

DRAFT COMPATIBILITY DETERMINATION

Use:

Agriculture and Weed Management – Cooperative Farming Activities

Refuge Name:

Optima National Wildlife Refuge

County:

Texas County, Oklahoma

Establishing and Acquisition Authority(ies):

The Optima National Wildlife Refuge (Refuge) was established under provisions of the Fish and Wildlife Coordination Act (16 USC 664), Migratory Bird Conservation Act (16 USC 715d), and the Refuge Recreation Act (16 USC 460 k-1). By cooperative agreement, administration of 4,333 acres of land was transferred from the U.S. Army Corps of Engineers (Corps) to the U.S. Fish and Wildlife Service on March 24, 1975.

Refuge Purpose(s):

- The refuge “shall be administered by him [Secretary of the Interior] directly or in accordance with cooperative agreements ... and in accordance with such rules and regulations for the conservation, maintenance and management of wildlife, resources thereof, and its habitat thereon, ...” (16 USC 664, Fish and Wildlife Coordination Act).
- The refuge shall be administered “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” (16 USC 715d, Migratory Bird Conservation Act).
- The refuge is “suitable for – (1) incidental fish and wildlife oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ...” (16 USC 460 k-1, Refuge Recreation Act). “... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ... “(16 USC 460k, Refuge Recreation Act [16 USC 460k-460k-4], as amended).

National Wildlife Refuge System Mission:

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the

benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1996, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

(a) What is the use?

Cooperative farming is utilized to manage a portion of the Refuge's croplands. Approximately 363 acres of croplands on the Optima National Wildlife Refuge (NWR) are farmed to provide food for wildlife. Mowing, haying, and chemical application are utilized to control invasive plant species and discourage the proliferation of non-beneficial plants.

(b) Where is the use conducted?

Although the ratio varies somewhat from year to year, approximately 8 percent of the Refuge's total land base is farmed. Farm fields are located in the southwestern portion of the Refuge (see map). Of the 363 acres of croplands, 313 acres are farmed under an Annual Cooperative Farming Agreement, which outlines crops to be grown, crop plant and harvest dates, fields, and acreages. Refuge staff force account farms 50 additional acres of Refuge lands. Crops are rotated but not on a consistent basis.

(c) When is the use conducted?

Haying and mowing occur after August 1 each year to limit disturbance to ground nesting birds and other wildlife. Wheat and rye fields are prepared for planting by plowing throughout the summer as needed to control weeds. Herbicides are applied on a case by case basis. Wheat fields are sown in the fall, usually in late August through September. Wheat harvest occurs in June or July. Force account rye fields are mowed and plowed in August to establish the seed for the subsequent year's crop. Rye fields are not harvested. Wildlife food plots consist of milo (grain sorghum) and millet and are seeded in late spring/early summer and left standing.

(d) How is the use conducted?

Winter wheat, rye, milo (grain sorghum), and Japanese millet are the primary crops grown. Conventional seeds are utilized exclusively on the Refuge due to past performance and yields. All Refuge farming objectives and the mission of the National Wildlife Refuge System are accomplished through the use of conventional seeds.

Dryland farming practices are used. Low rainfall, combined with high evapotranspiration rates, are limiting factors for crop production. Cropland acreage is left fallow on a rotational basis to build up soil moisture. The sand silt soils are highly erodible. The cooperators are asked to use "soil saving" equipment, including sweep type stubble mulch plows.

Integrated Pest Management practices are employed on the Refuge to control plant pests. Both cooperator and Refuge staff use some chemical herbicides to control

weeds, but chemical application is limited to prevent harm to non-target plants, water quality, or wildlife using Refuge farmed land. Cultivation practices have been adopted that further reduce chemical inputs. A stubble mulch plow is used to sever weed roots below the surface to allow new crops to be drilled through the existing stubble from the previous season. All chemical use must be approved through the Pesticide Use Proposal process. Service policy requires that only minimal amounts of chemicals are used on Refuge lands.

Haying occurs on limited areas planted to domestic grasses, subject to issuance of Special Use Permits. It is used as a management tool to maintain control of invasive species. Haying is also used as a cost efficient means to remove standing vegetation. To mitigate disturbance to ground nesting birds and other wildlife, haying is delayed until August 1.

Mowing is another management tool that is critical in maintaining boundaries, roadways, shoulders, and parking areas. These areas are used by Service personnel and the visiting public alike. Public access is by foot travel only, so maintaining these areas creates safe and dedicated travel corridors. Mowing also discourages non-native and invasive vegetation in mowed areas. . To mitigate disturbance to ground nesting birds and other wildlife, mowing is delayed until August 1.

(e) Why is this use being proposed?

Winter wheat and rye provide a source of green browse during the fall and winter months for geese, cranes, deer, and other wildlife. Milo provides a high carbohydrate grain used by deer, turkey, pheasant, quail, dove, songbirds, and other wildlife during the colder months of winter. Forbs are also grown to create additional browse.

Availability of Resources:

Adequate funding and staff are available to manage the cooperative farming program. Cultivation and planting typically requires 60 staff hours, and equipment maintenance requires an additional 60 hours. Fuel, equipment repairs, seed, fertilizer, and herbicide application costs usually exceed \$1,000 per year. Administering Annual Cooperative Farming Agreements requires 24 staff hours each year.

Anticipated Impacts of the Use:

Short and Long Term Impacts:

Due to standard practices associated with farming, some degree of erosion may take place; however, erosion is minimized by planting cover crops and by crop residue management. Surrounding fields are well vegetated so no water bodies are expected to be impacted by runoff. Cooperative farmers are allowed to use only Refuge

approved chemicals. Refuge approved chemicals typically have low toxicity and fast biodegradable rates compared to other commonly used chemicals.

Cooperative farming will result in short-term disturbances and long-term benefits to both resident and migratory wildlife using the Refuge. Short-term impacts will include disturbance and displacement of wildlife that is typical of any heavy equipment operation. Any nesting disturbance should be minimal and mowing regimes will be authorized after nesting seasons to minimize nest loss of ground nesting birds. All haying and mowing operations are prohibited until August 1.

Positive long-term benefits result in providing food/habitat for migratory and resident wildlife and minimizing crop depredation on neighboring farms. This activity provides for the early detection and treatment of invasive species, thereby creating a healthier environment for native plant communities. This is especially important in areas targeted for native plant restoration projects.

Cumulative Impacts:

Farming only occurs on lands that have been previously farmed. The impacts described are minimal and short-term. The proposed action is not expected to incrementally add to any other state, private, or federal actions that are proposed or currently occurring in the area. The proposal benefits numerous wildlife species and supports hunting, wildlife observation, wildlife photography, environmental education, and interpretation. This activity does not significantly impact other Refuge activities or wildlife populations nationwide.

Public Review and Comment:

This compatibility determination is available for public review and comment. The Service will consider all substantive comments received. *[Final CD will describe public review opportunities and comments.]*

Determination (check one below):

- Use is Not Compatible
 Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The annual issuance of cooperative farming agreements and special use permits for haying that include special conditions for conducting the activity, along with routine inspections of the fields to insure compliance with the terms of the agreements, will ensure that compatibility is maintained. Service policy, directives and instructions in the Refuge Manual require reporting on farming, chemical weed management and haying activities.

Justification:

The agricultural program supports the Refuge purposes by providing grain and forage for wildlife and by contributing to a diversity of habitat types. The acreage farmed by Refuge staff and a cooperator greatly reduces the budgetary and manpower requirements that would be needed if the Refuge staff farmed all of the cropland. Haying benefits wildlife by providing and maintaining open areas for feeding and resting, retarding encroachment by woody species, and removing standing vegetation in areas targeted for native plant restoration.

Cooperative farming on the Refuge is consistent with local practices and is accomplished on land suitable for such management. Refuge croplands supplement natural food sources on the Refuge and provide undisturbed areas where wintering waterfowl can forage. The Refuge farming program minimizes crop depredation on area lands, thus preventing economic loss to private landowners. Mule deer, white-tailed deer, and other resident wildlife benefit from Refuge farming practices. Additionally, wildlife viewing opportunities are enhanced through concentrating birds.

Signature: Refuge Manager _____
(Signature and Date)

Concurrence: Regional Chief _____
(Signature and Date)

Mandatory 10-year Re-Evaluation Date (for uses other than the six-priority wildlife dependent public uses): 2020.