over the life of the Plan, provide compatible opportunities for gathering mushrooms, berries, and antlers for personal use.

**Objective 3-8: Friends and Volunteers**

Over the life of the Plan, continue to develop the Friends group and provide volunteer opportunities that total at least 1,000 hours annually.

**Objective 3-9 Outreach**

Within 3 years of approval of the Plan increase local community support and appreciation for fish and wildlife conservation and endorse the Refuge's role in conservation.

**Objective 3-10 Archeological, Cultural, and Historic Protection**

Over the life of the Plan, avoid and protect or mitigate against disturbance of all known cultural, historic, or archeological sites.