

**DRAFT
ENVIRONMENTAL ASSESSMENT**

**Transfer of Federal Aid Interest
in
Nebraska Game and Parks Commission
Almeria Meadows Wildlife Management Area
to the
Lackaff Tract Addition**

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**Prepared by
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and
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EXECUTIVE SUMMARY

This Draft Environmental Assessment (DEA) provides an analysis of alternatives for the resolution of a loss of management control by the Nebraska Game and Parks Commission (Commission) regarding a property acquired with Federal Aid in Sport Fish and Wildlife Act funds. The responsibility for resolution of this loss of management control issue is with the Commission and the U.S. Fish and Wildlife Service (Service); this document is the National Environmental Policy Act compliance component. Resolution of this loss of control will enable the Commission to remain eligible to participate in the Federal Aid in Sport Fish and Wildlife Grant programs. Failure to resolve the loss of control could result in significant loss of funding to the Commission.

This DEA describes the events leading up to the loss of control issue, describes the actions and alternative proposed to resolve the issue, and evaluates all environmental issues for selection of a preferred action. The Commission along with the Service delineated a set of criteria used in selection of a preferred action. The DEA is also necessary to determine if a Draft Environmental Impact Statement (DEIS) is necessary to analyze the issue of loss of control. After the EA is reviewed and completed, a determination will be made whether an Environmental Impact Statement (EIS) is required. If an EA is appropriate the Commission will be advised to proceed with the preferred action to resolve the issue. If an EIS is needed, the Service will initiate the EIS process.

There are two methods which the Commission can choose to resolve the issue of loss of management control: 1) regain control or 2) replace the current property with another of equal benefit and equal value. The Preferred Action for resolution of the issue of loss of management control is to replace the Almeria Meadows Wildlife Management Area (Almeria) with a comparable property, the Lackaff Tract (Lackaff). The Commission will deed the title of Almeria to a private individual for an appraised value of the land and use these funds to purchase the Lackaff Tract as a replacement. Upon completion of the purchase, the Lackaff Tract will become a part of the Twin Lake Wildlife Management Area (Twin Lakes) and become a federally acquired property subject to regulations in 50 CFR Part 80.

PURPOSE AND NEED

The purpose of this Draft Environmental Assessment (DEA) by the U.S. Fish and Wildlife Service (Service) and the Nebraska Game and Parks Commission (Commission) is to assess the potential environmental effects of actions proposed to resolve the loss of management control by the Commission. This DEA is necessary to identify and assess the reasonable alternatives to proposed actions (40 CFR 1500.2 (e)), to provide a basis to determine if an Environmental Impact Statement (EIS) is appropriate and to assist in agency decision-making (40 CFR 1501.3 (b)).

In May 1994, the Commission was approved by the Service under Grant FW-15-L, Segment 44, titled Acquisition of Riparian Lands (Worth) for the acquisition of 272.2 acres of land, in Loup, County, Nebraska. Grant approval was based on the following:

“The purpose of the grant is to acquire for wildlife and fisheries production and public hunting and fishing a tract of land of approximately 272 acres located in Loup County. This parcel will provide excellent access and opportunity for the hunting and fishing public. Once acquired, wildlife management practices such as prescribed burning, timber stand improvement, vegetation control, food plots and tree and shrub plantings will enhance the tract’s value for hunting and fishing. Species which hunters will be able to pursue include white-tail and mule deer, turkey, pheasants, fox squirrel, cottontail rabbit, mourning doves, furbearers and waterfowl. Game fish species which the angler can pursue include catfish and carp.”

The land was acquired in part with Federal Aid in Sport Fish Restoration (64 Stat. 430; 16 U.S.C.777k) and Federal Aid in Wildlife Restoration (50 Stat. 917; 16 U.S.C. 669-669i) funds and was designated as the Almeria Meadows Wildlife Management Area (Almeria).

During the same time period the Commission acquired Almeria, adjoining land was purchased by private individuals John R. Taylor and Laura K. Taylor (Taylors). The Taylors apparently were unaware of the Commission’s proposed acquisition of Almeria and not sufficiently informed to attend the public hearing and provide input on the proposed acquisition. Unrestricted public activity on Almeria was perceived to have the potential to impact the rights of the adjacent property owners, such as the rights of control, possession, enjoyment, exclusion, and disposition. Due to these concerns, the Commission entered into a Cooperative Management Agreement on March 1, 1996 (Appendix A) with the Taylors. The agreement restricts public access to Almeria, grants the Taylors a lease to use Almeria for agricultural purposes, and outlines subsequent conditions to ultimately trade Almeria to the Taylors. The Agreement was written to continue the lease with five year extension periods until a transfer of the property could be completed.

In a letter dated December 23, 1999, the Commission requested guidance from the Service to proceed with disposal of Almeria. The Service responded on January 6, 2000, and stated that the 1996 Cooperative Agreement with the Taylors resulted in the loss of management control of Federal Aid-acquired property which is a violation of the Administrative Requirements of the Federal Aid Program (50 CFR 80.14). Resolving this violation is necessary for the Commission to remain eligible to participate in the Federal Aid program.

The Administrative Requirements of the Federal Aid Program (50 CFR 80.14 (b) (1)), describe two

methods available to the State fish and wildlife agency to resolve a loss of management control of real property acquired with Federal Aid funds. The State fish and wildlife agency has the prerogative to choose between these methods, specifically:

“When such property passes from management control of the fish and wildlife agency, the control must be fully restored to the State fish and wildlife agency or the real property must be replaced using non-Federal Aid funds. Replacement property must be of equal value at current market prices and with equal benefits as the original property.”

Equal value is established by preparation of a certified appraisal for both the original property and the proposed exchange parcel. The appraised value of a proposed exchange property must be equal to or greater than that of the original property.

Equal benefit is established by assessing those factors of ownership of the original property to the presence or absence of these same factors on proposed replacement properties. While there is no expectation that a replacement property will have identical factors of benefit as the original, the use of these factors allows justification of selection of a primary replacement property. This selection process is a way of accounting for the benefits a replacement property should provide to the fish, plant and wildlife resources, their habitats, and the intended use of the property by the public. To ensure that a proposed property provides equal benefits as the original, a number of factors were considered including:

The availability of exchange properties that correlate with the purpose of the original;

The primary purpose, habitat type, floral and faunal species, recreational and public use, size, and associated property rights (e.g., water rights) of a proposed exchange property;

Resource features of a proposed exchange property that may be different but of greater value than the original; and,

The ultimate ownership, management, and use of the original property.

The Service, in a letter to the Commission, dated January 9, 2001, provided the following recommendations and criteria to be used in judging replacement properties: 1) a native grassland prairie, with wet meadows, for grassland bird species; 2) good fishing access to a riverine environment; 3) emergent wetlands in an established riparian zone; 4) larger, established woodlands for two deer species and turkey to benefit hunters, and 5) habitat types to support furbearers.

The Service has the discretion and authority, pursuant to 50 CFR Part 80, to require that the Commission resolve the loss of management control to remain eligible to participate in the benefits of the Federal Aid in Wildlife Restoration Program. The Commission has the prerogative to choose which of the methods (restoring control or replacement) described above will be used. Consequently, correcting the loss of management control of Almeria constitutes a "Federal action," which must comply with various laws.

LAWS AND DIRECTIVES

The proposed action is subject to Federal statutes including:

- Federal Aid in Wildlife Restoration Act;
- Federal Aid in Sport Fish Restoration Act;
- National Environmental Policy Act;
- Endangered Species Act of 1973, as amended;
- Executive Order 11988 - Floodplain Management;
- Executive Order 11990 - Protection of Wetlands;
- National Historic Sites Preservation Act and Archeological Resources Protection Act.

The proposed action is subject to the Revised Statutes of Nebraska including:

Section 37-426 that requires all persons 16 years of age or older that hunts or traps to purchase and carry on his or her person a habitat stamp. Since its inception in 1977, this source of revenue has annually generated more than one million dollars. State funds programmed for the acquisition and subsequent development of the Lackaff tract will come from this source.

Section 37-432 authorized the acquisition on a willing-seller/willing-buyer basis only; leasing, taking of easements, development, management, and enhancement of wildlife lands and habitat areas with habitat stamp funds.

Section 37-331 authorized and empowered the Commission to exchange lands owned by the Commission for other lands when the acquisition of the other lands involved in the exchange would provide greater utility or value to the Commission and materially aid in the promulgation for the basic duties and purposes of the Commission. Any such exchange shall be made on the dollar-for-dollar appraised valuation.

Section 37-329 provides the authority to the commission to acquire lands for wildlife management purposes, either by purchase, lease, gift, or other devise.

Section 37-420 covers the State's participation in the Federal Aid in Wildlife Restoration Act of 1937 (Public Law No. 415, 75th Congress).

Nebraska State Statutes can be found at: <http://statutes.unicam.state.ne.us...atutes/chap37.html>

ALTERNATIVES

ALTERNATIVE 1 - Preferred Action

The preferred action is the transfer of title of the 272.2 acres at Almeria (Figure 1) by the Commission to the Taylors for the full appraised market value. The money from the sale of Almeria would then be used to acquire a comparable tract called the Lackaff. The Quit Claim deed (“Draft” Appendix A) for the Almeria property contains restrictions on development of the existing floodplain and wetlands and provisions to protect a small population of the threatened Western Prairie Fringed Orchid (50 CFR 17.12: Endangered and threatened plants) which occurs in the northern mid-section of the 140-acre wet meadow. The Taylors will manage the property in the manner outlined in the restrictions to the Quit Claim (Appendix B). They will utilize current Farm Service Administration (FSA) cropland as in the past for row crops and harvest the meadow one time per growing season. In addition, they will graze those portions of the property as assigned by the Commission. The restrictions allow for no winter livestock feeding in the meadow. The following activities may not occur on the property:

- a) Any construction or development;
- b) Wetland drainage, pumping, excavation, filling or leveling of wetland areas;
- c) Planting of exotic species of trees, exotic grasses or exotic shrubs;
- d) Artificial impoundment of water;
- e) Well drilling or well installation;
- f) Development of livestock feedlots; and
- g) Aerial or ground spraying of insecticides and/or herbicides and/or chemical fertilizer without the prior written approval from the Nebraska Game and Parks Commission, or their heirs or assigns.

The Taylors will deposit a sum equal to the appraised market value of Almeria into an escrow account for use toward the purchase of a replacement property. The replacement property proposed for selection by the Commission is the Lackaff Tract (Lackaff), which consists of 560 acres in Rock County, Nebraska (Figure 2). State license revenues will be used to make up any difference between the market value received for Almeria and the market price of Lackaff. A certified appraisal has been completed for Lackaff. The area has also been evaluated by Commission and Service biologists to ensure that the property provides equal wildlife benefits and habitat similar to Almeria. The 560 acres of Lackaff would be subject to all applicable Federal Aid rules and regulations.

An appraisal of Almeria determined the value of the land to be \$87,100.00 (\$272.20 per acre) with current described deed restrictions (Appraisal Almeria Meadows Wildlife Management Area). The Lackaff, intended as a replacement for Almeria was valued at \$179,200.00 (\$315.00 per acre) under the “Offer to Sell Real Estate and Contract of Sale”(Appraisal Report and Appraisal Review of the Richard Lackaff Tract). The Lackaff would be incorporated into the existing Twin Lake Wildlife Management Area (Twin Lakes) and managed by the Commission as described in the management plan for the WMA.

Figure 1. GiS map of Almeria Meadows WMA, Loup County, Nebraska.

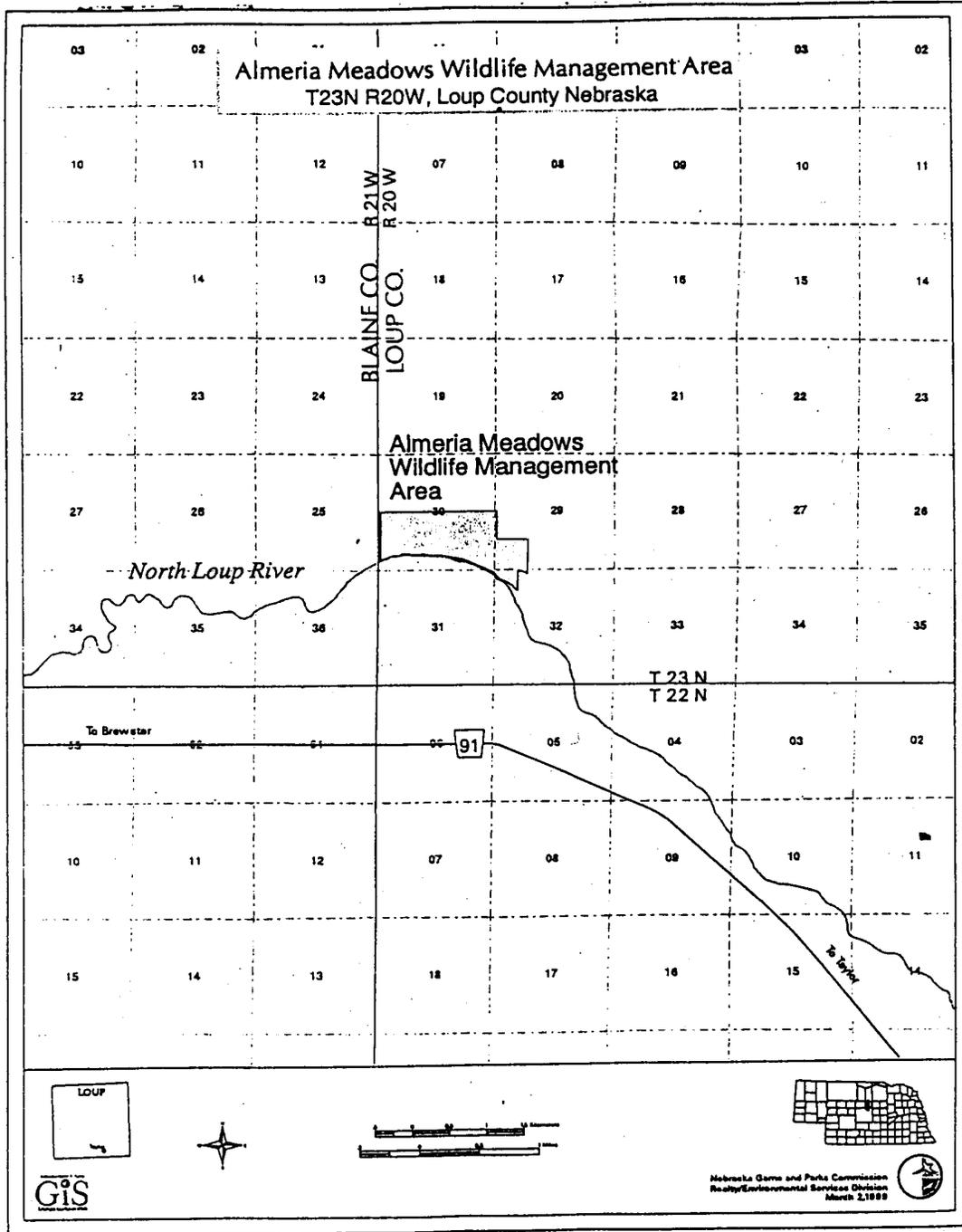


Figure 2: GIS map of the aerial view and location of the Lackaff tract addition to Twin Lakes WMA, Rock County, Nebraska

Map can be accessed on web at www.r6.fws.gov/ne2/figure2_almeria_medows_ea.pdf. The file is 1,125 KB in size.

ALTERNATIVE 2

Alternative 2 would revert management control of Almeria to the Commission by canceling the Cooperative Agreement with the Taylors. All existing grazing and farming on the land and other restrictions incorporated into the Cooperative Agreement would be terminated. Almeria would be opened to public access for hunting, trapping, and fishing.

The Commission would undertake a variety of activities to improve the habitat conditions of Almeria such as prescribed burning, tree clearing, haying, and grazing. The reestablishment of native sand hills prairie grasses on the areas currently under FSA cultivation would be undertaken. The haying of the meadow would occur once every three or four years rather than once per growing season as occurs now to increase species diversity and improve forage for wildlife. The Commission would hay the meadow to reduce or inhibit the growth of woody vegetation, especially buckbrush (*Symphoricarpos occidentalis*) (Rydberg, 1965). Grazing by cattle in the meadow would be considered in the management strategy and would be allowed for a week at a time, dependent on the necessity of ground disturbance for regeneration of the orchid and other vegetative plants. The Commission would not develop or install any water control structures nor undertake any wetland development, since these are seen as unnecessary on Almeria at this time. The Commission would use its discretion in regulating use of the area, especially hunting within close proximity of private property.

ALTERNATIVE 3 - No Action

The No Action Alternative would fail to solve or rectify the loss of management control at Almeria. The Almeria property acquired with Federal Aid funds by the Commission would continue to be managed by the Taylors via the existing Cooperative Agreement. Current agricultural uses would continue to include tilling and planting of corn, rye, wheat, and oats in FSA cropland. The wet meadow would continue to be hayed and be grazed by livestock during the fall. The existing Cooperative Agreement contains no language restricting agricultural use by the Taylors on Almeria. Public use of the area would continue to be limited to access on the North Loup River for fishing.

The Commission would still be required under the existing Cooperative Agreement to find a suitable site for transfer of the Federal Aid acquired property and if necessary the Cooperative Agreement would be extended for additional five year periods to the Taylors (see Appendix A for details of the Cooperative Agreement). The State of Nebraska would continue to be in violation of 50 CFR 80.14 and would lose their Sport Fish and Wildlife Restoration Act funds which amount to approximately \$6.7M annually.

DISCUSSION AND SELECTION OF PREFERRED ALTERNATIVE

The justification for selection of the preferred alternative is based on several factors including: 1) the need to reconcile the Cooperative Agreement between the Commission and the Taylors; 2) the need to resolve the Federal Aid loss of management control; 3) allow the Commission to retain the use of Wildlife Restoration funds; and 4) the prerogative of the Commission to obtain the Lackaff as a replacement property for Almeria, based upon justified and delineated needs and habitat factors that relate to equal benefits and equal value. Additional measurement standards were delineated by the Commission and the Service for selecting any potential property as a replacement to Almeria. These measurement standards or criteria for selection were as follows:

- 1) a native grassland prairie, with wet meadows, for grassland bird species;
- 2) good fishing access to a riverine environment;
- 3) emergent wetlands in an established riparian zone;
- 4) larger, established woodlands for two deer species and turkey to benefit hunters, and
- 5) habitat types to support furbearers.

In addition, the Commission has specific needs for properties which benefit anglers and hunters. A sixth (6) criteria based upon the likely benefit of the property for anglers and hunters was used in selecting and justifying a property as a replacement for Almeria. Table 1 shows each measurement standard or criteria listed above with properties considered as possible replacements for the loss of management control at Almeria.

Table 1. Analysis of properties proposed for replacement of loss of management control on Almeria.

Property	Criteria #1*	Criteria #2	Criteria #3	Criteria #4	Criteria #5	Criteria #6	Selection**
Almeria	X	X	X	X	X	N	S
Gaston	N	Y	Y	N	Y	N	B
Dyer	Y	Y	Y	Y	N	N	B
Timperly	N	N	Y	Y	U	N	B
School Trust	N	Y	Y	N	N	N	B
Boyd	N	X	N	Y	U	X	B
Lackaff	X	X	X	X	X	X	A

*Criteria are described in paragraph above: X = meets criteria; N = does not meet criteria; U = unknown

**S = Standard; A = Acceptable; B = Not Acceptable

The Commission's Habitat Committee uses a rating protocol for evaluating possible property acquisitions for use as wildlife management areas. The ratings are expressed as numbers between 1 and 4. A rating of 1, for a given property is justification that the property meets the goals of the Commission's acquisition plan. A rating of 4, for a given property means the property does not meet the goals of the Commissions acquisition plan. The Habitat Committee also has a list of priorities

which it uses to evaluate properties for potential acquisition. The priorities used are: #1 rainwater basin wetlands; #2 all other wetlands; and #3 important riparian areas. The Habitat Committee uses these ratings and priorities for all properties in a given area the Commission is interested in obtaining for use as wildlife management areas. Those properties reviewed, surveyed, and discussed internally by the Commission and the Service, as possible replacements for Almeria but not selected were:

1. Gaston Tract in Thomas County, consists of 542 acres along the Middle Loup River. The Gaston tract is located 3 miles east of Thedford on Highway 21. This property was not considered suitable to the needs of the Commission due wet meadows which contains little vegetation available to wildlife, a less than fair fishery, and the perceived reduction in the quality of the outdoor experience by the public because of the close proximity to the railroad track and to Highway 21. The Commission's habitat committee rated the area as 2.5 as a Wildlife Management Area.

2. Dyer Tract in Valley and Greeley County, consists of 406 acres along the North Loup River. The tract is located 2 miles north and 1 mile east of North Loup, NE. This property was not considered suitable to the needs of the Commission due to past extensive cropland and disturbed wet meadows that are heavily infested with reed canary grass. The Commission's habitat committee rated the area as 2.0 as a Wildlife Management Area.

3. Timperly property in Stanton County, NE consists of 1,040 acres. The property is located 1 mile south and 3 miles west of Stanton, NE, on the backwaters near the Elkhorn River. The tract is adjacent to Wood Duck WMA (purchased with federal aid funds in the 1980's, W-53-L segments 7 & 11). This property was considered suitable to the needs of the Commission as delineated in a letter dated January 8, 2001 to the Service. The Service determined that this tract was not acceptable due to its failure to meet the measurement standards and criteria for equal benefits (Table 1) in a letter to Kirk Nelson, Assistant Director of the Commission, dated January 9, 2001. The area does not have a fisheries and fragmentation of wet meadow habitat consisting of only 50 acres in contrast to the 140+ acres at Almeria. The lack of benefits to anglers and hunters would not justify obtaining this parcel.

4. School Trust Property in Blaine County, Nebraska consists of 328 acres. The property is located 3 miles SE of Brewster, Nebraska. The Service determined that this tract was not acceptable due to its failure to meet the criteria for equal benefits (Table 1) in its January 9, 2001 letter to Kirk Nelson, Assistant Director of the Commission. This property was deemed unacceptable due to the difference in habitats of higher and drier terraces versus a wet-mesic prairie found on Almeria. The acquisition of the property would not likely benefit hunters nor anglers due to its close proximity to a populated area. The Commission Habitat Committee further eliminated this property due to impacts with other residences, no wet meadows and poor habitat for deer and turkey. The Committee gave the property a rating of low priority of 4.

5. Boyd property in Brown County, Nebraska consists of 1,006 areas. The property is located 6 miles North of Johnstown. The Service determined that this tract was not acceptable due to its failure to meet the criteria for equal benefits (Table 1) in its January 9, 2001, letter to Kirk Nelson, Assistant Director of the Commission. This property was not considered suitable based upon the very different

habitat types and lack of wet-mesic prairie and emergent wetlands.

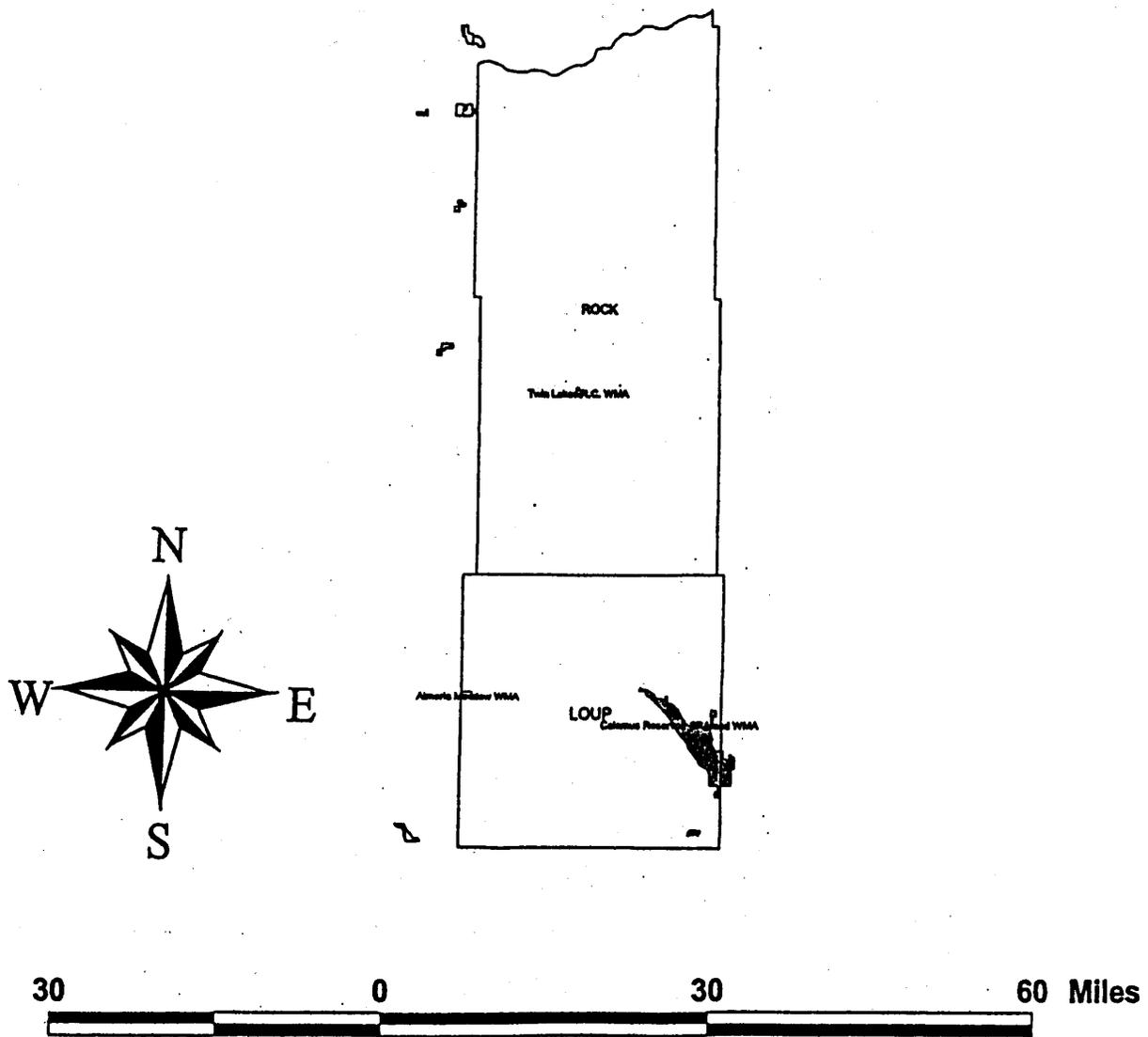
6. The Lackaff property provides the best example of a diversity of habitats needed by the Commission in fulfilling its goals in terms of fish and wildlife habitat. The similarity in vegetation, topography, and water availability for fishing and emergent vegetation for waterfowl to Almeria make Lackaff the best choice for replacement. The similarity in habitat and water is somewhat due to the proximity of each property (Figure 3). The evidence of grassland prairie along with wetlands, woodlands and wet meadows provide the habitat factors and desirable land values for wildlife wanted by the Commission. The habitat committee rated the Lackaff as 1, the highest rating for both wildlife habitats and public benefits of angling and fishing. The availability of the tract, its ability to meet measurement standards and criteria for a replacement property, along with the need to resolve the loss of control issue associated with Almeria, led to the selection of Lackaff as a good replacement property.

Alternative 2 is unacceptable because canceling the Cooperative Agreement with the Taylors while permitting the Commission to regain management control of Almeria, would most likely result in litigation by the Taylors against the Commission. The probable litigation could result in a number of outcomes including a ruling against the Commission. Considering a negative outcome ruling, should litigation be pursued, the Commission would have to resolve issues regarding disposition of Almeria instead of working on more positive needs of the State. The Attorney General of the State of Nebraska, in a letter to Rex Amack, Director of the Commission, dated December 1, 1999, stated, "It is our position that, under the circumstances, the best legal option for the Commission at this time is to prepare to trade the entire parcel currently owned by the Commission."

The No Action alternative (Alternative 3) would fail to resolve the violation of 50 CFR 80.14, "loss of control", of the Federal Aid in Wildlife Restoration Program resulting in the Commission's inability to continue to participate in the Federal Aid in Wildlife Restoration program. This outcome is considered unacceptable to both the Commission and the Service.

The relationship of properties in the preferred alternative for transfer of the Federal Aid interest in Almeria, Loup County, to Lackaff in Rock County is shown in Figure 3. The Lackaff will become a part of the Twin Lakes Wildlife Management Area.

Figure 3. Map showing the proximity and relationship of Almeria Meadows WMA to the Twin Lakes WMA in Loup and Rock Counties, Nebraska.



AFFECTED ENVIRONMENT

ALMERIA MEADOWS STATE WILDLIFE MANAGEMENT AREA

The Almeria Meadows State Wildlife Management Area (Almeria) is located approximately 18 miles northwest of the Village of Taylor, Nebraska, in Loup County. Almeria is located at the west central boundary of Loup County. The western edge of the property is adjacent to the Loup/Blaine County line. The southern edge of the property is adjacent to the North Loup River. Access to the property is from Nebraska Highway #91 using Loup or Blaine County Road 1-23 (Figure 1). The property consists of Lot 1 in Section 29, and Lots 3, 4, 5, and 6 and the N1/2 S1/4 of Section 30, Township 23 North, Range 20 West of the 6th P.M.(Appraisal, 2001). Almeria property rights also include seventy percent (70%) of all gas, oil, and mineral rights, reserving unto Rosa E. Worth, exclusively, thirty percent (30%) of the gas, oil, and mineral rights, for her lifetime only, and at the end of her life all reserved mineral rights will pass to the Commission.

Almeria is an unimproved parcel of land located adjacent to the north bank of the North Loup River. The property stretches for more than a mile from east to west and approximately one-half (½) mile from north to south. The terrain of the property is nearly level to very gently rolling. The property terrain drops in elevation from north to south as it approaches the North Loup River. A graveled Loup County road divides the property near the east end of the property and forms the northern boundary of the property along the west end of the property (Appraisal, 2001).

The property contains 272.2 acres and can be divided as follows:

<u>Type</u>	<u>Acres</u>
Dry cropland	75.20
Meadow Land	143.30
Building site	2.50
Shelter belts	25.00
Roads, Waste, Etc.	26.20
Total Acres	272.20

As described in the Appraisal Report (2001), there are two (2) best uses for the property. One use is for agricultural crop and livestock production and the other is for recreational purposes which the appraiser believes is the Highest and Best Use for the property. The known conditions at Almeria which were used as criteria for possible replacement properties are discussed and visually described in Table 1.

Fish

The proximity of the North Loup River allows a variety of aquatic wildlife. Channel catfish (*Ictalurus punctatus*) are the primary sport fish species found in the North Loup River. Sampling of the North Loup River (Bliss and Schainost, 1973) found an additional 40 species of fish including carp (*Cyprinus carpio*)(Appendix C).

The Commission does not stock sport fish into the North Loup River adjacent to Almeria. The property also contains a one-surface acre dugout pond which historically supported fish. In 1992, a winter kill occurred and the current fishery value of the pond is low.

Fish surveys completed by the Commission in 1970 and 1973 identified species associated in all Nebraska rivers and streams. An additional fish survey in recent time noted the occurrence of populations of Topeka Shiner (*Notropis [Hybopsis] topeki*) upstream in the North Loup River and Brush Creek in Cherry County, near Brownlee, NE. There is no evidence of the Topeka Shiner in the North Loup River adjacent to Almeria or within the boundaries of Loup County (pers. comm. Wally Jobman, USFWS, 2001). There appear to be no changes in the channel or habitats found in the North Loup River due to existing farming activities on Almeria which would negatively affect fish species or aquatic organisms.

Wildlife

There are numerous mammal, bird, reptile, and amphibian species associated with the wet meadows, marshlands and woodlands of Almeria. The most prevalent terrestrial wildlife includes white-tailed deer (*Odocoileus virginianus*), pheasant (*Phasianus colchicus*), turkey (*Meleagris gallopavo*), squirrel (*Spermophilus* spp), cottontail rabbit (*Sylvilagus floridanus*), racoon (*Procyon lotor*), beaver (*Castor canadensis*), northern bobwhite (*Colinus virginianus*), and various waterfowl and passerine birds. Nebraska has some 400 bird species which regularly occur in the State (Sharpe et al., 2001) due to the Nebraska’s strategic geographic location and its diversity of habitats. Management potential for most of these species occurs on Almeria. The shelterbelts on Almeria provide good cover and habitat for the existing wildlife populations.

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Table 2. The current list of the federally-listed endangered, threatened, proposed, and candidate species that may inhabit the area in and around Almeria.

Common Name	Scientific Name
Western Prairie Fringed Orchid (T)	<i>Platanthera praeclara</i>
Bald eagle (T)	<i>Haliaeetus leucocephalus</i>
Whooping crane (E)	<i>Grus americanus</i>
Black-footed Ferret (E)	<i>Mustela nigripes</i>
Black-tailed Prairie Dog (C)	<i>Cynomys ludovicianus</i>

E = Endangered; T = Threatened; C = Candidate

The descriptions of these species to include their critical habitat requirements and occurrence on Almeria are as follows:

Western Prairie Fringed Orchid

The western prairie fringed orchid (*Platanthera praeclara*) is found in the Sandhills sedge wet meadow community. A single population of the orchid has been found in the 140 acre wet meadow (NGPC, 1999). The wet meadow is currently being cut for hay on a three-year cycle and is grazed annually by livestock. The Draft Deed restrictions contain language to delay haying until September 7 of every year and allow the Commission the right to monitor the orchid population and other land management activities. The specific location of the orchid population is shown on Figure 4. There is an existing recovery plan for the orchid (USFWS, 1993). The Commission has also published a brochure as part of the series of Nebraska's Threatened and Endangered Species on the orchid (NGPC, 1993).

Bald Eagle

Wintering bald eagles (*Haliaeetus leucocephalus*) are occasionally observed in the southern area of Almeria. A bald eagle nest exists approximately two miles down the river but the nest is currently inactive. Deed restrictions would prevent cutting of cottonwood stands that might be used as eagle roost or nesting sites. There are no current nests or roosting sites for bald eagles on Almeria.

Whooping Crane

In 1975, whooping cranes (*Grus americanus*) were observed one mile up river from Almeria. Since 1975, additional sightings have occurred within ten miles of the property. A deed restriction on the property to protect the roosting habitat of the crane is included as part of the land trade. There are no current roosts or utilization of the habitat by whooping cranes on Almeria.

Black-Footed Ferret

The black-footed ferret (*Mustela nigripes*) depends almost exclusively on prairie dogs for food, shelter, and denning (Henderson et al., 1969; Forrest et al., 1985 & 1988). The range of the ferret coincides with that of three prairie dog species (Anderson et al., 1986) and ferrets with young have been documented only in the vicinity of active prairie dog colonies. Historically, black-footed ferrets have been reported in association with black-tailed prairie dogs (*Cynomys ludovicianus*), white-tailed prairie dogs (*Cynomys leucurus*), and Gunnison's prairie dog (*Cynomys gunnisoni*) towns (Anderson et al., 1986). There are no existing black-footed ferrets located on or near Almeria.

Black-tailed Prairie Dog

The black-tailed prairie dog (*Cynomys ludovicianus*) is an integral part of the prairie grassland ecosystem and its presence increases both animal and plant diversity (USFWS, 1995). The black-tailed prairie dog provides an important habitat and prey for many species. The endangered black-footed ferret (*Mustela nigripes*), mountain plover (*Charadrius montanus*), Western burrowing owl (*Athene cunicularia*), swift fox (*Vulpes velox*), badger (*Taxidea taxus*), and Ferruginous hawk (*Buteo regalis*) are often found using black-tailed prairie dog habitats. Burrowing and grazing activities of black-tailed prairie dogs affect many ecosystem functions and processes including vegetation structure, plant composition, nutrients available in soil for plants, soil turnover, soil chemistry, energy flows, nutrient quality of plants, and plant succulence (Whicker and Detling, 1993). The State of Nebraska released a draft conservation plan for the black-tailed prairie dog in July 2001 (NGPC, 2001). There are no current black-tailed prairie dog populations found on

Almeria.

An “Intra-Service” Consultation was requested from the Grand Island Office of Ecological Services-FWS, Grand Island, Nebraska by the Division of Federal Aid-FWS on November 9, 2001 (Appendix D). The Intra-Service Consultation is required under Section 7 of the Endangered Species Act (1973, as amended). The results of the consultation state, “based on the draft deed restrictions which will be placed on the property, we concur the Federally listed threatened and endangered species, and candidate species are not likely to be adversely affected by the proposed land trade” (Appendix E).

Figure 4. Map of habitat types and location of FSA Cropland on Almeria Meadows WMA.

Map may be accessed at website www.r6.fws.gov/ne2/figure4_almeria_meadows_ea.pdf. File size is 320,000 bytes.

Habitat - Vegetational Types

The vegetational types located on Almeria are shown on Figure 4. Each plant community and vegetation type is described beginning at the western end of the area and proceeding to the eastern property boundary. It is important to note that all 272.2 acres of Almeria are located north of the North Loup River (Figure 4). The Nebraska Natural Heritage Program uses a community element ranking criteria quality ranking criteria for all plant communities in the State. The natural community element ranking criteria serves two basic functions 1) to set protection priorities for occurrences within each natural community type; and 2) to assist in setting stewardship objectives for natural community types. Ranking criteria have been developed for each major physiognomic group (e.g. grasslands or woodlands) within both the Terrestrial and Palustrine Systems. The ranking criteria consists of four Grades - A, B, C, and D; and are based on the “condition” (how much the site has been damaged or altered from its optimal character or condition) of a site. The grades are briefly summarized below:

Grade A - These occurrences are virtually undisturbed or have experienced light disturbance, but recovered to the extent where community structure and composition reflects or nearly reflects natural conditions.

Grade B - These occurrences have experienced light to moderate disturbance from natural or man-induced forces. They represent “seral” or “disclimax” communities. These have a general increase in the number and density of non-conservative species (species that increase under disturbance) relative to Grade A occurrences. They have usually retained the majority of their natural components and functions and can be restored to Grade A levels with proper management and time.

Grade C - These occurrences have experienced moderate to heavy disturbance. They represent “early seral” or “disclimax” communities. These are usually dominated by non-conservative plant species and the level of disturbance is often of such severity that components or functions of the community may have been permanently lost. In general, they can be restored to Grade B levels, but not Grade A levels without an extensive period of time.

Grade D - These occurrences have experienced severe disturbance and represent “disclimax” communities. These are dominated by very hardy non-conservative species or exotics and have little recovery potential without major restoration work.

The floodplain located adjacent to the North Loup River is a sandhills freshwater marsh plant community. This plant community runs along the entire south boundary of the property and generally extends from 10 to 50 meters from the river bank to the lower swales of the wet meadows (see Northern sedge wet meadow plant community). The size of the sandhills freshwater marsh varies between 4.9 to an average of 14.6 acres on Almeria. This community is given a quality ranking of “B” by the criteria of the Nebraska Natural Heritage Program. This area is dominated by broad-leaved cattail (*Typha latifolia*), sensitive fern (*Onoclea sensibilis*), bulrushes (*Scirpus* spp.), and sedges (*Carex* spp.). The marsh has scattered trees and shrubs including peach-leaf willow (*Salix amygdaloides*), wild indigo (*Amorpha fruticosa*), and red osier (*Cornus stolonifera*). Reed canary grass (*Phalaris arundinaceae*), an aggressive exotic, has invaded a portion of this marsh near the east end of the property.

The Sandhills wet-mesic tallgrass prairie is the predominant plant community beginning on the west end of the property boundary of Almeria. This plant community completely makes up the 140 acre wet meadow (marked A in Figure 4). The community was given a quality ranking of B according to Nebraska Natural Heritage Program criteria. This community occupies the flat terrace on the north side of the North Loup River. These sites are rarely flooded, but are subirrigated by high groundwater levels (about one meter below the surface). Big bluestem (*Andropogon gerardii*), switchgrass (*Panicum virgatum*), prairie cordgrass (*Spartina pectinata*), and Canada wildrye (*Elymus canadensis*) dominate the wet-mesic prairie on Almeria. Slightly higher portions of these terraces also have prairie sandreed (*Calamovilfa longifolia*). Forbs commonly found in this community include yarrow (*Achillea millefolium*), western ragweed (*Ambrosia psilostachya*), pussytoes (*Antennaria neglecta*), ground plum (*Astragalus crassicarpus*), purple poppy mallow (*Callirhoe involucrata*), Flodman thistle (*Cirsium flodmanii*), stiff sunflower (*Helianthus pauciflorus*), yellow stargrass (*Hypoxis hirsuta*), clammy groundcherry (*Physalis heterophylla*), black-eyed Susan (*Rudbeckia hirta*), and rosinweed (*Silphium integrifolium*). The western prairie fringed orchid is found in this plant community.

These wet-mesic tallgrass prairie meadows are cut for hay one time per growing season under the current Cooperative Agreement. There are several reasons for haying the meadow. The first is to restrict or inhibit woody vegetation from encroaching on the grassland through succession. The second is to reduce the thatch cover of the meadow and reduce the fuel loading for potential wild fires. The third, in current use, is to provide winter forage for the Taylors cow/calf operation.

In the absence of fire on these grasslands, the timing of haying of the meadow results in natural vegetative regeneration of grasses. In a natural state, recycling of nutrients would occur from decomposition of grass thatch and reduction of the thatch by fire. Without fire as a mechanism of nutrient recycling and grass maintenance however, this meadow would quickly be overrun with weedy vegetation (most notably noxious and exotic species) and woody vegetation (Wright and Bailey, 1982; Pyne, 1982). Mixing management protocols and regimes permits diversity of species and helps maintain vegetative quality.

Lower swales in the wet meadow comprise the Northern Sedge Wet Meadow plant community and are given a quality ranking of "BC." The water table is usually within one meter of the surface throughout the growing season; portions of these sites may be temporarily flooded in late winter and early spring. The dominant grasses in this community at Almeria are redtop (*Agrostis gigantea*) [exotic], spikesedge (*Eleocharis elliptica*), timothy (*Phleum pratense*) [exotic], and broom sedge (*Carex brevior*). Forb species commonly found in this community include swamp milkweed (*Asclepias incarnata*), water hemlock (*Cicuta maculata*), yellow star-grass (*Hypoxis hirsuta*), field mint (*Mentha arvensis*), bugleweed (*Lycopus uniflorus*), loosestrife (*Lythrum alatum*), heal-all (*Prunella vulgaris*), and marsh skullcap (*Scutellaria galericulata*).

Row crops cover approximately 75 acres of the property. Crops planted and harvested by the Taylors include corn, rye, wheat and oats. FSA cropland on Almeria is the only location allowed under the cooperative agreement and the deed restrictions where the Taylors may plant and till the ground for agricultural use. The locations of the cropland are shown on Figure 4.

A small stand of cottonwood with some boxelder and eastern red cedar are adjacent to the river near the east of the pond. There are also wood shelter belts at the western edge of the FSA cropland labeled "B" which continue alongside the road to the property boundary. The old homestead is also surrounded by trees. The total amount of acreage contained in trees as shelter belts on Almeria is approximately 25 acres (Appraisal, 2001).

There are presently no impacts on the present vegetation due to current farming activities. Management by the Commission, separate of the Cooperative Agreement, would change the current farming of FSA crop lands and replace these with native sand hills prairie grasses.

Habitat - Topography and Soils

The topography of Almeria is a flat river terrace that gently slopes toward the North Loup River. No prime or unique farmland as defined by the Natural Resources Conservation Service, occurs on the property.

The predominant plant community of Sandhills Wet-Mesic Tallgrass Prairie occupies the flat terrace on the north side of the North Loup River. Soils of this community are sandy loam or sand with considerable organic matter and are formed in eolian sand or alluvium. These sites rarely flood, but are subirrigated by high groundwater levels (about one meter below the surface). These soils are capable of providing for the existing meadows on the property and are cut for hay.

Lower swales (old channels) in the hay meadow contain Northern Sedge Wet Meadow plant communities. Soils of this community type are poorly drained sandy loam and sand with high organic content and are formed in eolian sand and alluvium. The water table is usually within one meter of the surface throughout the growing season; portions of these sites may be temporarily flooded in late winter and early spring.

The floodplain located next to the North Loup River is occupied by Sandhills Freshwater Marsh plant community. There is a band of marsh which generally extends 10 to 50 meters from the river bank. Soils of this community type are deep, very poorly drained, formed in eolian or alluvial sand, and often contain much organic matter (peat or muck). Soils are flooded or waterlogged through most of the year; surface water levels fluctuate seasonally with river levels.

Occasional tilling associated with the Taylors' farming activities, results in soil disturbances and small amounts of erosion from runoff and wind.

Habitat - Floodplains and Wetlands

According to the Nebraska Natural Resources Commission, Floodplain Management Section, Loup County does not participate in the National Flood Insurance Program. The county does not regulate floodplain development. No floodplain restrictions are in place along the North Loup River on this property. Nevertheless, the North Loup River does have a defined floodplain as illustrated in the terrace effect seen across the landscape. A floodplain is defined as "a flat expanse of land bordering

an old river...”(Reid and Wood, 1976:72,84, in Cowardin, et al., 1979). The floodplain of the North Loup extends from the river bank 10 to 50 meters into the sandhills freshwater marsh plant community. The terrace, which is now the wet meadow at Almeria, is part of the historic floodplain and elevations throughout the property range from 2,390 ft to 2,414 ft. Thus the overall change in elevation of the property is 24 ft. The North Loup is not known for extensive flooding, even in extremely wet years, due to its stabilized banks and the width to depth ratio of the river to move water and sediments.

Wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface (Cowardin, et al., 1979). The wetlands associated with the North Loup River at Almeria occur on the 140 acres delineated as the wet meadow (Figure 4 - “A”) and along the bank of the river. The riparian area along the North Loup River is rich in biodiversity and therefore highly valuable as habitat. Wetlands along the North Loup River at Almeria are shown on the Wetland Inventory map for Loup County (Appendix F). The wetland inventory maps visually describe six (6) types of wetland conditions occurring on the south border of the property. The river bed is described as riverine, lower perennial, unconsolidated shore, and seasonally flooded (R2USC). The remainder of the five types of wetlands found on Almeria are all palustrine in origin. Palustrine is defined as “marshy”. The five types are: PEM/SSC - palustrine emergent/scrub-shrub, seasonally flooded; PEMC - palustrine emergent, seasonally flooded; PSSC - palustrine scrub-shrub, seasonally flooded; PSS/EMC - palustrine scrub-shrub/emergent, seasonally flooded; and, PABFX - palustrine aquatic bed, semi-permanently flooded. The wetlands on the south property line of Almeria contain marshy soils, emergent and scrub-shrub vegetation, and are flooded during seasonal events of rainfall. The description of vegetational types is found in the section on Habitat- vegetational types.

Cultural, Historical, and Archaeological Resources

A cultural, historical, and archaeological resources review of Almeria was conducted August 16, 1994. The review was conducted using the implementing regulations for the National Historic Preservation Act (36 CFR 800) using the National Register Criterion C. The review was conducted by Greg Miller of the Nebraska State Historical Society and documented in a letter to the Commission by L. Robert Puschendorf, Deputy State Historic Preservation Officer (Appendix G). The review determined that the area does not contain archaeological resources and the property does not meet the minimum standards of historic integrity and is not eligible for inclusion in the National Register of Historic Places.

Socioeconomic Resources

Almeria provides access for fishing on the North Loup River. Populations of deer, pheasant, quail, dove, turkey, waterfowl, and cottontail rabbits could provide hunting and trapping opportunities. Since its acquisition by the Commission however, Almeria has never been open for hunting due to the terms of the Cooperative Agreement with the Taylors.

Water Resources and Water Quality

Water resources associated with Almeria include the North Loup River (for which approximately one mile of riparian access is provided through Almeria), a one-acre pond, ten acres of marsh, and about 140 acres of wet meadow. The centerline of the North Loup River marks the southern boundary of Almeria. The fishery's value of the river is high. The one-acre dugout pond is estimated at ten feet in depth and is located adjacent to the river. The pond historically held fish. The current fishery value of the pond is low due to a winter kill in 1992.

The North Loup River is largely protected from sediment runoff by the road and shelterbelts that dissect the west and south side of Almeria. Therefore, water quality is minimally affected by farming activities.

Air quality

The air quality of the Almeria is good and is currently not affected by any activities occurring on the land.

LACKAFF

The 560-acre Lackaff is located 18 miles south and 2 miles east of Bassett, in south central Rock County, Nebraska (Figure 2), adjacent to the Twin Lakes Wildlife Management Area (Twin Lakes). Vehicular access to the area is provided by US Highway 183 east on the Nebraska County Road #137. The Lackaff is about 66 miles northeast of Almeria. The property consists of two tracts of gently rolling grassland. The 80 acre tract is on the north side of Twin Lakes and the 480 acre tract lies south and east of Twin Lakes. The property contains 443 acres of grassland, 80 acres of marsh, 32 acres of ponds and 5 acres of timber.

The property consists of the N1/2, SW1/4 of Section 12 and S1/2, NE1/4, SE1/4 of Section 13, Township 27 North, Range 19 West of the 6th P.M. and S1/2, NW1/4, SW1/4 of Section 18, Township 27 North, Range 18 West of the 6th P.M.

The Lackaff property is in a wetland valley within the sandhills region of the county and is primarily used for agriculture. The 80 acre tract is part of a very large sandhill pasture extending several miles to the north and east. The 480 acre tract is surrounded by sandhill grassland and in wet years is inundated by water from Twin Lakes.

The Lackaff contains 560.0 acres and can be divided as follows:

Type	Acres
Level to rolling grassland - pasture & meadow	527.0
Wetland/marsh	29.0
Roads	4.0
Total Acres	560.0

The Lackaff meets the needs of the Commission and the Service by providing the following:

- 1) The property will allow reconciliation of the Cooperative Agreement between the Commission and the Taylors for Almeria. The Cooperative Agreement requires the Commission to seek out and locate a replacement property which the Lackaff provides;
- 2) the Lackaff acquisition will meet the need to resolve the Federal Aid loss of management control of Almeria and place management control on the Lackaff acquisition;
- 3) Acquisition of Lackaff as a replacement for Almeria will allow the Commission to retain the use of Wildlife Restoration funds; and
- 4) the prerogative of the Commission in obtaining the Lackaff as a replacement property for Almeria, is based upon justified and delineated needs and habitat factors relating to equal benefits and equal value. These criteria were: a) native grassland prairie, with wet meadows, for grassland bird species; b) good fishing access to a riverine environment; c) emergent wetlands in an established riparian zone; d) larger, established woodlands for two deer species and turkey to benefit hunters, and e) habitat types to support furbearers.

Fish

Neighboring Twin Lakes supports good populations of aquatic wildlife including northern pike (*Esox lucius*), black crappie (*Pomoxis nigromaculatus*), bass (*Micropterus* spp), bluegill (*Lepomis macrochirus*), and yellow perch (*Perca flavescens*).

Wildlife

Numerous mammal, bird, reptile, and amphibian species are associated with the sandhills prairie and wetlands on Lackaff. The most prevalent terrestrial wildlife species includes white-tailed deer (*Odocoileus virginianus*), greater prairie chicken (*Tympanuchus cupido pinnatus*), turkey (*Meleagris gallopavo*), cottontail rabbit (*Sylvilagus floridanus*), racoon (*Procyon lotor*), and various waterfowl and passerine birds. Nebraska has some 400 bird species which regularly occur in the State (Sharpe et al., 2001), due to the Nebraska's strategic geographic location and its diversity of habitats. There is management potential for all of these species available on Lackaff.

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Table 3. The current list of federally-listed endangered, threatened, proposed, and candidate species may inhabit the area in and around the Lackaff:

Common Name	Scientific Name
Western Prairie Fringed Orchid (T)	<i>Platanthera praeclara</i>
Bald eagle (T)	<i>Haliaeetus leucocephalus</i>
Whooping crane (E)	<i>Grus americanus</i>
Black-footed Ferret (E)	<i>Mustela nigripes</i>
Black-tailed Prairie Dog (C)	<i>Cynomys ludovicianus</i>
Interior Least Tern (E)	<i>Sterna antillarum</i>

E = Endangered; T = Threatened; C = Candidate

The descriptions of these species including their critical habitat requirements and occurrence at Lackaff are as follows:

Western Prairie Fringed Orchid

The western prairie fringed orchid (*Platanthera praeclara*) is found in the Sandhills of Nebraska and was historically documented to be common in the wet valleys of the sandhills. Across its range, it has declined more than 60 percent in population numbers and vastly more in plant numbers. The orchid declined to less than a dozen populations with fewer than 600 plants and was listed as a threatened species under both the federal and Nebraska endangered species acts. There is an existing recovery plan for the orchid (USFWS, 1993). The Commission has also published a brochure as part

of the series of Nebraska's Threatened and Endangered Species on the orchid (NGPC, 1993). While habitat for this species exists on Lackaff, there is no record or documentation of its occurrence on the property.

Bald Eagle

Bald eagles (*Haliaeetus leucocephalus*) have used cottonwood groves adjacent to Sandhill lakes as winter roosting and summer nesting sites. Although not yet documented, the cottonwood grove on the Lackaff is potential bald eagle habitat. There are no current nests or roosting sites for bald eagles on Lackaff.

Whooping Crane

Though there are no documented occurrences of whooping cranes (*Grus americanus*) on the Lackaff, they are known to use Sandhills wet meadows and marshes during migration for roosting and feeding.

Black-footed Ferret

The black-footed ferret (*Mustela nigripes*) depends almost exclusively on prairie dogs for food, shelter, and denning (Henderson et al., 1969; Forrest et al., 1985 & 1988). The range of the black-footed ferret coincides with that of three prairie dog species (Anderson et al. 1986), and black-footed ferrets with young have been documented only in the vicinity of active prairie dog colonies. Black-footed ferrets have been historically reported in association with black-tailed prairie dogs (*Cynomys ludovicianus*), white-tailed prairie dogs (*Cynomys leucurus*), and Gunnison's prairie dog (*Cynomys gunnisoni*) towns (Anderson et al. 1986). There are no populations of black-footed ferrets found on or near the Lackaff, including the Twin Lakes WMA.

Black-tailed Prairie Dog

The black-tailed prairie dog (*Cynomys ludovicianus*) is an integral part of the prairie grassland ecosystem and their presence increases both animal and plant diversity (USFWS, 1995). The black-tailed prairie dog provides important habitat and is prey for many species. The endangered black-footed ferret (*Mustela nigripes*), mountain plover (*Charadrius montanus*), Western burrowing owl (*Athene cunicularia*), swift foxes (*Vulpes velox*), badger (*Taxidea taxus*), and Ferruginous hawk (*Buteo regalis*) are often found using black-tailed prairie dog habitats. Burrowing and grazing activities of black-tailed prairie dogs affect many ecosystem functions and processes, including vegetation structure, plant composition, nutrients available in soil for plants, soil turnover, soil chemistry, energy flows, nutrient quality of plants, and plant succulence (Whicker and Detling, 1993). The State of Nebraska released a draft conservation plan for the black-tailed prairie dog in July 2001 (NGPC, 2001). There are no populations of black-tailed prairie dogs on the Lackaff or the adjoining Twin Lakes WMA. The lack of prairie dog colonies on the Lackaff is probably due to the high ground water table in the area which precludes the building dens by prairie dogs.

The Interior Least Tern (*Sterna antillarum*) is primarily found along larger river systems that provide high and dry exposed sandbars for nesting. The tern is also attracted to the large sandpiles produced in sand-mining operations adjacent to the Platte River. Because of the ephemeral nature of their breeding habitat, this species could be considered a successional specialist, and thus its breeding locations cannot be predicted with certainty from year to year. Breeding birds are restricted to the

Missouri, Platte, lower Niobrara, lower Loup, and lower Elkhorn River systems. The most recent comprehensive censuses of breeding birds was made by Ducey (1984) and Sidle and others (1991). Results show 87 breeding populations in the Loup River area and 26 populations in the Elkhorn River.

Contemporary stream flows along the Platte River and bank stabilization along the Missouri River have contributed to a reduction of suitable breeding habitat and a gradual decrease in Least tern numbers. Consequently, the Nebraska subspecies *S. A. anthalassos* has been designated as endangered by the Service (Sharpe et al., 2001). There are no known populations of the Interior Least Tern found on Lackaff or in the general vicinity of Twin Lakes Wildlife Management Area.

A review of the Lackaff tract and the Twin Lakes WMA found no “records of state or federal threatened and endangered, candidate or proposed species on or in the vicinity of the site of the property proposed for acquisition” (Appendix H).

Habitat - Vegetation

Four plant community types occur on the Lackaff -- Sandhills Dune Prairie, Sandhills Open Water Marsh, Sandhills Fresh Water Marsh, and Northern Cordgrass Wet Prairie.

Sandhills Dune Prairie - The majority of both the north and south parcels of Lackaff are upland sand dunes dominated by Sandhills Dune Prairie. The north parcel has been overgrazed and the quality of that prairie is probably “C” (Nebraska Natural Heritage Program ranking criteria) while the south parcel, although heavily grazed, is a “BC.” The predominant grass species in the Sandhills Dune Prairie is hairy grama (*Bouteloua hirsuta*), prairie sandreed (*Calamovilfa longifolia*), and sun sedge (*Carex heliophila*). Other common species include Schweintz flatsedge (*Cyperus schweinitzii*), sand lovegrass (*Eragrostis trichodes*), sand muhly (*Muhlenbergia pungens*), little bluestem (*Schizachyrium scoparium*), and sand bluestem (*Andropogon hallii*). The most common shrub species is yucca (*Yucca glauca*), leadplant (*Amorpha canescens*), prairie rose (*Rosa arkansana*), and poison ivy (*Toxicodendron rydbergii*). Perennial forbs are not as conspicuous as in the less heavily grazed Sandhills prairie. The most abundant native forbs found on the Lackaff sand dunes include: stiff sunflower (*Helianthus pauciflorus*), spiderwort (*Tradescantia occidentalis*), showy vetchling (*Lathyrus polymorphus*), puccoon (*Lithospermum carolinense*), brittle pricklypear (*Opuntia fragilis*), and penstemon (*Penstemon angustifolius*). Native annuals are also conspicuous, particularly in areas of active natural and man-made erosion, and include umbrella plant (*Eriogonum annuum*), Geyer spurge (*Euphorbia geyeri*), Missouri spurge (*E. missurica*), pitseed goosefoot (*Chenopodium berlandieri*), narrowleaf goosefoot (*C. pratericola*), winged pigweed (*Cycloloma atriplicifolium*), sandhills fleabane (*Erigeron bellidiastrum*), snake cotton (*Froelichia floridana* var. *campestris*), and prairie flax (*Linum rigidum*).

Sandhills Open Water Marsh - Plant species in this community on the Lackaff include duckweed (*Lemna* spp.), water smartweed (*Polygonum amphibium*), and *Wolffia* spp. Submergent plants include coontail (*Ceratophyllum demersum*) and pondweeds (*Potamogeton* spp.). Emergent vegetation is uncommon in the wetland.

Sandhills Fresh Water Marsh - Plant species of this community on the Lackaff include many submersed and floating-leaved varieties such as duckweed (*Lemna* spp.), *Wolffia* spp., coontail (*Ceratophyllum demersum*), and pondweeds (*Potamogeton* spp.). Common emergent plants in areas of intermediate water depth include spikesedge (*Eleocharis erythropoda*), swamp smartweed (*Polygonum coccineum*), hardstem bulrush (*Schoenoplectus acutus*), three-square bulrush (*S. pungens*), arrowhead (*Sagittaria latifolia*), bur reed (*Sparganium eurycarpum*), and cattail (*Typha latifolia*). In shallow watered parts of the marsh dominant emergent plants include rice cutgrass (*Leersia oryzoides*), smartweeds (*Polygonum* spp.), and beggarticks (*Bidens* spp.).

Northern Cordgrass Wet Prairie - The water table in this community is close to the soil surface; the soil remains waterlogged or even flooded during much of the season. Standing water is normally present in winter or spring and following heavy rains. Dominant plants include hydrophytic grasses such as sedges (*Carex emoryi* and *C. pellita*), northern reedgrass (*Calamaogrostis canadensis*), and prairie cordgrass (*Spartina pectinata*). Scattered shrubs are present including sandbar willow (*Salix exigua*), false indigobush (*Amorpha fruticosa*) and red osier (*Cornus sericea*). Forbs common in the area include viscid euthamia (*Euthamia gymnospermoides*), wild licorice (*Glycyrrhiza lepidota*), loosestrife (*Lythrum alatum*), water horehound (*Lycopus americanus*), field mint (*Mentha arvensis*), water hyssop (*Stachys pilosa*), and ironweed (*Vernonia fasciculata*). Exotic grasses are present in the meadow including redtop (*Agrostis gigantea*), reed canarygrass (*Phalaris arundinacea*), and timothy (*Phleum pratense*).

Habitat - Topography and Soils

The topography of the Lackaff is composed of rolling upland sand dunes with interdunal valleys that support wetland areas.

The upland sand dunes are composed of poorly developed very fine to moderately coarse sandy soils that are rapidly drained and are formed in eolian sand. The soils are highly permeable and runoff is often negligible.

The soils of the interdunal wetland areas consist of various types: sand; shallow to deep layers of unconsolidated organic matter over sand that are very poorly-drained; or deep, well-developed, poorly-drained loam and sandy loams. These soils are flooded or water logged through most of the year.

There are no prime or unique farmlands, as defined by the Natural Resources Conservation Service, on Lackaff.

Habitat - Floodplains and Wetlands

There are no floodplains on Lackaff. The Lackaff supports approximately 112 acres of wetlands in the interdunal valleys -- 32 acres of sandhills open water marsh and 80 acres of sandhills freshwater marsh. These wetlands are fed by groundwater and their surface water levels fluctuate seasonally

with groundwater levels. The sandhills open water marsh communities have 0.5 to 1.5 meters water depths.

The north parcel (80 acres) includes two wetland areas. A small one lies in the southwest corner and a larger in the eastern half. The majority of these wetlands, consist of sandhills open water marsh. They are dominated by open water with sandy shorelines surrounded by a narrow band of northern cordgrass wet prairie. The Nebraska Natural Heritage Program ranks these wetlands as C-grade. The wetland inventory maps describe three types of palustrine, emergent wetlands in this tract. These wetlands are either temporarily, seasonally, or semi-permanently flooded (Appendix I). The sandhills open water marsh community has water depths of approximately 0.5-1.5 meters. Soils of these marshes consist of sand or shallow to deep layers of unconsolidated organic matter over sand. Floating-leaved plants in this community include duckweed (*Lemna* spp.), water smartweed (*Polygonum amphibium*), and *Wolffia* spp. Submergent plants include coontail (*Ceratophyllum demersum*) and pondweeds (*Potamogeton* spp.). Emergent vegetation is uncommon in the wetland.

The northern cordgrass wet prairie community contains a water table which is close to the surface; soils remain waterlogged or even flooded throughout much of the season. Standing water is normally present in winter or spring and following heavy rains. In the Lackaff meadows, dominant plants include hydrophytic graminoids such as sedges (*Carex emoryi* and *C. pellita*), northern reedgrass (*Calamaogrostis canadensis*), and prairie cordgrass (*Spartina pectinata*). Scattered shrubs are present including sandbar willow (*Salix exigua*), false indigobush (*Amorpha fruticosa*) and red osier (*Cornus sericea*). Forbs are uncommon to locally common, some of the more common species include viscid euthamia (*Euthamia gymnospermoides*), wild licorice (*Glycyrrhiza lepidota*), loosestrife (*Lythrum alatum*), water horehound (*Lycopus americanus*), field mint (*Mentha arvensis*), water hyssop (*Stachys pilosa*), and ironweed (*Vernonia fasciculata*). Exotic grasses are present in the meadow including reedtop (*Agrostis gigantea*), reed canarygrass (*Phalaris arundinacea*), and timothy (*Phleum pratense*).

The south parcel (480 acres) includes several areas of wetlands. The western portion contains an extension of the main body of Twin Lakes. This extension contains palustrine, emergent, temporary and seasonally flooded wetlands (Appendix I). Small scattered wetlands occur in pockets among sand dunes in the southwest corner and a palustrine, emergent, semi-permanently flooded wetlands (Appendix I). The main body of the large wetland on the east side of the tract consists of sandhills freshwater marsh and is a palustrine, emergent, temporarily flooded wetland (Appendix I). A patch of northern cordgrass wet prairie, approximately 40 acres in size, occurs on the south side of the large marsh. Northern cordgrass wet prairie (see description above) also forms bands around the smaller marshes in the southeast corner of the tract. The wet prairies appear to be B-BC grade. There is an established cottonwood grove located on the south tract.

The sandhills freshwater marshes are flooded or waterlogged through most of the year and surface water levels fluctuate seasonally with groundwater levels. Deeper areas of the freshwater marsh on the property contain many submersed and floating-leaved plant species common in Sandhills Open Water Marsh community including duck weed (*Lemna* spp.), *Wolffia* spp., coontail (*Ceratophyllum demersum*), and pondweed (*Potamogeton* spp.). Common emergent plants in areas of intermediate

water depth include spikesedge (*Eleocharis erythropoda*), swamp smartweed (*Polygonum coccineum*), hardstem bulrush (*Schoenoplectus acutus*), three-square bulrush (*S. pungens*), arrowhead (*Sagittaria latifolia*), bur reed (*Sparganium eurycarpum*), and cattail (*Typha latifolia*). In shallow watered parts of the marsh, dominant emergent plants include rice cutgrass (*Leersia oryzoides*), smartweeds (*Polygonum* spp.), and beggarticks (*Bidens* spp.).

A wetlands review of the addition to Twin Lakes WMA of the Lackaff tract was completed by the Commission and stated, “this acquisition will pose no detriment to existing wetlands. In fact, existing wetlands will be protected on this WMA.” (Appendix J).

Historical and Cultural Resources

A cultural, historical, and archaeological resources desk review of the Lackaff Tract was conducted September 18, 2001 by Terry Steinacher, H.P. Archaeologist. The review was done according to the implementing regulations for the National Historic Preservation Act (36 CFR 800) (Appendix E). A letter signed by L. Robert Puschendorf, Deputy Nebraska State Historical Preservation Office, was sent to the Commission to verify the review finding for the Lackaff on September 18, 2001 (Appendix K). The review determined that no survey for unrecorded cultural resources would be required and that the tract does not contain recorded archaeological resources.

Socioeconomic Resources

Species occurring on the Lackaff that provide hunting, trapping, and fishing opportunities include white-tailed deer (*Odocoileus virginianus*), various waterfowl, greater prairie chicken (*Tympanuchus cupido pinnatus*), doves, various furbearers, cottontail rabbit (*Sylvilagus floridanus*), northern pike (*Esox lucius*), and black crappie (*Pomoxis nigromaculatus*).

Water Resources and Water Quality

Twin Lakes Wildlife Management Area comprises 143.10 acres with the Twin Lakes occupying 70 acres. When seasonal rains occur the Twin Lakes expand to include portions of the Lackaff. The Twin Lakes support an excellent fishery. There are also 32 acres of marsh land on the management area. Groundwater feeds the wetland areas that occur on the tract and the water quality is good. No streams or rivers traverse the property.

Air quality

The air quality of the vicinity of the Lackaff is good.

ENVIRONMENTAL CONSEQUENCES

ALTERNATIVE 1 - PREFERRED

ALMERIA MEADOWS WILDLIFE MANAGEMENT AREA

Fish

The environmental consequences to fish and the fishery of the North Loup River with the transfer of Almeria from Commission ownership to private ownership are expected to be minimal. While the proximity of Almeria to the banks of the North Loup River allows for a variety of aquatic wildlife the marshy and wet meadow conditions are not favorable to agricultural use different than is currently taking place. The existence of channel catfish (*Ictalurus punctatus*) as the primary sport fish species and the recognition of their range of tolerance in both water quality and condition would indicate current conditions, even under current agricultural practices, are not having a negative effect on the fish fauna. Historical sampling of the North Loup River (Bliss and Schainost, 1973) found an additional 40 species of fish including carp (*Cyprinus carpio*)(Appendix J). The occurrence in the watershed of this variety of fauna would indicate those species are not being affected by agriculture practices upstream or in proximity to Almeria. The Draft Deed Restrictions which will accompany the transfer in ownership, provide for no new or additional agricultural practices to occur within the meadow, the marsh area, or the riparian zone.

There were fish surveys completed in 1970 and 1973 by the Commission which identified species associated in all the rivers and streams of Nebraska. A recent fish survey noted the occurrence of populations of Topeka Shiner (*Notropis [Hybopsis] topeki*) upstream in the North Loup River and Brush Creek in Cherry County, near Brownlee, NE. There is no evidence of the Topeka Shiner in the North Loup River adjacent to Almeria or within the boundaries of Loup County (pers. comm. Wally Jobman, USFWS, 2001). There appear to be no impacts on the channel or habitats found in the North Loup River due to existing farming activities on Almeria which would negatively affect fish species or aquatic organisms.

Wildlife

Restrictions placed on the deed for Almeria would prevent any major destruction of wildlife or wildlife habitat. Although unplanned, development of the available undisturbed areas would result in the some displacement of small mammals inhabiting that area and the loss of forage and use of the area by other species.

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Restrictions placed on the deed for Almeria would provide adequate protection for the western prairie fringed orchid, bald eagle, and whooping crane. The restrictions would prohibit activities that would cause destruction or damage to the western prairie fringed orchid population such as plowing, overgrazing, or broad scale herbicide application. The Deed Restrictions placed on Almeria provide

for the Commission to “retain the right to monitor the orchid population and land management activities. This allows agents of the Nebraska Game and Parks Commission to enter upon the property and evaluate the entire property for compliance to these terms and conditions.”

Prevention of these activities would also protect existing habitat at Almeria that could be used by whooping cranes for feeding and loafing. The riverine roosting habitat of the whooping crane would not be affected. Cutting of existing cottonwoods would also be prohibited via the deed restrictions, thereby conserving potential roosting, feeding, and nesting sites for bald eagles. Activities that could be undertaken by the Commission which might improve habitat for these species, such as prescribed burning, grazing and haying, or tree clearing, would not occur.

Habitat - Topography and Soils

The continued farming on Almeria would result in continued soil disturbance and minimal soil erosion by wind. Restrictions to the deed would prevent any other land from being plowed or broken (Appendix B).

Habitat - Vegetation

Restrictions placed on the deed for Almeria would prohibit any major alterations to plant communities on the site such as plowing, overgrazing, broad scale herbicide application, or introduction of exotic species.

Habitat - Floodplains and Wetlands

Restrictions placed on the deed for Almeria would prohibit any draining, tilling, or filling of existing wetlands.

Cultural, Historical, and Archaeological Resources

There are no identified cultural, historical, or archaeological resources existing on the property and thus there are expected to be no effects associated with these resources.

Socioeconomic Resources

No loss of consumptive or recreational opportunities would occur as a result of the transfer of Almeria. The current restrictions on hunting prohibit this recreational component of wildlife management. The openness of the property to public use angling on the river would probably have little to no effect on the resource and on economic benefit to the area.

Water Resources and Quality

Draft Restrictions placed in the deed and agreed to by the Taylors, along with the authority of the Commission to review land use on Almeria, are expected to prevent any degradation or impact to water resources and water quality on the property.

Air Quality

No effects to air quality are expected since the existing use of Almeria would continue.

LACKAFF TRACT

Fish

The neighboring Twin Lakes supports good populations of aquatic wildlife including northern pike (*Esox lucius*), black crappie (*Pomoxis nigromaculatus*), bass (*Micropterus* spp), bluegill (*Lepomis macrochirus*), and yellow perch (*Perca flavescens*). The addition of Lackaff as a Wildlife Management Area would add to the quality of the fishery. The additional acreage would allow the Commission access to additional habitats which would provide juvenile cover and adult breeding areas as the lakes expand in wet years. Management by the Commission would also entail the removal of rough fish through the use of rotenone and other piscicides which is not currently available to private ownership. The Commission would restock these lakes yielding an increase in public use and provide regulations on the harvest through regulation.

Wildlife

Additional protection of property that ultimately could have been developed or otherwise used in a manner that could have resulted in the loss or degradation of habitat and loss of existing wildlife populations. Long-term preservation of the land for wildlife and habitat previously outside the control of the Commission would include improved grazing practices and prescribed burns. These additional management tools would be used to improve game forage and to increase the wildlife resources on the management area..

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Management by the Commission on this previously privately owned tract of land would allow greater flexibility on provisions for critical habitats for threatened, endangered, proposed and candidate species than would be available in private ownership. If species were identified as utilizing the management area, prescriptions for their protection would be implemented by the Commission. If for instance, a population of the prairie fringed orchid was found on the property, the Commission could institute habitat manipulations which would benefit this species and others.

Habitat - Topography and Soils

The Commission would manage for soil erosion by instituting several activities including elimination, if necessary, of grazing on affect parts of the tract, replanting of prairie grasses, or exclusion and resting of areas which showed severe erosion. Ownership by the Commission would restrict overgrazing by livestock and would allow monitoring of grazing by wildlife species; appropriate measures would be instituted to eliminate conditions which would lead to future erosion of the soils and subsequent changes in topography.

Habitat - Vegetation

Acquisition and management of the Lackaff by the Commission would provide for improved management of the plant communities presently found on the site, which are currently overgrazed. The Commission would restrict and lessen the current grazing practices and production management of the tract. The use of prescribed burns would allow control and management of cool season noxious grasses and along with replanting and seeding the Commission could increase the percentage of native prairie grasses on the area.

Habitat - Floodplains and Wetlands

Acquisition of the Lackaff would prevent any future draining, tilling, or filling of existing wetlands. There is no present management of the wetlands associated with the Lackaff under private ownership. Management by the Commission could include seasonal intense grazing for a short period of time to control problematic wetland plants such as cattails. Prescribed burns could also be used to control canary reed grass. These management activities would improve the capacity of the wetlands to perform their natural processes and provide additional water quality, cover for aquatic species, and increased wildlife forage.

Cultural, Historical, and Archaeological Resources

There are no cultural, historical, or archaeological resources existing on the property and thus there are no effects associated with these resources.

Socioeconomic Resources

Acquisition of the Lackaff would result in better publicity of the area which would increase the public's use in terms of angling and hunting. Additional land on the wildlife management area would mean more hunting for ducks and other waterfowl. Surveys would be conducted if a described program or project was needed on the area. At present, this is not being accomplished under private ownership.

Water Resources and Quality

Acquisition of the Lackaff Tract would provide a buffer to the Twin Lakes Wildlife Management Area and help prevent any future degradation of water quality at that site. The Commission would restrict and regulate livestock permitted to graze on the area as part of the overall management; exclusion of livestock would improve water quality.

Air Quality

No effects to air quality are expected.

ALTERNATIVE 2

The environmental consequences of Alternative 2 would not change the current activities at Almeria in the near future. The Commission continues to own and manage the property as described in the Cooperative Agreement with the Taylors. Canceling the Cooperative Agreement, as stated in the Alternatives Section, would most likely result in litigation by the Taylor's against the Commission. Regaining management control of Almeria would not change the current management activities including planting and reaping on FSA crop land for reduction of noxious and weedy plant species, continuation of haying the meadow once per growing season to reduce fire hazard and thatch buildup, and hunting on the property would continue to be restricted.

Fish

Regaining management control of Almeria in relationship to the fishery available in the North Loup River would not change. The Commission does not stock the river at present, nor does it have any intent to do so without adequate planning and a described need. The fish species in the river would continue to live and breed in habitats currently available; there are no plans to alter or renovate existing fish habitats.

Wildlife

Regaining management control of Almeria would allow the Commission to accomplish several actions. The Commission would restore the current FSA cropland to native prairie grasses. The capability to manage the wet meadow for plant diversity would include selective and intense grazing for short periods of time, haying the meadow dependent on the results of evaluation and monitoring of grazing practices, and prescribed burns. These management efforts would guarantee control of noxious weeds on Almeria.

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Haying the wet meadow would be held off if evaluation of the prairie fringed orchid population was found to be in vegetative growth through the formation of corms. The prairie-fringed orchid is a variable plant inhabiting variable habitats. On Almeria, the orchid grows in sloughs or slight depressions in the soil created by some disturbance. They use this habitat because the water content is optimum for growth, especially vegetative growth of corms. The orchid rarely reproduces through seeds and seed pods are rarely found. This absence of sexual reproduction is due to lack of the hawk moth (Family Sphingidae) as a pollinator for the species. Haying, while allowing some disruption of the soils to provide additional disturbance for vegetative growth, could also restrict growth dependent on the season. The Commission would monitor this population greater than would probably be done under private ownership.

If endangered or threatened birds such as bald eagles or whooping cranes were found to be using habitats on Almeria, the Commission would restrict access to these sites, within 200 meters for

reduction by human impact. This restriction of access would probably consist of a few days and would allow these vagrant birds to rest or nest in the absence of human disturbance.

Habitat - Topography and Soils

The existing farming activities on Almeria would be terminated thereby eliminating any soil erosion associated with these activities. In addition, the Commission would pursue reestablishment of native prairie grasses on the areas currently under cultivation which would provide further protection against erosion and soil loss.

Habitat - Vegetation

Prescribed burning, haying, and grazing are management activities which would be used by the Commission to improve the vegetative characteristics on Almeria. Grazing by livestock would be closely monitored to describe its affects on soil disturbance and regeneration of plants. Monitoring of exotics, such as reed canary grass, purple loosestrife (*Lythrum salicaria*) and exotics in the stream-side marshes would be accomplished. Control of these species would be by removal and/or use of herbicides where appropriate, by Commission work crews.

Habitat - Floodplains and Wetlands

Prescribed burning and tree clearing on particular areas of Almeria would improve the value of existing wetlands for plant and wildlife habitat. This would be accomplished primarily by the control of exotic plant species which would encourage the growth of native vegetation.

No ditching, draining, or tiling is presently occurring and there are no management plans for future development of the existing wetlands or floodplains of Almeria. The lack of these human impact activities in the wetlands and on the floodplain ensures their long-term preservation (in the absence of natural environmental disasters such as floods).

Cultural, Historical, and Archaeological Resources

There are no cultural, historical, or archaeological resources existing on the property and thus there are no effects associated with these resources.

Socioeconomic Resources

Opening Almeria to public access for hunting, trapping, fishing, and wildlife-related recreation would greatly increase the socioeconomic value of the property. The direct impact of numbers of hunters is unknown due to the current Cooperative Agreement restrictions on hunting. Opening Almeria to hunting would increase the opportunities to hunters and probably be seen indirectly by increased visitation to the area. Additional information relative to socioeconomic effects on full use of Almeria are unknown and would require census of the area if it were open to total public use and recreation.

Air quality

No change in air quality would be expected except a reduction during planting and harvesting from dust from the FSA crop lands. Management of the area by the Commission would eliminate the FSA crop land and, thus eliminate seasonal use and disruption of these soils, releasing less dust in the air.

Water Resources and Water Quality

No effects to water quality or existing water resources is currently occurring on Almeria. Current farming practices do not affect the North Loup River or the water resources of the area due to their location away from wetland areas. Increased grazing on the area for extended periods of time, could however, have negative effects on the water quality.

ALTERNATIVE 3 - NO ACTION

Taking no action to resolve the loss of control of Almeria would result in the Commission remaining in violation of 50 CFR 80.14 the Wildlife Restoration Program. This could lead to a declaration of the State being ineligible to participate in the benefits of the Federal Aid in Wildlife Restoration program and a loss of their annual apportionment of these funds until resolution of the violation. This funding loss would have a significant impact on all of the resources for which the Commission has management responsibility.

Fish

The existing fisheries in the North Loup River would remain unaffected if the No Action alternative was selected. The Cooperative Agreement currently allows access onto the property for anglers. The Commission does not have plans to stock fish into this portion of the North Loup; thus the pressure from angling would probably remain constant and populations of fish in the river would not be over-fished.

Wildlife

Existing wildlife populations and habitat would be protected by restricting activities such as plowing of existing undisturbed areas or clear cutting. The shelterbelts that occur on Almeria would continue to provide cover and habitat for the existing wildlife populations. Active management and improvement of habitat for wildlife via prescribed burning, grazing and haying, or tree clearing would not be possible due to the terms of Agreement with the Taylors. The continuation of no hunting on Almeria would remain in effect and, with relaxation on population control through hunting, some wildlife species such as deer might increase in population size. The damage to crops and loss of browse by deer could be significant if the population increased significantly. Other management tools would be necessary to stabilize or reduce populations of graze and browse species if populations remain unchecked by other means such as hunting.

Federally-Listed Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat

Potential habitat for Federally-listed species and the existing population of the western prairie fringed orchid would continue to be protected by the Cooperative Agreement. The Agreement restricts destructive activities such as plowing of undisturbed native grassland and undisturbed wet meadow or clear cutting of the existing cottonwoods. Activities that might improve habitat for these species, such as prescribed burning, grazing and haying, or tree clearing would not be possible due to the terms of Agreement with the Taylors. Endangered, threatened, proposed or candidate species which immigrate onto Almeria would be protected in their habitats as accorded by law and policy of the Commission. These protections would have an effect on future negotiations of the equal value and equal benefits of the property in resolving the issue of loss of management control. These could in effect, lower the value of the land and add additional restrictions on use of the land for a future trade should the current preferred alternative not be selected. The existing Cooperative Agreement allows

seasonal haying of the meadow at a time which is beneficial to the Western Prairie Fringed Orchid; this condition would remain unchanged.

Habitat - Topography and Soil

The continuation of occasional tilling of the crop ground would result in soil disturbance and a small amount of soil erosion via runoff and wind. The existing Cooperative Agreement restricts plowing of undisturbed areas, use of herbicides for treatment of noxious vegetation and limits grazing of livestock on the property. There would be no affect on the topography or the soils due to management by the Commission under the Cooperative Agreement.

Habitat - Vegetation

Existing vegetation and plant communities would be largely protected by restricting activities such as plowing existing undisturbed areas or large scale herbicide application. Active management and improvement of vegetation by the Commission via prescribed burning, grazing and haying, or tree clearing would not be possible due to the terms of Cooperative Agreement with the Taylors.

Habitat - Floodplains and Wetlands

Existing floodplains and wetlands would be unaffected by this alternative. These habitats would be protected by restrictions on destructive activities such as ditching, draining, or tiling as currently outlined in the existing Cooperative Agreement. Active management and improvement of wetlands by the Commission would not be possible due to the terms of Agreement, but could be improved by the Taylors, upon approval by the Commission. Current agricultural practices would have no affect on the existing floodplains and wetlands.

Cultural, Historical, and Archaeological Resources

There are no cultural, historical, or archaeological resources existing on the property; thus, there are no effects associated with these resources.

Socioeconomic Resources

Public use of Almeria for hunting and trapping would continue to be restricted and not allowed; thus, no socioeconomic benefit from hunting would be attributed to this wildlife management area. The existing Cooperative Agreement would remain in effect and current agricultural crops and cattle grazing would not have a significant affect on either the recreation value of the land or on it economic value. Public access for fishing on the North Loup River, however would continue to be available, but would provide minimal economic or social impact on the community.

Water Resources and Quality

There would be no expected changes in the water resources or quality of water on Almeria as a result of this alternative. The existing Cooperative Agreement would remain in effect. There are no current agricultural or recreational activities occurring which would negatively impact the water resources or quality of water on Almeria.

Air Quality

No change in air quality would occur if the No Action Alternative was selected. The current cooperative agreement between the Taylors and the Commission would continue. No current agricultural activities are occurring which would impact air quality.

ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (1994), directs federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, any disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations. None of the alternatives listed in this document will disproportionately impact minority or low income populations.

CUMULATIVE IMPACTS

Cumulative impacts are the impacts on the environment which result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. The most notable potential cumulative impact associated with the activities described herein is the potential loss of \$6.7 million annually from the Federal Aid in Sport Fish and Wildlife Restoration programs as a result of not resolving the loss of control of Almeria. The effects of the loss of the Federal Aid funds would be devastating to the management and conservation of the natural resources of the State of Nebraska for which the Commission is responsible.

Impacts resulting from past and present actions in the same geographic area as the proposed actions of all Alternatives include:

- disturbance, excavation, and erosion of soil;
- minor modifications to topographic features;
- water depletion to the North Loup, Loup, Platte, and Missouri River systems;
- deposition of sediment into the North Loup River;
- development and use of the floodplains of the North Loup River;
- loss of vegetation and modification of native plant communities;
- fragmentation and loss of wildlife habitat;
- displacement of wildlife, disturbance to use of and movement through area by wildlife, and roadkill of wildlife;
- negligible change in air quality;
- decrease in area aesthetics;
- loss of access to area for hunting and outdoor recreation and decrease in quality of outdoor experiences; and
- change (both positive and negative) in quality of life for some area landowners and residents.

Other reasonably foreseeable future actions independent of the Proposed Action and Alternatives include an expansion of agricultural practices in the surrounding location which may create a negative impact on wildlife, wildlife habitat, and native plant communities. Expansion of agricultural practices may also cause more soil runoff and sediment erosion into the North Loup River, causing an increase in water turbidity and pollution.

The Preferred Alternative is not anticipated to induce further actions which would result in significant adverse effects to the environment, nor is it anticipated to result in cumulative impacts that are significantly greater than current existing effects.

CONSULTATION AND COORDINATION

The following agencies were consulted in gathering information for the preparation of this document:

- Nebraska Game and Parks Commission, Wildlife Division
- Nebraska Game and Parks Commission, Fisheries Division
- Nebraska State Historic Preservation Office
- U.S. Fish and Wildlife Service, Ecological Services, Grand Island Field Office
- Nebraska Natural Resource Commission, Floodplain Management Section
- Nebraska Department of Environmental Quality

The Division of Federal Aid requested an Intra-Service Section 7 Evaluation of Almeria from the FWS-Ecological Services Grand Island Field Station on November 9, 2001 (Appendix F). The result of this consultation resulted in a conclusion that the proposed action on Almeria, based on the draft deed restrictions would not likely adversely affect federally listed threatened, endangered, or candidate species (Appendix G).

Public Involvement and Participation.

Several articles have appeared in newspapers throughout the state. A June 6, 1999 article in the Lincoln Journal Star provided a detailed and accurate time line of events regarding Almeria Meadow WMA acquisition and the Cooperative Management Agreement signed with the Taylors.

A June 8, 1999 article printed in the Grand Island Independent identified the dispute between the USFWS, NGPC and the Taylors. It noted the Commission agreed to lease the meadow to the Taylors in exchange for providing a one mile stretch of the North Loup River for public access. It also noted the management agreement was subsequently opposed by the FWS. This article generated interest from Marlan Ferguson, a relative of Rosa Worth, the previous and original landowner of the Almeria property. He indicated in a letter dated June 22, 1999 to the Commission that he was interested in acquiring the property and he felt that Rosa would have sold it to family members if she had known that it could someday become private property. Unfortunately, Rosa has passed and the Commissioners felt that since the Commission paid fair market value for the property, the Commission could determine the disposition of the property.

The Commission approved a motion on July 23, 1999 at their regular meeting stating "the Game and Parks Commission offer to John and Laura Taylor 57-acres of Almeria Meadow Wildlife Management Area for other wildlife lands of equal or greater wildlife value and that we make that offer as a full accord and satisfaction of the Cooperative Management Agreement dated March 1, 1996". Advanced public notice was published in the Lincoln Journal Star on July 16, 1999.

A July 24, 1999 article in the Lincoln Journal Star noted that the Commission offered to trade 57 acres to Taylor to provide a safety buffer. Taylor accepted the 57 acres but only as a partial solution. Adding that the management agreement gave him "agricultural rights" to the entire 272 acre tract.

Advanced public notice of the Commission Meeting of March 17, 2000, was published in the Lincoln Journal Star on March 10, 2000. Marlan Ferguson of Grand Island appeared to inform the Commission that if the Almeria Meadow WMA became available for public purchase, he would be interested in obtaining the property. Nonetheless, the Commission approved a motion to prepare to trade the entire parcel of land designated as Almeria Meadow WMA to the Taylors.

In addition, a March 26, 2000 article appeared in the Lincoln Journal Star noting the dispute with Taylor, the adjacent landowner. It also described Commission plans to trade the land to Taylor for another tract of land in close proximity to be paid for by Taylor.

The acquisition of the Lackaff property was the subject of a public hearing held in the Assembly Room in Rock County Courthouse, Bassett, Nebraska, at 1:00 PM, on Monday August 27, 2001. Bruce Sackett, NGPC, Realty Division Administrator, chaired the hearing in which no adverse comments were recorded concerning the acquisition.

The acquisition of the Lackaff tract in which a portion shall be used in the exchange of Almeria Meadow WMA was presented at the Nebraska Game and Parks Commission meeting in Lincoln, Nebraska on August 30, 2001. This was a public meeting in which no comments were received.

A public notice announcing the availability of the draft EA for public review and comment was published in the following newspapers: the Omaha World Herald, Douglas County Nebraska; the Lincoln Journal Star, Lancaster County Nebraska; and the Burwell Tribune, Loup County Nebraska.

Environmental Assessment (EA)

This EA was made available to the public for a 30-day review period beginning on June 28, 2002 through July 28, 2002.

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APPENDICES

- A. Cooperative Management Agreement between Nebraska Game and Parks Commission and Mr. and Mrs. John Taylor.
- B. Draft Quit Claim Property Deed with Restrictions for Land Transfer of Almeria Meadows Wildlife Management Area.
- C. Species of fish historically sampled in the Loup Basin.
- D. Intra-Service Consultation on Nebraska Game and Parks Commission Land Trade of Almeria Meadows Wildlife Management Area.
- E. Intra-Service Consultation Concurrence from FWS-Ecological Services Grand Island Field Office on Almeria Meadows Wildlife Management Area.
- F. Wetland Inventory of Loup County, Nebraska (Almeria Meadows WMA).
- G. Nebraska State Historical Society Review of Cultural, Historical and Archaeological Resources on Almeria WMA.
- H. Threatened and Endangered Species Review of the Lackaff tract by the Nebraska Game and Parks Commission.
- I. Wetland Inventory of Rock County, Nebraska (Lackaff tract addition).
- J. Wetlands Review of Lackaff tract addition to Twin Lakes WMA.
- K. Nebraska State Historical Society Review of Cultural, Historical and Archaeological Resources on Lackaff Tract addition to Twin Lakes WMA.

Appendix A

**Cooperative Management Agreement
between
Nebraska Game and Parks Commission
and
Mr. and Mrs. John Taylor.**

Appendix B

**Draft Quit Claim Property Deed
with
Restrictions
for
Land Transfer
of
Almeria Meadows Wildlife Management Area**

Appendix C

Species of fish historically sampled in the Loup Basin

Species of fish historically sampled in the Loup Basin (Bliss and Schainost, 1973).

<u>Common name</u>	<u>Scientific Name</u>	<u>Common name</u>	<u>Scientific Name</u>
Goldeye	<i>Hiodon alosoides</i>	Brown trout	<i>Salmo trutta</i>
Bigmouth Shiner	<i>Notropis dorsalis</i>	Brassy Minnow	<i>Hybognathus hankinsoni</i>
Carp	<i>Cyprinus carpio</i>	Common Shiner	<i>Notropis cornutus*</i>
Creek Chub	<i>Semotilus atromaculatus</i>	Emerald Shiner	<i>Notropis atherinoides</i>
Fathead Minnow	<i>Pimephales promelas</i>	Finescale Dace	<i>Phoxinus neogaeus**</i>
Flathead Chub	<i>Hybopsis gracilis</i>	Golden Shiner	<i>Notemigonus crysoleucas</i>
Longnose Dace	<i>Rhinichthys cataractae</i>	Pearl Dace	<i>Semotilus margarita**</i>
Plains Minnow	<i>Hybognathus placitus</i>	Red Shiner	<i>Notropis lutrensis</i>
Sand Shiner	<i>Notropis stramineus</i>	Silvery Minnow	<i>Hybognathus nuchalis</i>
Speckled Chub	<i>Hybopsis aestivalis</i>	Stoneroller	<i>Campostoma anomalum</i>
Quillback Carpsucker	<i>Carpiodes cyprinus</i>	River Sucker	<i>Carpiodes carpio</i>
Shorthead Redhorse	<i>Moxostoma macrolepidotum</i>	White Sucker	<i>Catostomus commersoni</i>
Black Bullhead	<i>Ictalurus melas</i>	Channel Catfish	<i>Ictalurus punctatus</i>
Flathead Catfish	<i>Pylodictis olivaris</i>	Stonecat	<i>Noturus flavus</i>
Yellow Bullhead	<i>Ictalurus natalis</i>	Plains Killifish	<i>Fundulus kansae</i>
Plains Topminnow	<i>Fundulus sciadicus</i>	Brook Stickleback	<i>Culaea inconstans*</i>
Black Crappie	<i>Pomoxis nigromaculatus</i>	Bluegill	<i>Lepomis macrochirus</i>
Green Sunfish	<i>Lepomis cyanellus</i>	Largemouth Bass	<i>Micropterus salmoides</i>
Smallmouth Bass	<i>Micropterus dolomieu</i>	White Crappie	<i>Pomoxis annularis</i>
Iowa Darter*	<i>Etheostoma exile</i>	Freshwater Drum	<i>Aplodinotus grunniens</i>

* Limited distribution in Nebraska

** Rare in Nebraska

Appendix D

**Intra-Service Consultation
on
Nebraska Game and Parks Commission
Land Transfer
of
Almeria Meadows Wildlife Management Area**

Appendix E

**Intra-Service Consultation Concurrence
from
FWS-Ecological Services
Grand Island Field Office
on
Almeria Meadows Wildlife Management Area**

Appendix F

Wetland Inventory of Loup County, Nebraska (Almeria Meadows WMA)

Appendix G

**Nebraska State Historical Society
Review
of
Cultural,
Historical
and
Archaeological Resources
on
Almeria Meadows WMA.**

Appendix H.

**Threatened and Endangered Species Review
of
Lackaff Tract
by the
Nebraska Game and Parks Commission**

Appendix I

Wetland Inventory Map of Rock County, Nebraska

Appendix J.

**Nebraska State Historical Society
Review of Cultural, Historical, and Archaeological Resources
on the
Lackaff Tract addition to Twin Lakes WMA.**

Appendix K.

**Wetlands Review
of the Lackaff tract addition
to Twin Lakes WMA.**