

UNITED STATES OF AMERICA 84 FERC _ 61,079
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: James J. Hoecker, Chairman;
Vicky A. Bailey, William L. Massey,
Linda Breathitt, and Curt H, bert, Jr.

Central Nebraska Public Power)
and Irrigation District)
)

Project No. 1417-001

ORDER ISSUING NEW LICENSE

(Issued July 29, 1998)

On June 21, 1984, the Central Nebraska Public Power and Irrigation District (Central) filed an application under Part I of the Federal Power Act (FPA) for a new license to continue to operate and maintain the existing 105.9 megawatt (MW) Kingsley Dam Project, located on the North Platte and Platte Rivers in Garden, Keith, Lincoln, Dawson, and Gosper Counties in south-central Nebraska. 1/ The original license for this project expired on June 30, 1987. Since that time, Central has operated the project under an annual license.

Concurrently with this order, we are issuing an Order Approving Offer of Settlement and Issuance of New Licenses (Master Order), which discusses issues common to this project and Nebraska Public Power District's Project No. 1835. That order is incorporated by reference herein. This order pertains to the Kingsley Dam Project.

PROJECT DESCRIPTION

Project No. 1417, the Kingsley Dam Project, consists of dams, reservoirs, canals, and powerplants. The 3-mile long Kingsley Dam, on the North Platte River, impounds Lake McConaughy, which has a surface area of 30,500 acres and a

1/ The project is required to be licensed pursuant to
Section 23(b)(1) of the FPA, 16 U.S.C. _ 817(1), because
it is located on the North Platte and Platte Rivers, which
are Commerce Clause streams tributary to the navigable
Missouri River; it was constructed after 1935; and it affects the

interests of interstate commerce because of its
interconnection with the interstate electrical grid.

The Commission originally licensed the project based on its
potential to affect the navigable capacity of the
Missouri River. See Federal Power Commission 18th Annual Report
at 47-48 (1937).

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maximum allowable storage capacity of 1,790,000 acre-feet.
Kingsley Hydro, a 51.9-MW single-turbine hydroelectric plant,
abuts Kingsley Dam and discharges to Lake Ogallalla. The Central
(or Tri-County) Diversion Dam, located 50 miles downstream of
Kingsley Dam at the confluence of the North Platte and South
Platte rivers, diverts Platte River flow into the 75-mile-long
Supply Canal, which incorporates 27 dams and impoundments and
three 18-MW hydroelectric powerplants (Jeffrey, Johnson No. 1,
and Johnson No. 2).

The Kingsley Hydro Plant contains one 51,900-kW turbine and
one 59,470-kW generator, with an installed capacity of 51,900 kW.
The Jeffrey Hydro Plant contains two 9,750-kW turbines and two
9,000-kW generators, with a installed capacity of 18,000 kW. The
Johnson No. 1 Hydro plant contains two 9,750-kW turbines and two
9,000-kW generators, with an installed capacity of 18,000 kW.
The Johnson No. 2 Hydro plant contains one 18,750-kW turbine and
one 18,000-kW generator, with an installed capacity of 18,000 kW.
The total installed capacity of the project is 105,900 kW.

WATER QUALITY CERTIFICATION

The Nebraska Department of Environmental Conservation issued
water quality certification for Project No. 1417 on August 30,
1988, with three conditions. Pursuant to Section 401(d) of the
Clean Water Act, these conditions are included in the license.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

The U.S. Department of the Interior (Interior) and the
Nebraska Game and Parks Commission submitted fish and wildlife
recommendations pursuant to Section 10(j) of the FPA. As
explained in the Master Order, these parties subsequently filed
an Offer of Settlement that modified and effectively withdrew
those recommendations. This license is in accordance with our
approval of the Offer of Settlement.

ENDANGERED AND THREATENED SPECIES

As explained in the Master Order, the Offer of Settlement includes the reasonable and prudent alternative for protection of endangered and threatened species that the U.S. Fish and Wildlife Service specified in its Final Biological Opinion.

CULTURAL RESOURCES

The license requires Central to implement the provisions of the Programmatic Agreement, executed on July 17, 1998, by Central, the Commission, the Nebraska State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

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APPLICANT'S PLANS AND CAPABILITIES

In accordance with Sections 10(a)(2)(C) and 15(a) of the FPA, we have evaluated Central's record as a licensee with respect to the following: (1) consumption efficiency improvement program; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission services; (7) cost effectiveness of plans; and (8) actions affecting the public.

1. Consumption Efficiency Improvement Program

Section 10(a)(2)(C) of the FPA 2/ requires the Commission to consider for license applicants primarily engaged in the generation or sale of electric power, an applicant's programs to improve the efficiency of electricity consumption. Central will sell all of the project power to Nebraska Public Power District for distribution to end-use customers. Since Central will not be responsible for distributing the project power in the retail market, its conservation efforts are not a consideration here.

2. Compliance History and Ability to Comply with a New License

We reviewed Central's license application and its record of compliance with the existing license. We find that Central has complied in good faith with all articles, terms, and conditions of its current license. As a result of our review, we believe Central can satisfy the conditions of a new license.

3. Safe Management, Operation, and Maintenance

Central has a comprehensive inspection and maintenance program to maintain safety and monitor the operation of project works. This program is reviewed periodically and adjusted when necessary to meet operational and safety needs.

A permanent crew is stationed at Kingsley Dam to operate and visually check Kingsley Dam hydraulic structures and perform minor repair work when necessary. The diversion dam of the Platte River and all sections of the supply canal with parallel roads are visually checked daily. Potential safety and operational concerns, including any observed settlement, seepage, erosion or cracking, are immediately reported. The Jeffrey Hydro, Johnson Nos. 1 and 2 turbine/generator units are inspected semi-annually, and all necessary maintenance is done as required.

2/ 16 U.S.C. _ 803(a)(2)(C).

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In addition to Central's own inspection and maintenance program, the project structures are inspected annually by the Commission's regional staff and inspected every five years by an independent consultant under the Commission's Part 12 inspection program.

We conclude that Central will be able to manage, operate, and maintain the project in a safe manner.

4. Ability to Provide Efficient and Reliable Electric Service

We reviewed Central's plans and its ability to operate and maintain the project to provide efficient and reliable electric service.

Central has concluded that the Kingsley Project is developed to its optimal capacity. The project is reasonably developed and operated and fundamental changes or redevelopment are not economical. Central proposes no new construction of capacity or fundamental changes in operation, but will continue to consider the potential for improvements at the projects if appropriate or justified.

Central is proposing to make refinements to the operation of the project to protect and enhance the area's natural resources. Central continually upgrades, maintains and improves the project through various programs and refinements. These keep project operation reliable and efficient.

The project power is sold to Nebraska Public Power District to provide reliable, reasonably priced electricity to NPPD's customers.

We conclude that Central has been operating the project efficiently within the constraints of the existing license and will continue to provide efficient and reliable electric service in the future.

5. Need for Power

Central sells all of the project power to Nebraska Public Power District. A full discussion of NPPD's loads and resource requirements is included in Section 1.4.3 of the Final Environmental Impact Statement. The Kingsley Project is operated in close coordination with Project No. 1835 to provide for NPPD's growing needs for generation resources. NPPD's need for energy is growing at a rate of 1.47 percent annually, while its needs for summer and winter peak generating capacity are growing, respectively, at 1.26 percent and 1.54 percent annually.

Considering the extended periods of time during which NPPD's customers have benefitted from the hydropower output of the

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Kingsley Project together with NPPD's growth rate projections, we conclude that the project will contribute to the short-term and long-term power needs of the region.

6. Transmission Services

We find that licensing the project will have no significant effect on the existing or planned transmission system.

7. Cost Effectiveness

Central has no plans for making other significant project changes, except those periodically required to ensure the project's safety. Based on the license application and past practice, we conclude that Central's plans for continued operation of the project will be achieved in a cost-effective manner.

COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA require the Commission, in acting on applications for a license, to give equal consideration to the power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgement will be best adapted to a comprehensive plan for improving or developing a waterway or

waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The Final EIS analyzed the effects associated with the issuance of a new license for the Kingsley Dam Project with the measures included in the Settlement Agreement which we adopt, as discussed in the Master Order. We conclude that the various measures adopted herein will provide the best overall balance of the multitude of developmental and environmental resources in the river basin, which are affected by the project.

In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for the beneficial public purposes pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of the project power.

Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation,

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Publishing Paper Division, 3/ the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. 4/ The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

In making its decision, the Commission has considered the project's power benefits as it was previously licensed and with the mitigation and enhancement measures set forth in the settlement agreement and proposed for the new license.

Under the terms and conditions of the original license, the project would cost about \$12,903,000 annually and would produce about 374.4 gigawatt-hours of energy annually, having a total power value of about 31 mills/kWh or about \$11,600,000 annually. Therefore, under the conditions of the original license, the project would cost about \$1,303,000 more or about 11.2 percent more than the current value of the power.

For the new license, the parties to the Settlement Agreement propose numerous operational changes and environmental enhancement measures, which we adopt. These operational changes and enhancement measures will increase the project's annual cost

and reduce the annual value of the project's power by a combined total of about \$1,049,000 annually. Therefore, under the conditions we are including in this license, the project will cost about \$2,352,000 more or about 20 percent more than the current value of the power. 5/

3/ 72 FERC _ 61,027 (1995).

of
the
on
4/ Future inflation is assumed to be zero, the annual cost money and discount rate is assumed to be 8 percent, and present value and levelized cost calculations are based the first 30 years of license term.

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kilowatt
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to
5/ The value of the project's power output is based on a combined-cycle combustion turbine powerplant fueled with natural gas, which represents the most economical type new generating capacity that would be added in the region. The power values used in the analyses are \$109 per kilowatt per year for capacity and 16 mills per kilowatt-hour for energy. The project begins to be credited with capacity value in the year 2004, in keeping with the analysis provided by NPPD. Capacity impacts are limited to the Kingsley powerplant, where creditable capacity is

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The design of this project is consistent with engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license.

Based on our review of the agency and public comments and our evaluation of the environmental and economic effects of the proposed project and its alternatives, pursuant to Section 10(a)(1), we find that the Kingsley Dam Project, with the adopted protection and enhancement measures, will be best adapted to the comprehensive development of the Platte River for all beneficial public uses.

LICENSE TERM

Section 15 of the FPA specifies that any new license issued shall be for a term that we determine to be in the public interest, but not less than 30 years or more than 50 years. Our policy establishes 30-year terms for those projects that propose little or no redevelopment, new construction, new capacity or enhancement; 40-year terms for those projects that propose a moderate amount of redevelopment, new construction, new capacity or enhancement; and 50-year terms for those projects that propose extensive redevelopment, new construction, new capacity or enhancement. 6/

Central Nebraska is not proposing redevelopment of the project. This license does require numerous environmental enhancements and operating restrictions, which have a combined cost equivalent to about 9 percent of the total current value of the project power. We feel this is a moderate level of environmental enhancement which warrants extending the license an additional 10 years. Therefore we are issuing this license for a term of 40 years.

The Commission orders:

(A) This license is issued to The Central Nebraska Public Power and Irrigation District (licensee) for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Kingsley Dam Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

McConaughy directly related to the lowest end-of-month Lake content.

6/ See Montana Power Company, 56 F.P.C. 2008 (1976).

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(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary as shown on Exhibit G:

| Exhibit | FERC Drawing Number | Showing |
|---------|---------------------|--------------------------------|
| G: 1 | 1417-123 | Location Map and Sheet Listing |

| | | |
|-----------|----------------------|--|
| G: 2-41 | 1417-124 to 1417-163 | Kingsley Dam and Lake McConaughy |
| G: 42-56 | 1417-164 to 1417-178 | Supply Canal Plan Map - Jeffrey Section |
| G: 57-80 | 1417-179 to 1417-202 | Supply Canal Plan Map - Johnson Section |
| G: 81-103 | 1417-203 to 1417-225 | Supply Canal Section Plat's - Jeffrey Section |
| G: 104-14 | 1417-226 to 1417-264 | Supply Canal Section Plats - Johnson Section |

(2) Project works associated with three major elements: (a) a storage dam (Kingsley); (b) a diversion dam; and (c) a supply canal.

The Kingsley Dam consists of: (1) a 3-mile-long, 163-foot-high hydraulic earthfill dam and dike; (2) a 5,720 cfs capacity gated outlet tower; (3) a 54,000 cfs gated morning glory spillway; (4) a 475-foot-wide, 50,000 cfs capacity emergency spillway; (5) a 30,500-acre reservoir having a gross storage capacity of 1,790,000 acre-feet at normal maximum surface elevation of 3265.0 feet m.s.l.; (6) a 19-foot diameter, 685-foot-long reinforced concrete penstock; (7) a powerhouse (Kingsley Hydro) adjacent to the dam on the right abutment housing a vertical shaft turbine-generator unit with a rated nameplate capacity of 51.9 MW; (8) a 400-foot-long stilling basin; (9) all but the eastern arm of a 640-acre lake (Lake Ogallalla) immediately downstream of the dam formed as a result of materials excavation for dam construction; (10) a 4.1-mile-long, 115 kV overhead transmission line; and (11) appurtenant facilities.

The Diversion Dam consists of: (1) a 342-foot-long radial gate section; (2) a 371-foot-long reinforced concrete ogee section; (3) a 161-foot-long radial gate section; (4) a 3,738

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foot-long north dike; (5) a 10,700-foot-long south dike; and (6) appurtenant facilities.

The Supply Canal consists of two sections, the Jeffery Section and the Johnson Section. The Jeffery Section consists of: (1) a 195-foot-long headgate structure perpendicular to the Diversion Dam on the right abutment; (2) a 2,170 cfs capacity,

26.9-mile-long canal with (a) three reinforced concrete radial gate check structures, (b) nine compacted earth-fill dams and associated impoundments integral to the canal, and (c) four siphonic spillways at canyon areas subject to heavy runoff; (3) a 1,034-foot-long, 70-foot-high compacted earth-fill dam with an adjacent 226-foot-long, compacted earth-fill dike; (4) a 575-acre regulating reservoir having a gross storage capacity of 11,500 acre-feet at normal maximum surface elevation of 2758.0 feet m.s.l.; (5) a 700-foot-long concrete lined inlet canal; (6) two 12-foot diameter, 360-foot-long penstocks; (7) a powerhouse (Jeffery Hydro) containing two vertical shaft turbine-generator units with a combined nameplate capacity of 18 MW; (8) a double 13.5-foot by 30-foot radial gate structure; (9) a 8,691-foot-long return canal; and (10) appurtenant facilities.

The Johnson Section consists of: (1) a 37.6-mile-long, 2,170 cfs capacity canal with (a) five reinforced concrete radial gate structures, (b) twelve compacted earth-fill dams and associated impoundments integral to the canal; and (c) four siphonic spillways at canyon areas subject to heavy runoff; (2) a 4,985-foot-long, 47-foot-high compacted earth-fill dam with (a) an adjacent 3,350-foot-long west dike and (b) an adjacent 12,233-foot-long east dike; (3) a 2,500-acre regulating reservoir having a gross storage capacity of 52,200 acre-feet at normal maximum surface elevation of 2619.0 feet m.s.l.; (4) a 6,495-foot-long forebay canal; (5) two 12-foot diameter, 358-foot-long penstocks; (6) a powerhouse (Johnson No. 1 Hydro) containing two vertical shaft turbine-generator units with a combined nameplate capacity of 18 MW; (7) a 5.7-mile-long canal between Johnson No. 1 Hydro and Johnson No. 2 Hydro with four compacted earth-fill dams and associated impoundments integral to the canal; (8) a 1,054-foot-long, 14-foot-diameter steel penstock connecting to a 30-foot-diameter, 46-foot-high surge tank; (9) a powerhouse (Johnson No. 2 Hydro) containing a single vertical shaft turbine-generator unit with a combined nameplate capacity of 18 MW; (10) a 1,009-foot-long tailrace with a double 13.5 foot by 30-foot radial gate structure; (11) all electrical facilities necessary to transform and transmit all of the project power to the interconnected power system, including (a) for Kingsley Hydro, all transformation equipment and 4.1 miles of 115-kV overhead transmission line from Kingsley Powerhouse to an interconnection at the Nebraska Public Power District Substation; (b) for Jeffrey Hydro, all electrical equipment transforming the hydropower up to 66.4 kV and 115 kV for supplying the interconnected power system beginning at the 66.4-kV and 115-kV buses in the Jeffrey

Substation; (c) for Johnson No. 1 Hydro, all electrical equipment transforming the hydropower up to 66.4 kV and 115 kV for supplying the interconnected power system beginning at the 66.4-

kV and 115-kV buses in the Johnson No. 1 Substation; (d) for Johnson No. 2 Hydro, all electrical equipment transforming the hydropower up to 66.4 kV and 115 kV for supplying the interconnected power system beginning at the 66.4-kV and 115-kV buses in the Johnson No. 2 Substation; and (12) other appurtenant facilities.

The project works generally described above are more specifically described and shown in Exhibits A and F of the license application. These exhibits are described below:

Exhibit A: Pages 1-24 describing all of the project works and the existing mechanical, electrical and transmission equipment, filed June 28, 1984.

Exhibit F: Filed June 28, 1984, including drawings:

| Drawing: | FERC Drawing Number | Showing |
|-----------|---------------------|--|
| F: 1 | 1417-1 | Location Map and Sheet Listing |
| F: 2-10 | 1417-2 to 1417-10 | Kingsley Dam and Lake McConaughy |
| F: 11-21 | 1417-11 to 1417-21 | Kingsley Hydroelectric Plant |
| F: 22-39 | 1417-22 to 1417-39 | Diversion Dam |
| F: 40-73 | 1417-40 to 1417-73 | General Design Drawings Supply Canal - Jeffrey Section |
| F: 74-122 | 1417-74 to 1417-122 | General Design Drawings Supply Canal Johnson Section |

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

have been found to substantially conform to our regulations, are hereby approved and made part of the license.

(D) Exhibit X, An Environmental Account for Storage Reservoirs on the Platte River System in Nebraska, dated July 1, 1997, is approved and made part of the license effective October 7, 1999. Revisions to Exhibit X filed by the Licensee with the approval of the licensee for Project No. 1835 and the Governance Committee for the Platte River Recovery Implementation Program or for the Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitats Along the Central Platte River, Nebraska shall be deemed accepted, and the license shall be so amended 30 days after filing, unless the Commission within that 30 days orders the opening of a proceeding on the revisions with the following parties: the licensee for Project No. 1835, the Department of the Interior, the Nebraska Game and Parks Commission, the State of Colorado, the State of Nebraska, the State of Wyoming, the Nebraska Water Users, Inc., the National Audubon Society, the Platte River Whooping Crane Critical Habitat Maintenance Trust, the Nebraska Wildlife Federation, the Sierra Club, and the American Rivers.

(E) License articles which refer to the "Cooperative Agreement," the "Program" or the "Governance Committee" mean respectively the "Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitat Along the Central Platte River, Nebraska," signed July 1, 1997, by the Secretary of the Interior and the Governors of Colorado, Nebraska and Wyoming; any Platte River Recovery Implementation Program developed under that agreement; and the governing board directing the implementation of either. These documents are not made part of this license.

(F) This license is subject to the articles set forth in Form L-3 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States" and the following additional articles:

Article 201. The Licensee shall pay the United States the following annual charge, effective as of the first day of the month in which this license is issued, for the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 105,900 kilowatts.

Article 202. Within 45 days of the issuance of this license, the licensee shall file an original set and two complete duplicate sets of aperture cards of the approved exhibit

drawings. The set of originals must be reproduced on silver or gelatin 35 mm microfilm. The duplicate sets shall be copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards.

Prior to microfilming, the Commission Drawing Number shall be shown in the margin below the title block of the approved drawing. After mounting, the Commission Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of issuance of this license must be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards shall be filed with the Secretary of the Commission, ATTN: OHL/Division of Licensing and Compliance. The remaining duplicate set of aperture cards shall be filed with Commission's Chicago Regional Office.

Article 203. If the Licensee's project was directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this license.

SPECIFIC CONDITIONS

WATER

Contributing and storing water in an Environmental Account

Article 400. Effective October 1, 1999, and consistent with Exhibit X, at the end of each month from October through April, the Licensee shall contribute a volume of water equal to 10% of that month's Storable Natural Inflows into Lake McConaughy (as defined by section II.B of Exhibit X) to an Environmental Account, except in any year that Article 401 provides for contributing a different amount, with total contributions not to exceed 100,000 acre-feet in any October through April period. The Licensee shall store in Lake McConaughy the contribution described above, any Environmental Account contents carried over from a previous year, and any Environmental Account contributions made by Wyoming, Colorado, Nebraska or Conservation Activities as defined in Exhibit X and pursuant to Article 402, 403 and/or 415 below, up to a total quantity of water in the Environmental Account of 200,000 acre-feet, with the contents of the

Environmental Account in Lake McConaughy to be adjusted up or down to 100,000 acre-feet upon reservoir fill to regulatory capacity, irrespective of the quantity of water released earlier in the water year or of the 100,000 acre-feet limit on the Licensee's contribution. The quantity of water provided or stored shall be subject to the adjustments, losses, limitations and conditions of section II of Exhibit X.

Article 401. In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors and Secretary of the Interior), for the first three full October 1 to September 30 water years after such event, the Licensee shall use the method below to determine the contribution of water to the Environmental Account in lieu of a contribution equal to 10% of monthly Storable Natural Inflows from October through April called for in Article 400. All other provisions of Article 400 remain in effect during the three water year period, and in subsequent water years, the Environmental Account contribution by the Licensee which is defined in Article 400 will again apply.

The Licensee, together with the licensee of Project No. 1835, shall, on or about the first October 1 of the three water year period, make a prediction, using the best available data, of what Lake McConaughy storage will be at the end of the following May. If the prediction is that such storage will be 1.2 million acre-feet (maf) or greater, at the end of each month from October through April of that water year the Licensee shall contribute a quantity of water equal to 8% of the monthly Storable Natural Inflows into Lake McConaughy to the Environmental Account. If the actual end-of-May Lake McConaughy storage is 1.2 maf or greater in that year, the Licensee shall continue to contribute a quantity of water equal to 8% of the Storable Natural Inflows from October through April for the remainder of the three water year period, and no further predictions or adjustments will be made pursuant to this article until the three water year period has expired. If the actual end-of-May Lake McConaughy storage is in fact less than 1.2 maf, the Licensee shall (1) retroactively adjust the contribution to the Environmental Account for that water year to a quantity of water equal to 10% of the Storable Natural Inflows to Lake McConaughy from October through April of such water year; (2) adjust assigned storage losses to reflect the adjustment in Environmental Account contents; and (3) on or about the subsequent October 1, shall repeat the process described in this paragraph for the subsequent water year in the three water year period.

If the prediction is that end-of-May storage will be less than 1.2 maf, the Licensee shall contribute water to the Environmental Account in that water year as specified in Article 400. If the actual end-of-May storage is also less than 1.2 maf, the Licensee shall repeat the process described in the above paragraph for the subsequent water year in the three water year period. If the actual end-of-May Lake McConaughy storage is in fact 1.2 maf or greater, the Licensee shall: (1) retroactively adjust the contribution to the Environmental Account to a quantity of water equal to 8% of the Storable Natural Inflows to Lake McConaughy from October through April; (2) adjust assigned storage losses to reflect the adjustment in Environmental Account contents; and (3) continue to contribute quantities equal to 8% of the Storable Natural Inflows from October through April for the remainder of the three water year period. No further predictions or adjustments will be made pursuant to this article until the three water year period has expired. If the Environmental Account Manager has already used water in excess of the 8% contribution when retroactive adjustment occurs, the excess water used shall be deducted from the following water year's Environmental Account contribution.

Article 402. The Licensee, in coordination with the Governance Committee or its designees, shall develop methods to estimate the amount of any Net Controllable Conserved Water (as defined in the Cooperative Agreement) which is attributable to conservation projects counting toward fulfilling the Licensee's obligations under the National Wildlife Federation agreement in settlement of water rights disputes, filed with the Commission by Central on June 25, 1992, in Appendix 2 to the "Comments of the Central Nebraska Public Power and Irrigation District on the Draft Environmental Impact Statement for Project Nos. 1417 and 1835," Volume 1. Within twenty-four months of license issuance, the Licensee shall file a report identifying such conservation projects, describing its methodology and stating the results of its estimates of Net Controllable Conserved Water with the Commission. The Licensee shall allow a minimum of 30 days for the Governance Committee to comment and to make recommendations on the methodology and results before filing them with the Commission. The Licensee shall include with its filing documentation of such coordination including copies of the Governance Committee's comments and recommendations. Further, the Licensee shall identify in its filing how the comments or recommendations are accommodated. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes in methodology. Upon Commission approval, the Licensee shall use the estimates made according to the approved method or methods as described below. If, after a Program is implemented, the Licensee and Governance Committee agree to revisions in the

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methodology in use, the Licensee shall file the revised methodology and results with the Commission within 30 days and credit the Environmental Account with water consistent with the revised methodology. If the Commission initiates a proceeding to reopen the license based upon concerns of the adequacy of the Program s revised methodology, the following shall be parties: the Licensee, the licensee for Project No. 1835, the Department of the Interior, the Nebraska Game and Parks Commission, the State of Colorado, the State of Wyoming, the State of Nebraska, the Nebraska Water Users, Inc., the Platte River Critical Habitat Maintenance Trust, the National Audubon Society, the Sierra Club, American Rivers, and the Nebraska Wildlife Federation.

To the extent that some projects counting toward fulfilling the National Wildlife Federation settlement were partially funded by U.S. Bureau of Reclamation matching funds, on October 1 of each year after completing the estimate of the Net Controllable Conserved Water attributable to the U.S. Bureau of Reclamation funding, Central shall assign the quantity of Net Controllable Conserved Water attributable to such funding to the Environmental Account, and shall treat such water as a contribution from Conservation Activities as defined in and pursuant to section II.B.4 of Exhibit X. Pending development of such an estimate, effective the October 1, 1999, and each October 1 thereafter until the estimate is available, the Licensee shall assign to the Environmental Account 2,000 acre-feet of water, and shall treat such water as a contribution from Conservation Activities as defined in and pursuant to section II.B.4 of Exhibit X.

Upon implementation of a Program, the Licensee shall offer to the Program a quantity of water equal to the estimated Net Controllable Conserved Water achieved by conservation counted toward fulfilling the Licensee s obligations under the National Wildlife Federation agreement but not funded by the U.S. Bureau of Reclamation, and shall assign that quantity of water to the Environmental Account, provided that (1) the Program gives the Licensee credit toward any obligations it undertakes on behalf of Nebraska under the Program, or (2) the Program purchases the water at a price equal to the average cost in 1997 dollars accrued by the Licensee and/or its irrigation customers, as appropriate, in achieving that conservation. If the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed or

milestones are not met and the Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the Licensee will continue to assign to the Environmental Account a quantity of water equal to any estimated net controllable conserved water purchased by the Program or other Program participants.

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Article 403. Effective October 1, 1999, with the concurrence of the Nebraska Department of Water Resources as to the amount, the Licensee shall pass through or store water in the Environmental Account from upstream re-regulation projects or water conservation/supply projects approved by the Governance Committee as part of a Program, provided, however, that (1) if storage is sought in the Licensee's system, space is available in the Environmental Account for such water, and if such water is attributable to Colorado, storage procedures have been developed by the Licensee, Colorado, and the licensee for Project No. 1835 and approved by the Governance Committee; (2) such water is the result of management and operation of the upstream project, and is not included in the flow characteristics of the North Platte, South Platte or Platte Rivers which are available under conditions existing as of the signing of the Cooperative Agreement, as such characteristics are defined by the Governance Committee of the Cooperative Agreement; and (3) if such water is derived from a water conservation/supply project, it is net quantifiable conserved water and an operational agreement has been reached.

Consistent with Exhibit X, for so long as there is a Program, the Licensee shall store or pass through water pursuant to this article in quantities determined under accounting systems developed by the Governance Committee in cooperation with Nebraska Department of Water Resources and the State Engineer of Colorado or Wyoming as appropriate, provided, however, nothing in this provision shall preclude the Licensee from contesting that determination using dispute resolution proceedings developed as part of the Governance Committee's accounting system, and nothing in this provision shall be deemed as requiring the Licensee to violate state law or Nebraska Department of Water Resources regulations. The quantity of water stored shall be subject to the adjustments, losses, limitations and conditions of section II of Exhibit X. Storage and pass through of water shall be subject to section III.A.7 of Exhibit X permitting temporary suspension of operational rules if events occur which prevent operations in the manner prescribed.

If the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not

adequately completed or milestones are not met and the Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the Licensee shall continue to pass through or store water in the Environmental Account from Program-approved upstream sources subject to the definitions and limitations described above, provided that they continue to be operated in the manner approved through the Program and, in the case of water to be stored in Lake McConaughy, that the entity providing the water modifies or enters into contracts as

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necessary for the Licensee to store the water and to receive a reasonable fee.

Managing the Environmental Account

Article 404. By October 1, 1999, and consistent with Exhibit X and Article 408, the Licensee shall execute a contract with the U.S. Fish and Wildlife Service approved by the Commission as part of the Administrative Plan adopted pursuant to Article 408, and granting an Environmental Account Manager designated by the U.S. Fish and Wildlife Service the authority to request releases of water from the Environmental Account in Lake McConaughy. Within 30 days of execution the Licensee shall file a copy of that contract with the Commission. The Licensee shall notify the Commission in writing of the name, address, and phone number of the person designated as the Environmental Account Manager pursuant to Exhibit X within 30 days of his or her designation.

Effective October 1, 1999, consistent with Exhibit X, the Licensee shall release water from the Environmental Account upon a request of the Environmental Account Manager made according to the terms of his or her contract, including, to the extent reflected in Exhibit X, returning Environmental Account water to the river at the Jeffrey Return rather than transporting Environmental Account water through the canal system. Such releases shall be subject to the rules for Environmental Account operations, losses, limitations and conditions of section II of Exhibit X, including temporary reduction or suspension of releases if events occur which limit or prevent Environmental Account releases. The Licensee shall file with the Commission a copy of each annual operating plan for the Environmental Account developed by the Environmental Account Manager within 30 days of receipt of that plan from the Environmental Account Manager. If the Commission initiates a proceeding to reopen this license based upon concerns of the adequacy of the Environmental Account Manager's plans to achieve Endangered Species Act goals, the following shall be parties: the Licensee, the licensee for

Project No. 1835, the Department of the Interior, the Nebraska Game and Parks Commission, the State of Colorado, the State of Nebraska, the State of Wyoming, the Nebraska Water Users Inc., the Platte River Critical Habitat Maintenance Trust, the National Audubon Society, Audubon Society, the Sierra Club, American Rivers, and the Nebraska Wildlife Federation.

Operating Rules

Article 405. Effective October 1, 1999, the Licensee shall operate Project No. 1417 in accordance with, and otherwise comply with, the operating rules set forth in section III of Exhibit X, including passing through or releasing waters from Lake McConaughy as needed to supplement river flows and river gains to

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provide at least the lowest operational flows described in Exhibit X section III, without taking into account and in addition to any releases being made from the Environmental Account. Such actions shall be subject to the rules for project operations, limitations and conditions of section III of Exhibit X, including temporary suspension of operational rules if events occur which prevent operations in the manner prescribed. The Licensee shall not exercise its minimal system reregulating capacities to store operational diversions except as necessary to accommodate (1) system operational requirements; (2) normal reservoir refilling of Elwood Reservoir; (3) adjusting levels or draining and refilling for system maintenance; or (4) emergencies or contingencies.

The operational flow requirements of this article are defined by the compliance measurement provisions of section III.G of Exhibit X, as such parameters are determined in accordance with the Nebraska Department of Water Resources regulations and state law, and are subject to the other limitations and conditions of section III of Exhibit X.

Article 406. In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors and Secretary of the Interior), for the first three full October 1 to September 30 water years thereafter, the Licensee shall provide flows at Overton, Nebraska, during the months of June, July, August and September of 600 cubic-feet-per-second (cfs) if the previous end-of-month storage in Lake McConaughy is greater than or equal to 1.4 maf, and of 400 cfs if the previous end-of-month storage in Lake McConaughy is greater than or equal

to 1.2 maf and less than 1.4 maf; provided, however, that Environmental Account water shall not be used to provide such base flows. The Licensee shall, to the extent feasible, transport water intended for such base flows through the project works of Project No. 1417 to the J-2 Return.

The Licensee will plan for relatively steady day-to-day flows throughout each month, but as variability is expected, these base flow requirements are on a monthly average basis based on measurements at Overton, Nebraska, using current gauge readings with no retroactive application for recalibrated measurements, and subject to section III.A.7. of Exhibit X permitting temporary suspension of operational rules if events occur which prevent operations in the manner prescribed.

Article 407. If the Licensee diverts Environmental Account water or water from upstream sources specified in Article 403 at its Central Diversion Dam, the Licensee shall return to the

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Platte River any such water diverted less the transportation losses the Nebraska Department of Water Resources estimates would have occurred had the water been routed through the river instead of through the Licensee's canal system. Unless requested by the Environmental Account Manager to do so, the Licensee shall not exercise its limited system reregulating capabilities to store Environmental Account releases. Any actual losses associated with transportation through the Licensee's canal system in excess of the Nebraska Department of Water Resources estimate of losses associated with transportation through the river shall be replaced and returned to the river by the Licensee out of its own water supply.

If the Licensee, the licensee of Project No. 1835, and the Department of the Interior, in consultation with the Nebraska Department of Water Resources, reach agreement on a methodology for calculating transportation losses for Project No. 1417 canal system, and calculated transportation losses are less than river losses calculated by the Nebraska Department of Water Resources, the Licensee shall return to the river the Environmental Account water and/or water from upstream sources of water in the quantity diverted less the calculated canal loss. The Licensee shall file with the Commission any agreement on a canal transportation loss calculation methodology within 30 days of reaching such agreement.

The requirement to return flows shall be defined consistent with Nebraska state law and regulation. Unless the Environmental Account Manager has requested reregulation in the canal system, the mean daily discharge at the Jeffrey and/or the Johnson Hydro

No. 2 Return, as appropriate, shall at least equal the diverted Environmental Account or passed through flows (as calculated by the Nebraska Department of Water Resources), for whatever is the corresponding day (given the Nebraska Department of Water Resources's determination of travel time), less applicable losses for transportation to the point of discharge from the Licensee's system. The requirement to return flows pursuant to this article is subject to section III.A.7 of Exhibit X which provides for temporary suspension of operating rules if events occur which prevent operation in the manner prescribed.

Article 408. Within nine months of license issuance, the Licensee, in coordination with the licensee for Project No. 1835, the U.S. Fish and Wildlife Service and the Governance Committee, shall file an Administrative Plan for managing water commitments. The Plan shall include a communications protocol which includes: coordination of Licensee and Project No. 1835 operations with the Environmental Account Manager and upstream water projects through a Reservoir Coordination Committee and an Environmental Account Committee as required by Exhibit X; providing operations plans and predictions of reservoir fill and inflows as required by Exhibit X and Articles 410 and 411; communications of requests

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from the Environmental Account Manager for releases from the Environmental Account under Article 404, for Pulse Flow Shaping under Article 410, or for June flows under Article 411; a contract between the Licensee and the Environmental Account Manager which is consistent with these communications requirements; and provisions to add procedures for working with upstream Program reregulation projects and operating agreements with the owners of Program water conservation/water supply projects which are consistent with the communications protocol.

The Administrative Plan shall also include accounting and record-keeping procedures which shall confirm the Licensee has: assigned water to the Environmental Account pursuant to Articles 400, 401, 402, and 403 consistent with state law and Exhibit X; passed through water pursuant to Article 403 consistent with state law and Exhibit X; released water as requested by the Environmental Account Manager pursuant to Articles 404, 410 and 411 and consistent with the Administrative Plan's communications protocols; complied with the operating rules pursuant to Articles 405 and 406; returned environmental flows to the river consistent with Article 407; and complied with the Administrative Plan's communications protocol. The record-keeping procedures will identify which river gauges are monitored to verify compliance and records will include data from those gauges.

The Licensee shall allow a minimum of 30 days for the

coordinating parties to comment and to make recommendations on the Administrative Plan before filing it with the Commission. The Licensee shall include with its filing documentation of such coordination including copies of the comments and recommendations. Further, the Licensee shall identify how the comments and recommendations are accommodated. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to make changes in the Administrative Plan. Upon Commission approval, the Licensee shall implement the Plan. Revisions to the Plan filed by the Licensee with the concurrence of the licensee for Project No. 1835, the U.S. Fish and Wildlife Service, and the Governance Committee shall be deemed accepted 30 days after filing unless the Commission orders otherwise.

Water Rights

Article 409. The Licensee shall, within 30 days of the issuance date of this license, file an application with the Nebraska Department of Water Resources for storage use water rights to make releases for instream use for fish and wildlife purposes. The application shall be prepared in consultation with the licensee of Project No. 1835, the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission, the State of

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Colorado, the State of Wyoming, the Nebraska Water Users, the Platte River Critical Habitat Maintenance Trust, the National Audubon Society, the Sierra Club, the American Rivers, and the Nebraska Wildlife Federation.

The Licensee will thereafter use its best efforts to secure approval of the application within a reasonable period of time and, when granted, maintain such storage use water rights. If the State of Nebraska issues the water rights sought to implement Exhibit X prior to September 1, 1999, the Licensee shall meet with the licensee for Project No. 1835 and the Environmental Account Manager to determine, with the advice of the Environmental Account Committee and Reservoir Coordinating Committee established as set forth in Exhibit X, what portions of Exhibit X can be implemented given the timing within the October 1 to September 30 water year.

Upon filing of the storage use water right application, the Licensee shall consult with the parties listed above to determine what additional water rights, if any, may be needed to protect the instream use of base flows provided pursuant to Article 406 in the event the Cooperative Agreement fails, and shall prepare a

water rights application based on that consultation. Unless all of the consulted parties agree in writing that it is more appropriate to wait or that an application is not needed, the Licensee shall file the second water rights application with the Nebraska Department of Water Resources within 90 days of license issuance, and thereafter use its best efforts to secure approval of the application within a reasonable period of time and, when granted, maintain such water rights. If the Nebraska Department of Water Resources rejects such application, the Licensee shall meet with the consulted parties to determine what steps to take to secure any needed flow protection.

Pulse Flow Enhancement

Article 410. Effective October 1, 1998, and in every October 1 through September 30 water year thereafter except those when Article 411 is in effect, when reservoir fill and spill are predicted by the Licensee and the licensee for Project No. 1835, the Licensee shall not make or agree to any plans to release water from Lake McConaughy beyond the capacity of their canals and/or the canals of customers they serve to divert except in coordination with the Environmental Account Manager to provide for Pulse Flow Shaping as described below.

The Licensee, together with the licensee for Project No. 1835, shall review available data at least monthly from January to May to assess and, if appropriate, to revise their joint annual water plans as new information becomes available regarding existing and anticipated hydrologic conditions, including inflows into Lake McConaughy.

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When the Licensee and the licensee for Project No. 1835 predict that (i) reservoir fill (reaching or exceeding Commission regulatory capacity) will occur during a water year, or (ii) the reservoir will fill to 1.5 maf by March 31, the Licensee will notify the Environmental Account Manager, and will provide a representative to the Environmental Account and Reservoir Coordinating Committees to advise the Environmental Account Manager in preparing a Pulse Flow Shaping Plan to manage water that would otherwise be released in a controlled manner in excess of canal capacities. The Licensee shall file with the Commission a copy of any Pulse Flow Shaping Plan developed within 30 days of receipt of that plan from the Environmental Account Manager. The Flow Shaping Plan is based on prediction, and it is understood that an early prediction that the reservoir will fill may prove incorrect, in which case there is no spill or evacuation for the Environmental Account Manager to manage under the Pulse Flow Shaping Plan, or changing conditions may mean that the spill is larger or smaller than earlier predicted, and the Environmental

Account Manager may adjust releases from those originally planned to utilize the available water so as better to achieve the goal of enhancing pulse flows. If the Commission initiates a proceeding to reopen this license because of concerns with the adequacy of these plans to achieve Endangered Species Act goals, the following shall be parties: the Licensee, the licensee for Project No. 1835, The Department of the Interior, the Nebraska Game and Parks Commission, the State of Colorado, the State of Nebraska, the State of Wyoming, the Nebraska Water Users, the Platte River Critical Habitat Maintenance Trust, the National Audubon Society, the Sierra Club, American Rivers, and the Nebraska Wildlife Federation.

The Licensee shall release water available for pulse flow shaping upon the request of the Environmental Account Manager, subject to the limitations that the Environmental Account Manager may not plan or call for (1) releases that would cause or exacerbate flows in the North Platte River or Platte River in excess of flood stages as defined by the National Weather Service or its successor; (2) releases or operational changes which would violate dam safety requirements or Commission constraints on lake level (unless temporarily suspended); or (3) releases or operational changes which are likely to proximately cause significant damage to system facilities or substantial liability to the Licensee or the licensee for Project No. 1835. The Licensee will apply for suspension of the Commission's dam operating constraints on lake level if requested to do so by the Environmental Account Manager in the Pulse Flow Shaping Plan, with the understanding that the Program (if any) will reimburse the Districts for any analysis or improvements solely necessary to obtain the approvals sought or to repair damage caused by operating at lake levels above Commission limits as a result of a request by the Environmental Account Manager to manage pulse shape.

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The Licensee shall not make or agree to any change in the joint annual operating plan with the licensee for Project No. 1835 to make releases in excess of their canal capacities that are inconsistent with the Environmental Account Manager's Pulse Flow Shaping Plan, except as agreed to by the Environmental Account Manager or as necessary to avoid the conditions listed in the above paragraph.

Article 411. In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors

and Secretary of the Interior), for the first three full October 1 to September 30 water years thereafter, if end-of-May Lake McConaughy storage is 1.5 maf or greater, the Licensee shall assure that 50% of June inflows measured at the Lewellen gauge are released from Lake McConaughy if requested by the Environmental Account Manager as described below. In subsequent water years, the pulse flow shaping provisions of Article 410 will again apply.

On or about May 15 of each year in the three water year period, the Licensee and the licensee of Project No. 1835 shall, jointly predict, using the best available data, whether the end-of-month Lake McConaughy storage for that May will be 1.5 maf or greater. If the prediction is affirmative, the Licensee and the licensee of Project No. 1835 shall jointly provide the Environmental Account Manager with their estimate of June inflows to Lake McConaughy for that year, as measured at the Lewellen gauge, and their estimate of outflows from Lake McConaughy during that month, including releases to provide base flows during that June pursuant to Article 406. The difference between (1) 50% of the estimated June inflows to Lake McConaughy and (2) the outflows estimated above shall be made available to the Environmental Account Manager to schedule for release from Lake McConaughy during that June at his or her discretion; provided, however, that the difference estimated above shall be subject to a periodic true-up so that the total amount of water available to the Environmental Account Manager pursuant to this article shall be the difference between 50% of the actual June inflows and outflows. Water available to the Environmental Account Manager pursuant to this article which is not released during June shall not be carried over for use in any subsequent month.

The Licensee shall release water made available pursuant to this article upon request by the Environmental Account Manager, unless the water, if released, (i) would cause or exacerbate flows in excess of National Weather Service flood stages; (ii) would violate safety requirements; (iii) would likely proximately cause significant damage to the project works of Project No. 1417

or Project No. 1835; (iv) would likely proximately create substantial liability to the Licensee and/or the licensee of Project No. 1835; (v) would exceed the capacity of the Kingsley Powerhouse; (vi) unless otherwise agreed by the Licensee, would increase flow in the North Platte River by more than 400 cfs over 24 hours; and (vii) would exceed total daily ramping constraints at the Keystone Diversion based on the constraint in (vi) above plus the ability to divert additional water into Project No. 1835's Keystone Canal.

In the event that the Licensee or the licensee for Project No. 1835 incurs costs as a direct result of water released at the direction of the Environmental Account Manager pursuant to this Article to repair (1) any least tern/piping plover habitat site managed and maintained by the Licensee pursuant to Article 420 or the licensee for Project No. 1835 pursuant to its license or (2) any sand dam or related protective structure at any intake to any irrigation canal owned or served by the Licensee or the licensee for Project No. 1835, the Licensee may, at its discretion, reduce any obligation it may have in the following year to implement conservation activities under Article 415 by the amount of such costs; provided, however, that the Licensee shall first provide the U.S. Fish and Wildlife Service and the Platte River Whooping Crane Critical Habitat Maintenance Trust with a 30-day notice of and a detailed written explanation of the basis of the proposed reduction. Within 30 days of such notice either the U.S. Fish and Wildlife Service or the Platte River Whooping Crane Habitat Maintenance Trust may request binding arbitration of the Licensee's claim by the Director of the Nebraska Department of Water Resources, or his or her designee.

Flow Attenuation

Article 412. Within twenty-four months of license issuance, the Licensee, in coordination with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission and with their concurrence, shall file for Commission approval an operational plan for the Licensee to use its best efforts to attenuate increased flows in the Platte River which might occur because of rejection of irrigation water due to regional or local weather conditions during the June 1 to August 15 nesting season of least terns and piping plovers. In developing the plan, the Licensee shall consider, among other things, modifying irrigation season operations to create limited temporary capacity in Johnson Lake, and increasing deliveries to Rainwater Basin wetlands which hold valid state water rights or which acquire them subsequent to the date of the plan, and which can be served by the Licensee. The plan shall include a communication protocol for coordination with the Environmental Account Manager. The plan shall not include any required level or frequency of flow attenuation, and shall not create any operational constraints on Johnson Lake in years when flows are provided pursuant to Article 406.

The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission during the first June 1 to August 15 nesting season following Commission approval of the plan.

Article 413. The Licensee shall continue its contract with

the U.S. Fish and Wildlife Service in existence on the date this license is issued to deliver flows to the U.S. Fish and Wildlife Service s Funk Lagoon to the extent authorized by the U.S. Fish and the Wildlife Service s water rights. The Licensee shall further enter into other contracts with the U.S. Fish and Wildlife Service upon reasonable terms for delivery of flows to the Rainwater Basin when and if appropriate water rights are obtained, provided, however, that such contracts shall not require the Licensee to contribute to construction of any physical facilities needed for such deliveries. The Licensee shall cooperate in any efforts under the auspices of a Program to bring water to Rainwater Basin wetlands with properly acquired water rights.

Water Conservation and Use

Article 414. The Licensee shall: (1) participate in and cooperate with any water conservation/supply studies sponsored by the Program or through the Cooperative Agreement, and with Program efforts to develop any conservation action plan or plans; (2) provide information on conservation and Program conservation activities to its irrigation customers; (3) coordinate Program conservation activities involving project facilities, other Licensee facilities, or lands served by the Licensee; (4) during the term of the Cooperative Agreement, administer, but not separately fund, any demonstration programs involving project facilities, other Licensee facilities or lands served by the Licensee; and (5) cooperate with, but not separately fund, any conservation programs and projects deemed appropriate by the Governance Committee of the Cooperative Agreement or Program for implementation on project facilities or other Licensee facilities, or involving irrigators served by the Licensee.

Article 415. In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement s Governance Committee or by the Governors and Secretary of the Interior), the Licensee and the licensee of Project No. 1835 shall jointly assume responsibility for funding whatever component may remain of the Program's water conservation/supply study to identify and estimate the cost and feasibility of various water conservation or water supply opportunities, with a revised scope of work limiting the study to

Within twelve months of completing such study, or if the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed or milestones are not met and the Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), within twelve months of such event, the Licensee shall develop in consultation with the U.S. Fish and Wildlife Service and the licensee for Project No. 1835, and file for Commission approval a water conservation/supply plan for its project works and lands served by the Licensee and the licensee for Project No. 1835. The plan shall include any Program conservation activities already implemented involving the project works or lands served by the Licensee, and shall require the Licensee to implement conservation activities costing the equivalent of \$300,000/year (1997 dollars) for ten years for all conservation activities, less any Program expenditures which were made for conservation activities involving the project works or lands served by the Licensee or the licensee for Project No. 1835. Within fourteen months of implementing the conservation plan, and annually thereafter on or about that date, the Licensee shall file a report with FERC describing conservation activities and associated costs in the twelve-month period which expired 60 days earlier.

The Licensee shall, in coordination with the U.S. Fish and Wildlife Service and the Nebraska Department of Water Resources, develop methods to estimate the amount of any Net Controllable Conserved Water which is attributable to projects implemented under the conservation plan. The licensee shall file such methodology and results with the Commission for approval within 90 days of implementing a conservation project or program under the plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations on the methodology and results before filing them with the Commission. The Licensee shall include with its filings documentation of such coordination including copies of the agencies' comments and recommendations. Further, the Licensee shall identify in its filings how the comments or recommendations are accommodated. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons based on project-specific information.

The Commission reserves the right to make changes in the methodology. Upon Commission approval, the Licensee shall use the estimates made according to the approved method or methods to determine the timing and quantity of Net Controllable Conserved Water assigned to the Environmental Account.

increase in the volume of water delivered to the Licensee s irrigation customers. For purposes of this License Article, "no increase" is defined as:

(1) neither the Licensee nor its irrigation customers collectively increasing the water volume covered by irrigation storage use water right permits beyond the volume these irrigators have a right to as of the date of license issuance; provided, however, that, nothing herein shall be construed to limit the Licensee s ability (i) to transfer water rights among the areas served by the Licensee, (ii) where water rights for lands served by the Licensee are abandoned, adjudicated away, or otherwise terminated or reduced in quantity, to replace these former customers with customers with lands granted new water rights, up to the quantity of the water rights that were terminated; and

(2) the Licensee not in any year diverting more than 357,743 acre-feet of storage water for irrigation directly from the Supply Canal and into the E-65, E-67 and Phelps Canals, except as may be required by state law; provided, however, that notwithstanding the provisions hereof, the Licensee shall be entitled to provide irrigation service for other canals if such canals have water appropriations as of the date of issuance of this license which are assigned or otherwise transferred to the Licensee. In most years it is anticipated that diversions will be lower; actual diversions will vary, within similar ranges as they have historically, as they are affected by hydrologic conditions for the most part.

Nothing herein shall be construed to limit the ability of the Licensee to take advantage of any future Program component intended to permit new depletions while assuring that their effects are mitigated.

The Licensee shall not expand its irrigation service by taking advantage of water savings achieved by any conservation activities carried out under the Program except as agreed to within the Program. After the Program evaluates any Program conservation/water supply activities involving Project facilities or irrigated lands served by the E-65, E-67 or Phelps canals during the Program planning process and following implementation and determines that the water rights volume and delivery limitations described above have been affected, the definition of "no increase" shall be revised accordingly. In the event the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed or milestones are not met and The Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), in lieu of a Program evaluation of the effects of

conservation/water supply activities, the Licensee shall consult with the U.S. Fish and Wildlife Service, the Nebraska Department of Water Resources and the licensee for Project No. 1835 to evaluate the impacts on the definitions in paragraphs (1) and (2) above of any continuing conservation/water supply activities which were funded by the Program, or any conservation activities undertaken pursuant to Article 415.

LAND

Between the Johnson Hydro No. 2 Return and Chapman, Nebraska

Article 417. The Licensee shall acquire from willing owners an interest in a parcel or parcels of land in and along the Platte River within the area designated as critical habitat for whooping cranes and below the Johnson Hydro No. 2 Return, with primary emphasis on acquiring control of land between the Johnson Hydro No. 2 Return and Kearney, Nebraska, to be protected and managed as habitat for least terns, piping plovers, whooping cranes, sandhill cranes, and other migratory waterfowl. The parcel of land to be acquired shall be identified through discussions among the Licensee, the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission. The U.S. Fish and Wildlife Service shall concur in the selection of land before acquisition. The goals in identifying potential land for acquisition shall be to acquire land in a block of approximately 1200 acres or more and to complete the acquisition within 18 months of license issuance, but the Licensee shall not be required to expend more than \$1.8 million (1997 dollars) acquiring the parcel and, because acquisition shall be on a willing seller/willing lessor basis, timing may be adjusted after coordination with the U.S. Fish and Wildlife Service. The Licensee shall notify the Commission of any change in timing agreed to with the U.S. Fish and Wildlife Service from the 18-month goal and shall include in that notification a copy of the U.S. Fish and Wildlife Service written concurrence. The Licensee shall notify the Commission of the location and acreage of land acquired within 30 days of acquisition.

The interest acquired in the parcel may be in the form of purchase, lease or an appropriate conservation easement, such that channel areas may be enhanced and that to the extent current uses are maintained, haying and grazing is according to prescribed schedules, and additional drainage of wet meadows is prohibited, all in accordance with an approved management plan. The Licensee shall develop, in coordination with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission and working through the Governance Committee of the Cooperative Agreement or its designees, such a plan to enhance and maintain the parcel for wildlife use as habitat. Within 12 months of the land acquisition, such plan shall be finalized with the concurrence of the U.S. Fish and Wildlife Service and the

Nebraska Game and Parks Commission, and filed for Commission approval.

The Licensee shall be required to spend no more than \$400/acre (1997 dollars) for initial development or rehabilitation of the land. Maintenance under the plan shall be performed only when and if required, and the Licensee shall not be required to spend more than \$10/acre/year in cash or in-kind contribution for maintenance measured on a three-year rolling average basis, or more than \$15/acre in any one year to implement the plan. The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

It is anticipated that under a Program, if the U.S. Fish and Wildlife Service so requests, the Licensee will be reimbursed for the costs of acquiring and developing these lands, and that the Program will take over the future costs of maintaining the lands. At such time, the Licensee's obligation under this article to maintain this parcel as wildlife habitat shall be extinguished. To the extent such reimbursement takes place, the Licensee will apply the funds received to the acquisition and development of habitat in the North Platte, Nebraska to Johnson Hydro No. 2 Reach pursuant to Article 418. In the event reimbursement does not take place for any reason, including that the U.S. Fish and Wildlife Service does not request the Program to so reimburse the Licensee, the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors and Secretary of the Interior), or that the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed or milestones are not met and the Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the Licensee shall continue to maintain this habitat in accordance with the approved plan as described above.

Habitat between North Platte, Nebraska and the Johnson Hydro No. 2 Return

Article 418. The Licensee shall acquire from willing owners interests in land in and along the Platte River in the reach between North Platte and the Johnson Hydro No. 2 Return, to be protected and managed as habitat for least terns, piping plovers, sandhill cranes, and other migratory waterfowl. The parcels of

land to be acquired shall be identified through discussions among the Licensee, the U.S. Fish and Wildlife Service and the Nebraska

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Game and Parks Commission. The U.S. Fish and Wildlife Service shall concur in the selection of land before acquisition.

The goals in identifying potential land for acquisition shall be (1) to acquire up to 4,200 acres for four habitat areas, including the parcel acquired pursuant to Article 417 unless the cost of that acquisition was reimbursed through the Program; (2) to acquire a total of at least 2,200 acres within five years of license issuance, a total of at least 3,000 acres within nine years of license issuance, and up to 4,200 acres within 13 years of license issuance, or one year after the end of the first increment of the Program, whichever is later, if increments are included in the Program; (3) to acquire approximately 2,800 acres of the total in blocks of approximately 1,200 acres or more in the reach between Gothenburg and Lexington, Nebraska provided, however, in recognition of the limited opportunities available, other areas or alternative parcels may be in smaller blocks or at other locations in the Platte or North Platte rivers areas. The Licensee shall not be required to expend more than \$6.3 million (1997 dollars) in acquiring the parcels. Any amounts expended to acquire land between Johnson Hydro No. 2 Return and Chapman which are reimbursed shall not be counted toward that total.

Because acquisition shall be on a willing seller/willing lessor basis, timing of acquisitions may be adjusted after coordination with the U.S. Fish and Wildlife Service. Timing of acquisitions will also be adjusted as appropriate and as agreed upon between the Licensee and the U.S. Fish and Wildlife Service, based on the timing of any reimbursement for the land acquired between Johnson Hydro No. 2 and Chapman, Nebraska pursuant to Article 417, so that the Licensee may have a reasonable period of time to acquire replacement lands between North Platte, Nebraska and Johnson Hydro No. 2 with the funds reimbursed. The Licensee shall notify the Commission of any change in timing agreed to with the U.S. Fish and Wildlife Service and of the new schedule. The Licensee shall also notify the Commission of the location and acreage of land acquired within 30 days of acquisition.

Interests acquired in these parcels may be in the form of purchase, lease or an appropriate conservation easement, such that channel areas may be enhanced and that to the extent current uses are maintained, haying and grazing is according to prescribed schedules, and additional drainage of wet meadows is prohibited, all in accordance with an approved management plan. The Licensee shall, in coordination with the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission and

working through the Governance Committee of the Cooperative Agreement or its designees, as appropriate, develop such a plan to enhance and maintain each parcel acquired for wildlife use as habitat. Within 12 months of the date of acquisition of a parcel, such plan shall be completed with the concurrence of the

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U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission, and filed for Commission approval.

The Licensee shall be required to spend no more than \$400/acre (1997 dollars) for Initial development or rehabilitation of the land. Maintenance under the plan shall be performed only when and if required, and the Licensee shall not be required to spend more than \$10/acre/year in cash or in-kind contribution for maintenance measured on a three-year rolling average basis, or more than \$15/acre in any one year to implement the plan. The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

In the event that a the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement or not adequately completed and the situation cannot be remedied through the Cooperative Agreement s Governance Committee or by the Governors and Secretary of the Interior), or the Program fails, (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed/milestones are not met and the Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the Licensee, if requested by the U.S. Fish and Wildlife Service after consultation with the Nebraska Game and Parks Commission, shall (1) revise these acquisition goals to focus on the reach from below the Johnson Hydro No. 2 Return to Chapman; (2) sell some or all of their interests in land acquired pursuant to this article and use the proceeds to fund acquisition, development and maintenance of lands between Johnson Hydro No. 2 and Chapman in accordance with enhancement and maintenance plans developed and approved as described above, provided, however, that the Licensee must first offer the U.S. Fish and Wildlife Service (and if it declines, then the Nebraska Game and Parks Commission and then any foundation established under the Program to own land) a reasonable opportunity to match any other offer received. The Licensee shall report any revision in the acquisition goals, any sales of interests in land acquired pursuant to this article, and goals developed with the U.S. Fish and Wildlife Service for use

of the proceeds of such sales to the Commission within 30 days.

Habitat between Keystone and North Platte, Nebraska

Article 419. The Licensee shall acquire from willing owners interests in at least 500 acres of wet meadow habitat land along the North Platte River in the reach between Keystone and North Platte, Nebraska to be protected and managed as habitat for sandhill cranes and other migratory waterfowl.

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These habitat lands will be existing wet meadows on privately owned land. In identifying potential land for acquisition, the Licensee shall focus on the river reach between Sutherland and North Platte, Nebraska. Habitat areas will include at least 100 contiguous acres and, to the extent possible, will be adjacent to lands managed by the Nebraska Game and Parks Commission or environmental groups. The Licensee shall acquire these interests in habitat lands within eighteen months of license issuance. Because acquisition shall be on a willing seller/willing lessor basis, timing of acquisitions may be adjusted after coordination with the U.S. Fish and Wildlife Service. The Licensee shall notify the Commission of any change in timing agreed to with the U.S. Fish and Wildlife Service and of the new schedule. The Licensee shall also notify the Commission of the location and acreage of land acquired within 30 days of acquisition.

Interests in the parcels or parcels may be in the form of purchase, lease or an appropriate conservation easement, such that channel areas may be enhanced and that to the extent current uses are maintained, haying and grazing is according to prescribed schedules, and additional drainage of wet meadows is prohibited, all in accordance with an approved management plan. The Licensee shall develop, in coordination with the U.S. Fish and Wildlife Service and the Nebraska Games and Parks Commission, a plan to enhance and maintain each parcel acquired as habitat. Within 12 months of the date of acquisition of a parcel, such plan shall be finalized with the concurrence of the U.S. Fish and Wildlife Service and the Nebraska Games and Parks Commission, and filed for Commission approval.

The Licensee shall be required to spend no more than \$50,000 (\$100/acre (1997 dollars)) for initial development or rehabilitation of these lands. Maintenance under the plan shall be performed only when and if required, and the Licensee shall not be required to spend more than \$10/acre/year in cash or in-kind contribution for maintenance measured on a three-year rolling average basis, or more than \$15/acre in any one year to implement the plan. The Commission reserves the right to make

reasonable changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

Tern and Plover Habitat Areas

Article 420. The Licensee shall provide maintenance consistent with Program adaptive management of habitat areas created or protected by the Licensee for use by terns and plovers prior to license issuance, or of equivalent habitat areas. As of the date this license is issued, these habitat areas consist of: one sandpit located near Gothenburg, Nebraska; one sandpit located near Cozad, Nebraska; and habitat on Project lands near

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the Central Diversion Dam at the confluence of the North and South Platte Rivers.

The Licensee shall, in coordination with the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission and working through the Governance Committee of the Cooperative Agreement or its designees, develop a plan to maintain each parcel for as use as wildlife habitat. The plan shall contain documentation that the Licensee has acquired interests in these lands through purchase, lease or an appropriate conservation easement sufficient to carry out the plan and appropriate protection measures for threatened and endangered species using these areas, including public education measures. Such plan shall also include provisions for substituting equivalent habitat areas for those initially managed, if appropriate. Maintenance under the plan shall be performed only when and if required, and the Licensee shall be required to spend no more than \$26,667 (1997 dollars) in any one year to implement the plan. Within twelve months of license issuance, such plan shall be completed with the concurrence of the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission, and filed for Commission approval.

The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval. Until the plan is approved by the Commission, the Licensee will manage and maintain these habitat areas consistent with its practices in effect on the issuance date of this license.

Land and Shoreline Management Plan

Article 421. Within twenty-four months of license issuance, the Licensee shall file for Commission approval a plan to manage the lands and shorelines of the project. The Land and Shoreline

Management Plan shall identify project lands and shorelines that are and will be reserved for present and future wildlife, public recreation, residential, agricultural and other uses. Any proposed change in the use of project lands from uses in existence at the time of license issuance shall be identified. To the extent project lands may be included in the lands managed pursuant to Articles 417 through 420, their use and management shall not be governed by the Land and Shoreline Management Plan. Nothing in this article shall be construed to limit the Licensee from leasing lands and shorelines subject to management under the plan, provided, however, that the lessee's use of the land is consistent with the plan.

The Land and Shoreline Management Plan shall include a plan addressing use of project lands and shorelines designated for public recreational use under the Land and Shoreline Management Plan, and the recreational use of project waters. The

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recreational component of the Land and Shoreline Management Plan shall include designation of project lands and/or waters for campgrounds, recreational vehicles, fishing, hunting, boating and canoeing. The plan shall be consistent with wildlife protection measures required by this license.

The plan shall also include, at a minimum, an evaluation of the need for, and measures as appropriate to address: (a) protection of least tern and piping plover nesting sites at Lake McConaughy similar to programs existing at the time of license issuance, which include limited fencing to exclude livestock from nesting areas and public education efforts; (b) suitable protection of bald eagle perch and roost sites on project lands that were in existence at license issuance; (c) measures for controlling aquatic vegetation and sedimentation in project reservoirs, as appropriate.

The Licensee shall prepare the Land and Shoreline Management Plan after consultation with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission. The Licensee shall allow a minimum of 30 days for the consulted agencies to comment and make recommendations on the plans before filing them with the Commission. The Licensee shall include with its filings documentation of such consultation including copies of the comments and recommendations on the proposed plans during consultation. Further, the Licensee shall identify in its filings how the comments or recommendations are accommodated by the proposed plans. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information. The Commission reserves the right to require reasonable changes in the plans. Upon

Commission approval, the Licensee shall implement the plans as approved by the Commission.

The Licensee shall file updated reports on the Lands and Shoreline Plan every five years after plan approval. Any change in the use of project lands and shorelines must be highlighted and summarized at the beginning of the update report.

The Licensee shall periodically reevaluate the tern and plover nest protection and bald eagle perch and roost site protection components of its plan in consultation with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission in the same manner as the initial consultation. A report on such reevaluation and consultation, and any resultant revisions shall be filed with the Commission every three years after initial plan approval. Any comments received from the consulted entities shall be documented and included with the filing.

Article 422. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant

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permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the Licensee may grant permission without prior Commission approval are:

- (1) landscape plantings;
- (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;
- (3) embankments, bulkhead, retaining walls, or similar structures for erosion control to protect the existing shoreline; and
- (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the Licensee shall:

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- (1) inspect the site of the proposed construction;
- (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and
- (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for:

- (1) replacement, expansion, realignment, or maintenance of

bridges or roads where all necessary state and federal approvals have been obtained;

- (2) storm drains and water mains;
- (3) sewers that do not discharge into project waters;
- (4) minor access roads;
- (5) telephone, gas, and electric utility distribution lines;
- (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;
- (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and
- (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the

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lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The Licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

- (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;
- (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;
- (3) other pipelines that cross project lands or waters but do not discharge into project waters;
- (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and

state approvals have been obtained;

- (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;
- (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and
- (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the Licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

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(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following

covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

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Habitat and Species Monitoring

Article 423. Within six months of license issuance, the Licensee and the licensee for Project No. 1835, in coordination with the U.S. Fish and Wildlife Service and, the Nebraska Game and Parks Commission and working through the Governance Committee of the Cooperative Agreement, shall jointly develop and file with the Commission for approval a plan to fund or carry out monitoring activities, including monitoring of endangered species and their habitat, on lands acquired pursuant to Articles 417 through 420, until such time as there is a Program. The plan shall focus on collecting habitat baseline information on least terns and piping plovers, fish, vegetation and channel configuration changes, and whooping crane use of the habitat areas, and shall include provisions for reporting monitoring results to the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission, the Governance Committee of the Cooperative

Agreement, and the Commission. The Licensee and the licensee for Project No. 1835 shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan. The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

Within six months of adoption of any Program, the Licensee and the licensee for Project No. 1835, after consultation with the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission and the Governance Committee of that Program, shall jointly develop an amended plan to address integrating the Licensee's monitoring efforts into the Program, and shall file such amended plan with the Commission. The Licensee shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan, and such plan shall include provisions for reporting monitoring results to the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission, the Governance Committee of the Program and the Commission. If the Commission initiates a proceeding with respect to the adequacy of the plan to achieve the Endangered Species Act requirements, the following shall be parties: the Licensee, the licensee for Project No. 1835, The Department of the Interior, the Nebraska Game and Parks Commission, the State of Colorado, the State of Nebraska, the State of Wyoming, the Nebraska Water Users, Inc., the Platte River Critical Habitat Maintenance Trust, the National Audubon Society, the Sierra Club, American Rivers, and the Nebraska Wildlife Federation. The Licensee and the licensee for Project No. 1835 may implement the plan after consultation with the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission and the Governance Committee of the Program. Any such amendments shall be filed with the Commission within 30 days.

In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors and Secretary of the Interior), or the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed/milestones are not met and The Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), within six months of such event, the Licensee in coordination with the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission, and

the licensee for Project No. 1835 shall jointly develop and file with the Commission for approval an amendment to the plan to fund or carry out monitoring activities to provide continuing information on the status of endangered and other species and their habitat on lands acquired pursuant to Articles 417 through 419. The plan shall include provisions for reporting monitoring results to the U.S. Fish and Wildlife Service, the Nebraska Game and Parks Commission and the Commission. The Licensee and the licensee for Project No. 1835 shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan. The Commission reserves the right to make reasonable changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

MISCELLANEOUS

Public Education Programs

Article 424. The Licensee shall make reasonable efforts to participate in public education programs such as eagle viewing. Beginning on or about May 1, 1999, and annually each year thereafter, the Licensee shall file with the Commission a report describing its activities under this article during the previous April 1 through March 31.

Cultural Resources

Article 425. The Licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, And The Nebraska State Historic Preservation Officer For Managing Historic Properties That May Be Affected By A License Issuing To The Central Nebraska Public Power and Irrigation District For The Kingsley Dam Hydroelectric Power Project, Project No. 1417," executed on July 17, , 1998, including but not limited to the Cultural Resources Management Plan for the project. In the event that the Programmatic Agreement is terminated, the Licensee shall continue

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to implement the provisions of its approved Cultural Resources Management Plan. The Commission reserves the authority to require changes to the Cultural Resources Management Plan at any time during the term of the license. If the Programmatic Agreement is terminated, the Licensee shall obtain approvals from or make notifications of the Commission or State Historic Preservation Officer where the Cultural Resources Management Plan calls upon the licensee to do so.

Reservation of Authority

Article 426. The Commission reserves the right, after prior notice and opportunity for hearing, to amend this license as necessary for the Commission to comply with its obligations under the Endangered Species Act including following reinitiation of Endangered Species Act section 7 consultation at the request of the U.S. Fish and Wildlife Service under the terms of the Cooperative Agreement or Program, with prior notice to include notification of the Licensee, the licensee for Project No. 1835, the Department of the Interior, the State of Colorado, the State of Nebraska, the State of Wyoming, the Nebraska Game and Parks Commission, the Nebraska Water Users, Inc., the Platte River Whooping Crane Critical Habitat Maintenance Trust, the National Audubon Society, the Sierra Club, American Rivers and the Nebraska Wildlife Federation. Nothing in this Article shall be construed to limit or restrict any party from seeking different or modified license conditions through Article 15.

Report on the Cooperative Agreement or Program

Article 427. For so long as the Cooperative Agreement or a Program is in effect, on March 1 of each year the Licensee shall file a report on the status of activities under the Cooperative Agreement or Program during the prior calendar year consisting of the minutes of the Governance Committee meetings and copies of Cooperative Agreement or Program documents adopted during that year.

The Licensee shall file the Programmatic Environmental Impact Statement evaluating the Program proposed under the Cooperative Agreement and alternatives to that proposed Program within 30 days of issuance. If a Program is adopted, the Licensee shall file a copy of the Program and the agreement among the Department of the Interior and the States of Colorado, Nebraska and Wyoming adopting such Program within 30 days of its signing.

In the event the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative

Agreements s Governance Committee or by the Governors of the States of Colorado, Nebraska and Wyoming and the Secretary of the Interior), or the Program fails (terminates or expires, a signatory withdraws from the Program, or Program activities are not adequately completed or milestones are not met and The Department of the Interior makes a final determination that the

Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the License shall within 30 days report such failure to the Commission.

Future Filings

Article 428. The Licensee shall serve copies of any Commission filing required by this order on any entity specified to be consulted on matters related to that filing. In cases where the Licensee is required to consult with the Governance Committee, copies of any filings shall be filed on the three state signatories to the Cooperative Agreement. The Licensee shall serve all applications to amend this license on the Department of the Interior's attorney of record and on the Regional and Grand Island offices of the U.S. Fish and Wildlife Service. The Licensee shall serve notice of the substance of any applications to amend Exhibit X or Articles 400, 401, 402, 403, 404, 405, 406, 407, 408, 410, 411, 412, 415, 416, or 423 upon the Platte River Whooping Crane Critical Habitat Maintenance Trust. Proof of service as required by this article must accompany the filing/amendment application.

(G) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(H) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the FPA. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this license.

By the Commission.

(S E A L)

Linwood A. Watson, Jr.,
Acting Secretary.

for the Kingsley Dam Project
Issued August 30, 1988, by the
Nebraska Department of Environmental Conservation

We have reviewed FERC Project No. 1417 for State Water Quality Certification in accordance with Section 401 of the federal Clean Water Act (33 U.S.C. _ 1251 et seq.). FERC Project No. 1417 is comprised of Central Nebraska Public Power and Irrigation District's (Central) hydroelectric facilities and appurtenant structures on the North Platte River in Garden and Keith Counties, and on and off streams of the Platte River in Lincoln, Dawson, and Gosper Counties. It is our determination that operation of this project will comply with State Water Quality Standards and the applicable provisions of the federal Clean Water Act subject to meeting the following conditions:

1. At all times, except for the force majeure conditions set forth in paragraph 2 below, the site-specific criteria for Lake Ogallalla defined in NDEC's Title 117 shall be maintained (i.e., Title 117, Chapter 4. 003.0111).
2. Any failure to comply with Title 117, Chapter 4. 003.0111 shall not be deemed noncompliance if such failure is a result of earthquake, flood, or other acts of God, fire, work stoppage, riot, or failure of materials or equipment to be delivered as promised, labor disturbances, equipment failure, strikes, civil disturbances, boycotts, acts of military authority, acts of local authorities, arrests, or other occurrences resulting in impossibility of compliance and such occurrence or noncompliance was beyond the party's control and was not due to a lack of good faith or diligence on the part of the party. Central shall advise NDEC in the event such an occurrence has prevented or may prevent Central from such compliance and shall specify the additional time it needs to bring the Kingsley Hydro back into compliance.
3. During the period of July 1 through October 15, Central shall conduct the following water quality monitoring when Kingsley Hydro is in operation and submit the results to NDEC on a monthly basis:
 - a) Monitor dissolved oxygen in Lake Ogallalla at the midpoint of the buoy line (1987 location at the outer edge of the stilling basin) at a 1 meter depth every 10 minutes.

- b) Monitor dissolved oxygen at the Kingsley Hydro powerhouse every hour, and

c) Monitor water temperature at the Kingsley Hydro powerhouse every hour.

However, we reserve the right to apply our appropriate regulatory authority to various elements of Central's system. Specifically, we will continue to regulate the discharge from Canaday Steam Plant under Section 402 of the Clean Water Act (NPDES permit number NE0000680). It is noted that a Corps of Engineers Section 404 permit for maintenance dredging activities at the North Platte Diversion Dam (NE 258 OXT 2 001311) was reissued on April 26, 1988, and will expire on April 30, 1989. We will apply the appropriate authority under Section 401 for a Section 404 permit or Section 402 for these elements of Central's system as needed to carry out our responsibilities. The same holds true for any future activities which are applicable under Sections 402 and 404 of the federal Clean Water Act or the Nebraska Environmental Protection Act.

We therefore, by this letter, provide Water Quality Certification for FERC Project 1417.

UNITED STATES OF AMERICA 84 FERC 61,078
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: James J. Hoecker, Chairman;
Vicky A. Bailey, William L. Massey,
Linda Breathitt, and Curt H, bert, Jr.

Nebraska Public Power District) Project No. 1835-013

ORDER ISSUING NEW LICENSE

(Issued July 29, 1998)

On June 21, 1984, the Nebraska Public Power District (NPPD) filed an application under Part I of the Federal Power Act (FPA) for a new license to continue to operate and maintain the existing 26.1-megawatt (MW) North Platte/Keystone Diversion Dam Project, located on the North Platte and South Platte Rivers in Keith and Lincoln Counties in south-central Nebraska. 1/ The original license for this project expired on July 29, 1987. Since that time, NPPD has operated the project under an annual license.

Concurrently with this order, we are issuing an Order Approving Offer of Settlement and Issuance of New Licenses (Master Order), which discusses issues common to this project and the Central Nebraska Public Power and Irrigation District's Project No. 1417. That order is incorporated by reference herein. This order pertains to the North Platte/Keystone Diversion Dam Project.

PROJECT DESCRIPTION

Project No. 1835, the North Platte/Keystone Diversion Dam Project, consists of diversion dams, impoundments, canals, and a powerplant. The 1,296-foot-long Keystone Diversion Dam, on the North Platte River, impounds a portion of Lake Ogallalla and

- 1/ The project is required to be licensed pursuant to Section 23(b)(1) of the FPA, 16 U.S.C. 817(1), because it is located on the North Platte and South Platte Rivers, which are Commerce Clause streams tributary to the navigable Missouri River; it underwent construction or major modification after 1935; and it affects the interests of interstate commerce because of its interconnection with the interstate electrical grid. The Commission originally licensed the project based on its potential to affect the navigable capacity of the Missouri River. See Platte Valley Public Power and Irrigation District, 3 F.P.C. 947, 948 (1943).

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diverts water into the 32-mile-long Sutherland Canal. The 1,244-foot-long Korty Diversion Dam, on the South Platte River, diverts water into the 7.4-mile-long South Platte Supply Canal. The combined diversions enter Sutherland Reservoir, having a surface area of 3,050 acres and a storage capacity of 65,974 acre-feet. A 19-mile-long supply canal connects Sutherland Reservoir to Lake Maloney, which has a surface area of 1,670 acres and a storage capacity of 21,600 acre-feet. Lake Maloney supplies water through a 2-mile-long power canal to a 26.1-MW hydroelectric powerplant (North Platte Hydro), which contains two 13,500-kW turbines and two 13,050-kW generators with an installed capacity of 26,100 kW.

WATER QUALITY CERTIFICATION

The Nebraska Department of Environmental Conservation issued water quality certification for Project No. 1835 on July 10, 1984, without including any conditions in the certification.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

The U.S. Department of the Interior (Interior) and the Nebraska Game and Parks Commission submitted fish and wildlife recommendations pursuant to Section 10(j) of the FPA. As explained in the Master Order, these parties subsequently filed an Offer of Settlement that modified and effectively withdrew those recommendations. This license is in accordance with our approval of the Offer of Settlement.

ENDANGERED AND THREATENED SPECIES

As explained in the Master Order, the Offer of Settlement includes the reasonable and prudent alternative for protection of endangered and threatened species that the U.S. Fish and Wildlife Service specified in its Final Biological Opinion.

CULTURAL RESOURCES

The license requires NPPD to implement the provisions of the Programmatic Agreement, executed on July 17, 1998, by NPPD, the Commission, the Nebraska State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

APPLICANT'S PLANS AND CAPABILITIES

In accordance with Sections 10(a)(2)(C) and 15(a) of the FPA, we have evaluated NPPD's record as a licensee with respect to the following: (1) consumption efficiency improvement program; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission services;

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(7) cost effectiveness of plans; and (8) actions affecting the public.

1. Consumption Efficiency Improvement Program

Section 10(a)(2)(C) of the FPA 2/ requires the Commission to consider the applicant's electricity consumption efficiency improvement program, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Based on our review, we conclude that NPPD has in place an adequate electric consumption efficiency improvement program.

2. Compliance History and Ability to Comply with a New License

We reviewed NPPD's license application and its record of compliance with the existing license. We find that NPPD's has complied in good faith with all articles, terms, and conditions of its current license. As a result of our review, we believe NPPD can satisfy the conditions of a new license.

3. Safe Management, Operation, and Maintenance

NPPD has a comprehensive inspection and maintenance program to maintain safety and monitor the operation of project works. This program is reviewed periodically and adjusted when necessary to meet operational and safety needs.

NPPD personnel visually check the Keystone and Korty dams, the Supply Canal, the South Platte Supply Canal, and all related structures, including the inlet and outlet of Paxton Siphon, at least twice daily. Monthly, they test the auxiliary generators used to operate the gates at both dams. Twice daily, they visually check the Outlet Canal, Power Canal, Forebay and other related structures, including the penstock and surge tank. They visually inspect the tailrace canal daily. They check the Sutherland Reservoir dam and dike, Maloney Dam, and the forebay dikes on a routine basis. They immediately report any potential safety concerns, including any observed bank erosion or settlement, excess seepage, cracking or spalling of concrete structures, and potential leakage from the penstock and surge tank. They inspect the North Platte Hydro butterfly valves, turbine-generator units, bearings, coils, wicket gates and other related equipment semi-annually.

In addition to NPPD's own inspection and maintenance program, the project structures are inspected annually by the

2/ 16 U.S.C. 803(a)(2)(C).

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Commission's regional staff and inspected every five years by an independent consultant under the Commission's Part 12 inspection program.

We conclude that NPPD will be able to manage, operate, and maintain the project in a safe manner.

4. Efficient and Reliable Electric Service

NPPD has concluded that the North Platte/Keystone Project is developed to its optimal capacity. The project is reasonably developed and operated and fundamental changes or redevelopment are not economical. NPPD proposes no new construction of capacity or fundamental changes in operation, but will continue to consider the potential for improvements at the project if appropriate or justified.

NPPD is proposing to make refinements to the operation of the project to protect and enhance the area's natural resources. NPPD continually upgrades, maintains and improves the project through various programs and refinements. These keep project operation reliable and efficient.

We conclude that NPPD has been operating the project efficiently within the constraints of the existing license and will continue to provide efficient and reliable electric service in the future.

5. Need for Power

A full discussion of NPPD's loads and resource requirements is included in Section 1.4.3 of the Final Environmental Impact Statement. In summary, the North Platte/Keystone Project is operated in close coordination with Central's Project No. 1417 to provide for NPPD's growing needs for generation resources. NPPD's need for energy is growing at a rate of 1.47 percent annually while its needs for summer and winter peak generating capacity are growing, respectively, at 1.26 percent and 1.54 percent annually.

Considering the extended periods of time during which NPPD's customers have benefitted from the hydropower output of the North Platte/Keystone Project, together with NPPD's growth rate projections, we conclude that the project will contribute to the short-term and long-term power needs of the region.

6. Transmission Services

We find that licensing the project will have no significant effect on the existing or planned transmission system.

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7. Cost Effectiveness

NPPD has no plans for making other significant project changes, except those periodically required to ensure the project's safety. Based on the license application and past practice, we conclude that NPPD's plans for continued operation of the project will be achieved in a cost-effective manner.

COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA require the Commission, in acting on applications for a license, to give equal consideration to the power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgement will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The Final EIS analyzed the effects associated with the issuance of a new license for the North Platte/Keystone Diversion Dam Project with the measures included in the Settlement Agreement which we adopt, as discussed in the Master Order. We conclude that the various measures adopted herein will provide the best overall balance of the multitude of developmental and environmental resources in the river basin, which are affected by the project.

In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for the beneficial public purposes pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of the project power.

Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation, Publishing Paper Division, 3/ the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date 4/. The basic purpose of the Commission's economic

3/ 72 FERC 61,027 (1995).

4/ Future inflation is assumed to be zero, the annual cost of money and discount rate is assumed to be 8 percent, and the

present value and levelized cost calculations are based on

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analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

In making its decision, the Commission has considered the project's power benefits as it was previously licensed and with the mitigation and enhancement measures set forth in the settlement agreement and proposed for the new license.

Under the terms and conditions of the original license, the project would cost about \$4,220,000 annually and would produce about 124.9 gigawatt-hours of energy annually, having a total power value of about 27.4 mills/kWh or about \$3,420,000 annually. Therefore, under the conditions of the original license, the project would cost about \$800,000 more or about 23 percent more than the current value of the power.

For the new license, the parties to the Settlement Agreement propose numerous operational changes and environmental enhancement measures, which we adopt. These operational changes and enhancement measures will increase the project's annual cost and reduce the annual value of the project's power by a combined total of about \$309,000 annually. Therefore, under the conditions we are including in this license, the project will cost about \$1,109,000 more or about 32 percent more than the current value of the power. 5/

The design of this project is consistent with engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license.

Based on our review of the agency and public comments and our evaluation of the environmental and economic effects of the proposed project and its alternatives, pursuant to Section 10(a)(1), we find that the North Platte/Keystone Diversion Dam Project, with the adopted protection and

the first 30 years of license term.

- 5/ The value of the project's power output is based on a new combined-cycle combustion turbine powerplant fueled with natural gas, which represents the most economical type of new generating capacity that would be added in the region. The power values used in the analyses are \$109 per kilowatt per year for capacity and 16 mills per kilowatt-hour for energy. The project begins to be credited with capacity

value in the year 2004, in keeping with the load/resource analysis provided by NPPD.

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enhancement measures, will be best adapted to the comprehensive development of the Platte River for all beneficial public uses.

LICENSE TERM

Section 15 of the FPA specifies that any new license issued shall be for a term that we determine to be in the public interest, but not less than 30 years or more than 50 years. Our policy establishes 30-year terms for those projects that propose little or no redevelopment, new construction, new capacity or enhancement; 40-year terms for those projects that propose a moderate amount of redevelopment, new construction, new capacity or enhancement; and 50-year terms for those projects that propose extensive redevelopment, new construction, new capacity or enhancement. 6/

NPPD is not proposing redevelopment of the project. This license does require numerous environmental enhancements and operating restrictions, which have a combined cost equivalent to about 9 percent of the total current value of the project power. We feel this is a moderate level of environmental enhancement which warrants extending the license an additional 10 years. Therefore we are issuing this license for a term of 40 years.

The Commission orders:

(A) This license is issued to Nebraska Public Power District (licensee) for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the North Platte/Keystone Diversion Dam Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary as shown on exhibit G:

| Exhibit | FERC Drawing Number | Showing |
|---------|---------------------|---|
| G: 1 | 1835-53 | North Platte Diversion Dam General Plan |
| G: 2-9 | 1835-54 to 1835-61 | Supply Canal Stations |

6/ See Montana Power Company, 56 F.P.C. 2008 (1976).

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| G: 10-13 1835-62 to 1835-65 | South Platte Diversion Dam and Supply Canal |
| G: 14 1835-66 | Confluence Plan |
| G: 15-19 1835-67 to 1835-71 | Supply Canal Stations |
| G: 20 1835-72 | Sutherland Reservoir |
| G: 21-29 1835-73 to 1835-81 | Outlet Canal Stations |
| G: 30 1835-82 | Regulating Reservoir |
| G: 31 1835-83 | Power Canal, Forebay, and Penstock |
| G: 32 1835-84 | Powerhouse Site & Tailrace Canal |

(2) Project works consisting of: (1) a 1,296-foot-long, 24.4-foot-high diversion dam on the North Platte River consisting of (a) a reinforced concrete south sluiceway with 5 radial gates, (b) a compacted earth embankment, (c) a reinforced concrete center sluiceway with 3 radial gates, and (d) a compacted sand-gravel fuse plug section; (2) a 9,750-foot-long dike extending from the north abutment of the dam; (3) approximately 220 acres (the east arm) of Lake Ogallalla; (4) a 32.3-mile-long, 2,000 cfs capacity supply canal with (a) a headgate structure having 8 roller gates, (b) 7 check structures, (c) a flume section, and (d) an inverted siphon; (5) a 1,244-foot-long, 19-foot-high diversion dam (Korty Dam) on the South Platte River consisting of (a) a reinforced concrete south sluiceway on the south abutment with 3 radial gates, (b) a reinforced concrete ogee spillway section with 20 radial gates, (c) a compacted earth embankment, (d) sand-gravel fill fuse plug section; (6) a 2.5-mile-long compacted earth dike beginning at the diversion dam and paralleling the north bank of the South Platte River; (7) a 4,150-foot-long compacted earth dike extending from the diversion dam southwesterly across the South Platte River floodplain; (8) a 60-acre impoundment formed by the Korty Dam having a gross storage capacity of 165-acre-feet at a normal maximum water surface elevation of 3109.0 feet m.s.l.; (9) a 7.4-mile long, 1,200 cfs capacity canal (South Platte Supply Canal) with (a) a reinforced concrete headgate structure having four roller gates, (b) a flume section, and (c) a drop structure; (10) a compacted earth embankment forming Sutherland Reservoir with (a) a 3.56-mile-long, 66-foot-high dam section, (b) a 2.9-mile-long, 34-foot-high dike section, (c) a 296-foot-long reinforced

concrete inlet structure, and (d) an outlet structure consisting of an approach channel, outlet tower, outlet conduit and stilling basin; (11) a 3,050-acre reservoir (Sutherland Reservoir) having a gross storage capacity of 65,974 acre-feet at a normal maximum

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water surface elevation of 3055.0 feet m.s.l.; (12) a 19.2-mile-long outlet canal with 3 check structures; (13) a 8,700-foot-long, 44-foot-high compacted earth dam forming Lake Maloney; (14) a 1,670-acre regulating reservoir (Lake Maloney) having a gross storage capacity of 21,600 acre-feet at a normal maximum water surface elevation of 3006.0 feet m.s.l.; (15) a 8,900-foot-long power canal with a reinforced concrete headworks structure having 2 radial gates; (16) a 92-acre forebay area having a gross storage capacity of 870 acre-feet at a normal maximum water surface elevation of 3006.0 feet m.s.l.; (17) a reinforced concrete power intake structure; (18) a 2,357-foot-long, 13.33-foot-diameter steel penstock with an 87-foot-high steel surge tank; (19) a powerhouse (North Platte Hydro) containing two vertical shaft turbine-generator units with a combined nameplate capacity of 26.1 MW; (20) a 2-mile-long tailrace canal; (21) all electrical facilities necessary to transform and transmit all of the project power to the interconnected power system, which begins at the 64.4-kV and 115-kV buses in the substation east of the North Platte Hydro powerhouse; and (22) other appurtenant facilities.

The project works generally described above are more specifically described and shown in Exhibits A and F of the license application. These exhibits are described below:

Exhibit A: Pages 1-17 describing all of the project works and the Gerald Gentleman Steam plant which is within the project boundary but not part of the project, and the existing mechanical, electrical and transmission equipment, filed June 28, 1984.

Exhibit F: Filed June 28, 1984, including drawings:

| Drawing: | FERC Drawing Number | Showing |
|----------|---------------------|-------------------------------|
| F: 1-9 | 1835-1 to 1835-9 | North Platte Diversion Dam |
| F: 10-23 | 1835-10 to 1835-23 | Supply Canal Sections |
| F: 24-29 | 1835-24 to 1835-29 | South Platte Supply Canal |
| F: 30-35 | 1835-30 to 1835-35 | Sutherland Reservoir Plans |

| | | |
|----------|--------------------|--|
| F: 36-38 | 1835-36 to 1835-38 | Outlet Canal Plans |
| F: 39-40 | 1835-39 to 1835-40 | Regulating Reservoir (Lake Maloney) |

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|----------|--------------------|--------------------------------------|
| F: 41-43 | 1835-41 to 1835-43 | Power Canal Plans |
| F: 44-47 | 1835-44 to 1835-47 | Power Conduit and Penstocks Plans |
| F: 48 | 1835-48 | Surge Tank Plan |
| F: 43-51 | 1835-49 to 1835-51 | Power House Plans |
| F: 52 | 1835-52 | Tailrace Canal Sections |

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, F, and G of the license application, which have been found to substantially conform to our regulations, are hereby approved and made part of the license.

(D) This license is subject to the articles set forth in Form L-3 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States" and the following additional articles:

Article 201. The Licensee shall pay the United States the following annual charge, effective as of the first day of the month in which this license is issued, for the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 26,100 kilowatts.

Article 202. Within 45 days of the issuance of this license, the licensee shall file an original set and two complete duplicate sets of aperture cards of the approved exhibit drawings. The set of originals must be reproduced on silver or gelatin 35 mm microfilm. The duplicate sets shall be copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards.

Prior to microfilming, the Commission Drawing Number shall

be shown in the margin below the title block of the approved drawing. After mounting, the Commission Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1,

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G-1, etc.), Drawing Title, and date of issuance of this license must be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards shall be filed with the Secretary of the Commission, ATTN: OHL/Division of Licensing and Compliance. The remaining duplicate set of aperture cards shall be filed with Commission's Chicago Regional Office.

Article 203. If the Licensee's project was directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this license.

Article 301. Within 30 days after land acquisitions pursuant to Articles 417, 418, 419, 420, and 421, the licensee shall file, for approval, a revised Exhibit G showing the changes in project lands.

Article 400. The Licensee shall cooperate with the licensee of Project No. 1417 and coordinate its operations as necessary for the purpose of assisting the licensee of Project No. 1417 in providing, maintaining and operating an Environmental Account ("EA") in Lake McConaughy in accordance with the terms of the document entitled "An Environmental Account For Storage Reservoirs on the Platte River System in Nebraska" (the "EA Document") which is part of the Proposed Platte River Recovery Implementation Program ("Program") attached to the Cooperative Agreement for Platte River Research dated July 1, 1997 ("Cooperative Agreement") and the Licensee shall comply with the operating rules set forth in Section III of the EA Document. The Licensee shall also, consistent with Paragraph C of the January 15, 1998 Agreement on All Issues Reached in FERC Trial Staff Settlement Meetings ("Settlement Agreement"), cooperate with the licensee of Project No. 1417 in delivering applicable pulse flows and base flows and may, to the extent feasible, transport water intended for such base flows through the project works of Project No. 1835.

Notwithstanding the above, in the event that the Licensee,

as a direct result of the June pulse flow shaping operations by the EA Manager under the default provisions of the January 15, 1998 Settlement Agreement incurs costs to repair (1) any least tern/piping plover habitat site managed and maintained by the Licensee pursuant to the terms of this license or (2) any sand

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dam or related protective structure at any intake to any irrigation canal owned or served by the Licensee, the Licensee may, at its discretion, reduce any obligation it may have in the following year to fund water conservation/supply activities hereunder by the amount of such costs; provided, however, that the Licensee shall first provide the U.S. Fish and Wildlife Service ("FWS") and the Platte River Whooping Crane Critical Habitat Maintenance Trust ("Trust") with a 30-day notice of and a detailed written explanation of the basis for the proposed reduction. Within 30 days of such notice either the FWS or the Trust may request binding arbitration of the Licensee's claim by the Director of the Nebraska Department of Water Resources or his or her designee.

Article 401. The Licensee may divert EA water and water from upstream reregulation projects or water conservation/supply projects approved by the Governance Committee as part of a Program at its Keystone and/or Korty diversion dams but shall return such water to the Platte River less the transportation losses which the Nebraska Department of Water Resources ("NDWR") estimates would have occurred had the EA water or water from upstream sources been routed through the river instead of through the Licensee's canal system. Unless directed by the EA Manager to do so, the Licensee shall not exercise its limited system reregulating capabilities to store EA releases. Any actual losses associated with transportation through the Licensee's canal system in excess of the Nebraska Department of Water Resource's estimate of losses associated with transportation through the river shall be replaced and returned to the river by the Licensee out of its own water supply. If the Licensee, the licensee of Project No. 1417, and the U. S. Fish and Wildlife Service ("FWS") in consultation with the NDWR reach agreement on a methodology for calculating transportation losses for Project Nos. 1417 and/or 1835, and if such calculated losses are less than the river losses calculated by the NDWR, the Licensee shall return to the river the amount of the water so diverted less the calculated canal losses.

Article 402. In the event that a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or in the event the Cooperative Agreement fails, the Licensee together with the licensee of Project No. 1417 shall jointly assume responsibility for developing appropriate revisions to the then current Program water conservation study in order to identify and estimate the cost and feasibility of various water conservation supply

opportunities with a revised scope of work limiting the study to Project facilities and lands served by the Licensee and the licensee of Project No. 1417.

Within twelve months of completing such study, or if the Program fails (terminates or expires, a signatory withdraws from

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the Program or Program activities are not adequately completed or milestones are not met and The Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), within twelve months of such event, the Licensee shall develop in consultation with the U.S. Fish and Wildlife Service and the licensee for Project No. 1417, and file for Commission approval a water conservation/supply plan for their project works and for the lands served by the Licensee and the licensee for Project No. 1417. The plan shall include any Program conservation activities already implemented involving those project works and lands and shall require the Licensee together with the licensee of Project No. 1417 to implement conservation activities costing the equivalent of \$300,000/year (1997 dollars) for ten years, less any Program expenditures which were made for conservation activities involving the project works or lands served by the Licensee or the licensee for Project No. 1417.

Article 403. Licensee, consistent with Section IV.C.2 of the Agreement in Principle dated June 30, 1997, shall take appropriate measures to ensure that the volume of water it delivers to its irrigation customers does not, in any water year, exceed the volume of water to which its customers are entitled as of the date of license issuance pursuant to their applicable irrigation storage use permits provided, however, that nothing herein shall be construed to limit the Licensee's ability to: (i) transfer water rights among the areas served by the Licensee, where water rights for lands served by the Licensee are abandoned, adjudicated away, or otherwise terminated or reduced in quantity, or (ii) to replace former customers with customers with lands granted new water right up to the quantity of the water rights that were terminated; and

Further, the Licensee shall not in any water year, consistent with Section IV.C.2 of the Agreement in Principle dated June 30, 1997, divert more than 45,070 acre-feet of storage water for irrigation at the Gothenburg, Dawson County and Kearney headgates, except as may be required by state law; provided, however, that notwithstanding the provisions hereof, the Licensee shall be entitled to provide irrigation service for other canals if such canals have water appropriations as of the date of issuance of this license which are assigned or otherwise transferred to the Licensee.

The Licensee shall not expand its irrigation service by

taking advantage of water savings achieved by any conservation activities carried out under the Program except as may be agreed upon within the Program. Nothing herein shall limit the ability of the Licensee from taking advantage of any future Program component intended to permit new depletions while assuring that their effects are mitigated.

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Article 404. Within 12 months of the issuance date of this license, the Licensee shall, consistent with Section IV.A.5 of the Agreement in Principle dated June 30, 1997, file for Commission approval a plan to manage and maintain for the term of the license existing habitat areas protected by the Licensee for least terns and piping plovers, or equivalent habitat. The existing habitat areas include the following sites managed by the Licensee: three islands between Lexington and Kearney, Nebraska; two sandpits located near Elm Creek; and one sandpit located near Lexington, Nebraska.

The Licensee shall prepare the plan after consultation with and concurrence by the U. S. Fish and Wildlife Service and the Nebraska Game and Parks Commission. The plan shall provide for management and maintenance of these areas and shall be consistent with reasonable adaptive management practices and the Program. The plan shall contain documentation that the Licensee has acquired interests in these lands through purchase, lease, or an appropriate conservation easement sufficient to carry out the plan and appropriate protection measures for threatened and endangered species using these areas. The plan shall provide for the expenditure of up to but not more than \$53,333/year (1997 dollars) for maintenance of least tern and piping plover habitat areas.

The Commission reserves the right to make reasonable changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval. Until the plan is approved by the Commission, the Licensee will continue to manage and maintain these habitat sites consistent with current practices.

Article 405. Within 180 days of the issuance date of this license, the Licensee, together with the licensee of Project No. 1417, shall, after consultation with the Fish and Wildlife Service ("FWS") and the Nebraska Game and Parks Commission ("NGPC"), file for Commission approval a plan, consistent with Section IV.D. of the Agreement in Principle dated June 30, 1997, to monitor, until such time as there is a Program, wildlife, including endangered species and their habitat, on the lands acquired and developed pursuant to this license and on the least tern and piping plover habitat sites managed and maintained by the Licensee. The plan shall focus on collecting habitat baseline information on least terns and piping plovers, fish, vegetation and channel configuration changes, and whooping crane

use of the habitat areas, and shall include provisions for reporting monitoring results to FWS, NGPC, the Governance Committee of the Cooperative Agreement and the Commission. The Licensee, together with the licensee of Project No. 1417, shall spend up to \$100,000/year (1997 dollars) in cash or in-kind services to implement this monitoring plan. The Commission reserves the right to make reasonable changes in the plan. The

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Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

Within 180 days of the adoption of any Program, the Licensee and the licensee of Project No. 1417, after consultation with FWS, NGPC, and the Governance Committee, shall jointly develop an amended plan to address integrating the Licensee's monitoring efforts into the Program, and shall file such amended plan with the Commission. The licensees shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan, and such plan shall include provisions for reporting monitoring results to FWS, NGPC, the Governance Committee, and the Commission.

In the event that the Cooperative Agreement fails (a signatory withdraws from the Cooperative Agreement, the Cooperative Agreement terminates and a Program is not adopted, or activities under the Cooperative Agreement are not adequately completed and the situation cannot be remedied through the Cooperative Agreement's Governance Committee or by the Governors and Secretary of the Interior), or the Program fails (terminates or expires, a signatory withdraws from the Program or Program activities are not adequately completed/milestones are not met and The Department of the Interior makes a final determination that the Program is not serving as the reasonable and prudent alternative under the Endangered Species Act), the Licensee shall, within six months of such event, and in coordination with FWS and NGPC and the licensee for Project No. 1417, develop and file for Commission approval an amendment to the plan to fund or carry out monitoring activities to provide continuing information on the status of endangered and other species and their habitat on lands acquired pursuant to the licenses for Project Nos. 1417 and 1835. The plan shall include provisions for reporting monitoring results to FWS, NGPC, and the Commission. The Licensee together with the licensee of Project No. 1417 shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan. The Commission reserves the right to make reasonable changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of Commission approval.

Article 406. The Licensee shall implement the "Programmatic Agreement Among the Commission, the Advisory Council on Historic Preservation, and the Nebraska State Historic Preservation

Officer for Managing Historic Properties that May be Affected by Project No. 1835," executed on July 17, 1998, including the Cultural Resources Management Plan ("CRMP") for the project. The Commission reserves the authority to require changes to the CRMP at any time during the term of the license. In the event that the Programmatic Agreement is terminated, the Licensee shall continue to implement the provisions of its approved CRMP and the Licensee shall obtain approvals from or make notifications of the

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Commission and the SHPO where the CRMP calls upon the licensee to do so.

Article 407. Within one year of the issuance date of this license, the Licensee shall, consistent with Section IV.A.4 of the Agreement in Principle dated June 30, 1997, provide for wildlife habitat under the Program approximately 2,650 contiguous acres of land located in an area on both sides of the Platte River between the J-2 Return and Elm Creek and including in excess of two miles of river channel.

The Licensee shall develop, in consultation with the U.S. Fish and Wildlife Service ("FWS"), the Nebraska Game and Parks Commission ("NGPC"), the Governance Committee, and the licensee of Project No. 1417, a plan to develop and enhance the 2,650 + acre parcel of land for wildlife use. This plan shall be completed with the concurrence of FWS and NGPC and filed for Commission approval within 12 months of the issuance date of this license. The plan shall also provide for the development of at least one least tern/piping plover habitat area. The Licensee shall begin implementing the plan within six months of obtaining final approvals.

The Licensee shall spend up to \$1.3 million (1997 dollars) (less any amounts expended by the Program for development and enhancement measures) to implement the development and enhancement measures of the approved plan; provided, however, that nothing herein is intended to preclude the Licensee from seeking reimbursement of such expended funds from the Governance Committee.

The Licensee shall not be responsible for maintaining these lands as long as the Governance Committee under the Cooperative Agreement or under the Program assumes responsibility for such maintenance. Should the Program fail to provide and implement a maintenance program, the Licensee shall assume responsibility for maintaining these lands and shall spend up to but not more than \$15/acre (1997 dollars) in cash or in-kind contributions for maintenance on a three year rolling average basis, provided that the Licensee shall not in any year be required to spend more than \$20/acre (1997 dollars) for maintenance. Within 90 days of the time that it becomes clear that the Program is unwilling or unable to provide maintenance of these lands, the Licensee shall

prepare, in consultation with the FWS and NGPC, a maintenance plan and file it for Commission approval. The Commission reserves the right to make reasonable changes to the plan and to require periodic revisions, as necessary by the Licensee.

Article 408. The Licensee shall deliver to the North Platte state fish hatchery operated by the Nebraska Game and Parks Commission ("NGPC") flows up to 16 cubic-feet-per-second,

Project No. 1835-013

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consistent with the NGPC's water right in accordance with Section IV.B.2 of the Agreement in Principle dated June 30 1997.

Article 409. Within one year of the issuance date of this license, the Licensee shall file for Commission approval a plan to provide the necessary flows to manage the fishery resources in the rock weirs below the Keystone diversion dam consistent with study results and after consultation with the Nebraska Game and Parks Commission ("NGPC"). The Licensee shall allow a minimum of 30 days for NGPC to comment and to make recommendations on the plan before filing it with the Commission. The Licensee shall include in its filing documentation of such consultation including copies of the comments and recommendations on the proposed plan received during the consultation. Further, the Licensee shall identify in its filing how the comments or recommendations are accommodated by the proposed plan. If the Licensee does not adopt a recommendation of the NGPC, the filing shall include the Licensee's reasons, based on project-specific information. The Commission reserves the right to require reasonable changes in the plan. Upon Commission approval, the Licensee shall implement the plan as approved by the Commission.

Article 410. Within 12 months of the issuance date of this license, the Licensee shall develop in consultation with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission and file for Commission approval a plan to protect eagle perch and roost sites that are in existence on the issuance date of this license and located on project lands or on lands adjacent to its project works. The Commission reserves the right to make reasonable changes to the plan. The Licensee shall implement the plan as approved by the Commission.

Article 411. The Licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. In cases where the Licensee is required to consult with the Governance Committee, copies of any filings shall also be served on the Governance Committee members of the three state signatories to the Cooperative Agreement. The Licensee shall serve all applications to amend this license on the Department of the Interior's attorney of record and on the Regional and Grand Island offices of the U.S. Fish and Wildlife Service and shall serve copies of any filing which could have the effect of

changing the Licensee's obligations under the Agreement in Principle dated June 30, 1997, or the Settlement Agreement dated January 15, 1998, on the parties to those agreements. Proof of service as required by this article must accompany the filing/amendment application.

Article 412. The Commission reserves the right, after notice and opportunity for hearing, to amend this license, as necessary for the Commission to comply with its obligations under

Project No. 1835-013

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the Endangered Species Act ("ESA") following reinitiation of ESA section 7 consultation by the U.S. Fish and Wildlife Service under the terms of the Cooperative Agreement or Program.

Article 413. Within one year of the issuance date of this license, Licensee shall submit for Commission approval a plan for its continued participation in public education programs in accordance with Section IV.E.2. of the Agreement in Principle dated June 30, 1997. The Licensee shall consult with the U.S. Fish and Wildlife Service and the Nebraska Game and Parks Commission in the preparation of this plan.

Article 414. Within two years of the issuance date of this license the Licensee shall file for Commission approval a Recreational Management Plan to develop and maintain project lands. The plan shall be consistent with the wildlife protection measures required by this license. In developing this Plan the Licensee shall give appropriate consideration to the use of project lands and waters for campgrounds, recreational vehicles, fishing, hunting, wildlife, wildlife viewing, and canoeing. In addition, the plan shall describe any proposed changes in the recreational use of lands within the project boundary.

The Licensee shall prepare the plan after consultation with the Nebraska Game and Parks Commission and, the U.S. Fish and Wildlife Service. The Commission reserves the right to require changes to the plan. Upon approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 415. Land Use. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of

conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use

Project No. 1835-013

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and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads;

(5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior

Project No. 1835-013

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calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the licensee shall so inform the Commission and the Regional Director in writing no later than January 31 of each year.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (I) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is

Project No. 1835-013

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not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (I) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this

article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(E) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(F) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided

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in Section 313(a) of the FPA. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this license.

By the Commission.

(S E A L)

Linwood A. Watson, Jr.,
Acting Secretary.

Project No. 1835-013

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APPENDIX A

Water Quality Certification
for the North Platte/Keystone Diversion Dam Project
Issued February 27, 1985, by the
Nebraska Department of Environmental Conservation

As requested in a letter dated July 10, 1984 from Crowell and Moring we have reviewed FERC Project No. 1835 for State Water Quality Certification under Section 401 of the Clean Water Act of 1977. It is our determination that operation of this project will comply with the applicable provisions of the Clean Water Act of 1977.

However, we reserve the right to apply our appropriate regulatory authority to individual elements of this project. Specifically, we will continue to regulate the discharge from Gerald Gentleman Station under Section 402 of the Clean Water Act (NPDES permit number NE0111546). It is noted that the Corps of Engineers Section 404 permit for dredging activities at the Korty Diversion Dam (NE 2SB OXT 2 003812) has expired. We will apply the appropriate authority under Section 401 for a Section 404 permit or Section 402 for the Korty Diversion Dam dredging activities. The same holds true for any future activities which are applicable under Sections 402 and 404 of the Clean Water Act of 1977.

We therefore, by this letter, provide Water Quality Certification.

June 30, 1997

From Agreement in Principle
Reprinted in Appendix B-T
Kinsley BO

June 30, 1997

See also
CA regarding
access to lands

fair share of dollars in the Program, as providing value toward Program goals for the recovery of those species, with credit to be given after the term of the Cooperative Agreement. Related costs of acquisition, development and maintenance shall all be included. Nothing in this section precludes the Districts from independently proposing to the Governance Committee that these activities be counted. Nothing in this agreement would preclude reimbursement of the Districts by the Governance Committee or its designee for dollars in excess of what is ultimately determined to be Nebraska's share. Nothing in the agreement to provide Habitat Lands in this reach shall modify the Districts' rights under the Environmental Account Program to divert water for beneficial use other than the limitations of Paragraphs III.A.9 and 10 of the Environmental Account Program.

4. J-2 Return to Chapman

a. The parties agree that the activities described in this section adequately respond to recommendations on the record of the FERC proceeding that the Districts should restore, protect and manage habitat areas in this reach for whooping cranes, interior least terns, piping plovers, other waterfowl and bald eagles. The parties agree that no other efforts to protect or create habitat in this reach of the river should be required of the Districts in their FERC licenses.

b. Within one year of license issuance, the Districts will provide approximately 2650 contiguous acres of Program Habitat Lands, located in an area on both sides of the Platte River between the J-2 Return and Elm Creek, and including in excess of two miles of river channel. This land is adjacent to land owned and managed by the Trust and Nature Conservancy.

c. Enhancement and management of these Program Habitat Lands are through the Cooperative Agreement and the Program. As a convenience and to expedite implementation, the Districts will accept responsibility to develop and implement a plan to enhance these Program Habitat Lands during the term of the Cooperative Agreement, with the understanding that the Districts will be fully reimbursed by the Governance Committee. With that understanding, the Districts agree to provide up to \$1.3 million (\$500/acre) to develop and enhance these lands. An enhancement plan will be developed in coordination with FWS and NGPC, and working through the Governance Committee or its

June 30, 1997

designees, and will be finalized with FWS and NGPC concurrence within one year of relicensing. The Districts will begin implementing the plan within six months of obtaining final approvals. If possible, this plan will permit management of these Program Habitat Lands in conjunction with adjacent lands owned by environmental groups as a single complex. It is anticipated that the complex will include at least one tern and plover nesting habitat area. The Governance Committee will be responsible for developing and implementing plans to maintain these habitat areas, funded through the Cooperative Agreement's and the Program's land management funding mechanisms. While the Program remains in effect, the Districts shall not otherwise be responsible for enhancing or maintaining these Program Habitat Lands except to provide access to the entities designated by the Governance Committee to engage in such activities. Should a Program not be initiated or be terminated, the Districts agree to provide up to \$1.3 million (\$500/acre) less any funds expended by the Program to develop and enhance these lands. In such circumstances, the Districts would also provide, when required, up to \$15/acre in cash or in kind for maintenance to be measured on a three-year rolling average basis, except that the Districts will not be required to spend more than \$20/acre in any one year. Maintenance obligations are not mandatory expenditures; the Districts will undertake maintenance only when and if required.

d. These Habitat Lands will be Program Habitat Lands, and will be counted toward the 10,000 acre habitat goal of increment one of the Proposal, and/or toward any ultimate habitat acreage goal of the Program. The value of this land shall be counted toward satisfying Nebraska's share of total Program costs. Nothing in this agreement would preclude reimbursement of the Districts by the Governance Committee or its designee for dollars in excess of what is ultimately determined to be Nebraska's share.

5. Additional Tern and Plover Nesting Habitat

a. The parties agree that the activities described in this section adequately respond to recommendations on the record of the FERC proceeding that the Districts should develop and maintain tern and plover nesting habitat sites. The parties agree that no other efforts to protect or create such habitat should be required of the Districts by FERC.

ne 30, 1997

June 30, 1997

fair share of dollars in the Program, as providing value toward Program goals for the recovery of those species, with credit to be given after the term of the Cooperative Agreement. Related costs of acquisition, development and maintenance shall all be included. Nothing in this section precludes the Districts from independently proposing to the Governance Committee that these activities be counted. Nothing in this agreement would preclude reimbursement of the Districts by the Governance Committee or its designee for dollars in excess of what is ultimately determined to be Nebraska's share. Nothing in the agreement to provide Habitat Lands in this reach shall modify the Districts' rights under the Environmental Account Program to divert water for beneficial use other than the limitations of Paragraphs III.A.9 and 10 of the Environmental Account Program.

4. J-2 Return to Chapman

a. The parties agree that the activities described in this section adequately respond to recommendations on the record of the FERC proceeding that the Districts should restore, protect and manage habitat areas in this reach for whooping cranes, interior least terns, piping plovers, other waterfowl and bald eagles. The parties agree that no other efforts to protect or create habitat in this reach of the river should be required of the Districts in their FERC licenses.

b. Within one year of license issuance, the Districts will provide approximately 2650 contiguous acres of Program Habitat Lands, located in an area on both sides of the Platte River between the J-2 Return and Elm Creek, and including in excess of two miles of river channel. This land is adjacent to land owned and managed by the Trust and Nature Conservancy.

c. Enhancement and management of these Program Habitat Lands are through the Cooperative Agreement and the Program. As a convenience and to expedite implementation, the Districts will accept responsibility to develop and implement a plan to enhance these Program Habitat Lands during the term of the Cooperative Agreement, with the understanding that the Districts will be fully reimbursed by the Governance Committee. With that understanding, the Districts agree to provide up to \$1.3 million (\$500/acre) to develop and enhance these lands. An enhancement plan will be developed in coordination with FWS and NGPC, and working through the Governance Committee or its

fair share of dollars in the Program, as providing value toward Program goals for the recovery of those species, with credit to be given after the term of the Cooperative Agreement. Related costs of acquisition, development and maintenance shall all be included. Nothing in this section precludes the Districts from independently proposing to the Governance Committee that these activities be counted. Nothing in this agreement would preclude reimbursement of the Districts by the Governance Committee or its designee for dollars in excess of what is ultimately determined to be Nebraska's share. Nothing in the agreement to provide Habitat Lands in this reach shall modify the Districts' rights under the Environmental Account Program to divert water for beneficial use other than the limitations of Paragraphs III.A.9 and 10 of the Environmental Account Program.

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b. Within one year of license issuance, the Districts will provide approximately 2650 contiguous acres of Program Habitat Lands, located in an area on both sides of the Platte River between the J-2 Return and Elm Creek, and including in excess of two miles of river channel. This land is adjacent to land owned and managed by the Trust and Nature Conservancy.

c. Enhancement and management of these Program Habitat Lands are through the Cooperative Agreement and the Program. As a convenience and to expedite implementation, the Districts will accept responsibility to develop and implement a plan to enhance these Program Habitat Lands during the term of the Cooperative Agreement, with the understanding that the Districts will be fully reimbursed by the Governance Committee. With that understanding, the Districts agree to provide up to \$1.3 million (\$500/acre) to develop and enhance these lands. An enhancement plan will be developed in coordination with FWS and NGPC, and working through the Governance Committee or its

OFFER OF SETTLEMENT
FOR PROJECT NO. 1417 AND PROJECT NO. 1835

ATTACHMENT A

EXPLANATORY STATEMENT

This Explanatory Statement discusses the Settlement reached in the relicensing proceedings for FERC Projects Nos. 1417 and 1835 on the Platte River in Nebraska. The terms of the Settlement are defined in three documents. The *Agreement on All Issues Reached in FERC Trial Staff Settlement Meetings* (AAI) among the Central Nebraska Public Power and Irrigation District (Central), Nebraska Public Power District (NPPD) (collectively the Districts), the Department of the Interior (DOI), the State of Colorado, the State of Wyoming, the Nebraska Water Users, Inc., the National Audubon Society, the Platte River Whooping Crane Critical Habitat Maintenance Trust, the Sierra Club, American Rivers, and the Nebraska Wildlife Federation was filed with FERC on January 15, 1998. The AAI adopts by reference, except as expressly modified, the *Agreement in Principle for License Conditions for Projects Nos. 1417 and Project No. 1835* (AIP),¹ dated June 30, 1997, which was reached by the

Page missing

^{1/} Reprinted in, U.S. Fish and Wildlife Service (FWS), *Biological Opinion on the Federal Energy Regulatory Commission's Preferred Alternative for the Kingsley Dam Project (Project No. 1417 and North Platte/Keystone Dam Project (Project No. 1835) (BO)*, Appendix B (July 1997).

Program Habitat Lands to wildlife is also likely to be greater than could be achieved under the Preferred Alternative because of the Adaptive Management approach of the Proposed Program and the broader resource base to support changes of direction.

As described in the AIP, the Districts provide and develop the first Program habitat complex, the approximately 2650-acre Cottonwood Ranch parcel, even before a Program goes into effect.¹⁸² The Districts may also "jump start" the second such complex by acquiring approximately 1200 acres below J-2 during the first eighteen months after license issuance.¹⁸³

- a. Cottonwood Ranch
Commitment: AIP, section IV.A.4

NPPD currently owns the Cottonwood Ranch property.

Consistent with the AIP, NPPD's Proposed License Article 407 calls for NPPD to provide Cottonwood Ranch for wildlife purposes within one year of relicensing.¹⁸⁴

The parties to the Settlement and the signatories to the Cooperative Agreement anticipate that ultimately, development and maintenance of Program Habitat Lands will be achieved with Program funds. To expedite the process, however, NPPD will develop the Cottonwood Ranch parcel with the expectation of Program

¹⁸² AIP, section IV.A.4.b; NPPD's Proposed License Article 407.

¹⁸³ See discussion in section IV.D.1.b below. *not in AIP?*

¹⁸⁴ AIP, section IV.A.4.b.

reimbursement.¹⁸⁵ Development expenses are capped under the agreement, and plans must be developed working with FWS, NGPC, Central and the Governance Committee.¹⁸⁶

In the event the Cooperative Agreement or Program fails, NPPD will take over the Program's responsibility to maintain the Cottonwood Ranch parcel, as described in the AIP and NPPD's Proposed License Article 408.

b. **Possible Additional Program Habitat Lands**
*Commitments: AAI, Modifications/Additions, section D;
AIP section IV.A.3*

As discussed in the following section, the remainder of the Habitat Lands to be provided by the Districts are expected to ultimately be located in reaches upstream from the Associated Habitats. Under the AAI, however, the Districts are to use some of the resources intended for upstream habitat to acquire 1200 acres of Habitat Lands in the Associated Habitats within eighteen months after licensing. This commitment is reflected in Central's Proposed License Condition 417. If the FWS recommends and the Program takes over these lands and reimburses Central, these resources are redirected to the upstream habitat.¹⁸⁷

¹⁸⁵ AIP, section IV.A.4.c; NPPD's Proposed License Article 407. The license article reflects only NPPD's responsibilities; any reimbursement agreement is, of course, outside FERC's jurisdiction to enforce.

¹⁸⁶ AIP, section IV.A.4.c.

¹⁸⁷ AAI, Modifications/Additions, section D.



John J. Shadle
Regulatory & Permitting Administrator

Nebraska Public Power District
Nebraska's Energy Leader

jjshadl@nppd.com
(402) 563-5489 / 5028 fax

RECEIVED

JAN 28 2002

Colorado Water Conservation Board

July 29, 1999

Mr. Steve Anschutz
U.S. Fish & Wildlife Service
203 West 2nd Street
Federal Bldg, 2nd Floor
Grand Island NE 68801

Mr. Mike Fritz
NE Game & Parks Commission
2200 N 33rd Street
PO Box 30370
Lincoln NE 68503

Mr. Mark Peyton
CNPP&ID
PO Box 740
Holdrege NE 68949-0740

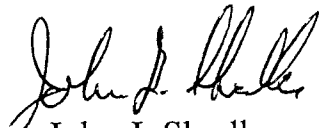
RE: ***NPPD Project 1835 – Cottonwood Ranch Plan – Article 407***

Dear Steve, Mike & Mark:

Enclosed is a courtesy copy of Nebraska Public Power District's (NPPD) Development and Enhancement Plan for NPPD's Cottonwood Ranch Property that was filed with FERC on July 29, 1999.

If you have any questions, please contact me.

Sincerely,


John J. Shadle
Regulatory & Permitting
Administrator

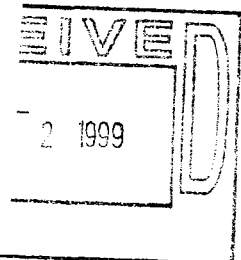
 **PARSONS**
PARSONS ENGINEERING SCIENCE, INC.
www.parsons.com

is there is article 405, 423
monitoring
407
Cottonwood Ranch

Attachment

cc: Dale Strickland – Exec Dir. Gov. Comm w/

84 Fax 6/10/98



GENERAL OFFICE

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Telephone: (402) 564-8561 / Fax: (402) 563-5551
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July 29, 1999

Via Hand Delivery

Honorable David P. Boergers
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

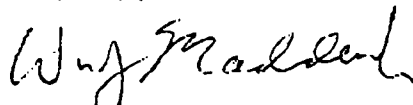
Re: Nebraska Public Power District, Project No. 1835;
Cottonwood Ranch Property Plan (Article 407)

Dear Secretary Boergers:

Enclosed for filing in the above-referenced proceeding are an original and eight copies of the Cottonwood Ranch Property Plan for Nebraska Public Power District's ("NPPD") North Platte/Keystone Diversion Dam Project No. 1835. This submittal is being made in accordance with Article 407 of the new license issued on July 29, 1998. That article requires NPPD to develop and file for Commission approval within one year of license issuance (*i.e.*, by July 29, 1999) a plan to develop and enhance a 2,650 acre parcel for wildlife use.

Evidence of NPPD's consultation with various resource agencies is set forth in appendices to the plan.

Very truly yours,



William J. Madden Jr.
Attorney for Nebraska Public
Power District

Enclosures

**Development and Enhancement Plan
For
Nebraska Public Power District's
Cottonwood Ranch Property
(July 21, 1999)**

In Accordance With

Federal Energy Regulatory Commission License 1835, Article 407
(Nebraska Public Power District)

Prepared by:

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Development and Enhancement Plan for NPPD's Cottonwood Ranch Property

1.0 Background

On July 29, 1998, the Federal Energy Regulatory Commission (FERC) issued a 40-year license for Nebraska Public Power District's (NPPD) Project 1835, North Platte/Keystone Diversion Dam. License Article 407 for Project 1835 states:

Within one year of the issuance date of this license, the Licensee shall, consistent with Section IV.A.4 of the Agreement in Principle dated June 30, 1997, provide for wildlife habitat under the Program approximately 2,650 contiguous acres of land located in an area on both sides of the Platte River between the J-2 Return and Elm Creek and including in excess of two miles of river channel.

The Licensee shall develop in consultation with the U. S. Fish and Wildlife Service ("FWS"), the Nebraska Game and Parks Commission ("NGPC"), the Governance Committee, and the licensee of Project 1417, a plan to develop and enhance the 2,650 \pm acre parcel of land for wildlife use. This plan shall be completed with the concurrence of FWS and NGPC and filed for Commission approval within 12 months of the issuance date of this license. The plan shall also provide for the development of at least one least tern/piping plover habitat area. The Licensee shall begin implementing the plan within six months of obtaining final approvals.

The Licensee shall spend up to \$1.3 million (1997 dollars) (less any amounts expended by the Program for development and enhancement measures) to implement the development and enhancement measures of the approved plan; provided, however, that nothing herein is intended to preclude the Licensee from seeking reimbursement of such expended funds from the Governance Committee.

The Licensee shall not be responsible for maintaining these lands as long as the Governance Committee under the Cooperative Agreement or under the Program assumes responsibility for such maintenance. Should the Program fail to provide and implement a maintenance program, the Licensee shall assume responsibility for maintaining these lands and shall spend up to but not more than \$15/acre (1997 dollars) in cash or in-kind contributions for maintenance on a three year rolling average basis, provided that the Licensee shall not in any year be required to spend more than \$20/acre (1997 dollars) for maintenance. Within 90 days of the time that it becomes clear that the Program is unwilling or unable to provide maintenance of these lands, the Licensee shall prepare, in consultation with the FWS and NGPC, a maintenance plan and file it for Commission approval. The Commission reserves the right to make reasonable changes to the plan and to require periodic revisions, as necessary by the Licensee.

NPPD will make available a parcel of land for wildlife habitat purposes known as NPPD's Cottonwood Ranch Property (Property), per the requirements of Article 407. NPPD's Cottonwood Ranch Property is located between Overton and Elm Creek, Nebraska and consists of approximately 2,770 acres (Exhibit A). The Property encompasses both sides of the main river channel for approximately 3 miles (see figure 1). NPPD purchased this property in 1992 from a willing seller in anticipation of needing to acquire properties for endangered species management purposes. NPPD expects this property will count for a portion of the 10,000 acres needed in the first increment of the proposed Program¹. NPPD will maintain ownership of the Property and spend up to \$1.3 million (1997 dollars) to develop and enhance the Property for three of the four target species of the proposed Program. The target species are least terns (*Sterna antillarum*), piping plover (*Charadrius melodus*), and whooping cranes (*Grus americana*). The Property currently contains approximately 1,200 acres of riparian cottonwood dominated forest, 500 acres of grasslands, 600 acres of agricultural ground and the remainder is river channel, roads or building sites. The Platte River at this site is anabranching with the widest active channels being about 500 feet.

In order to ensure that the amounts of money to be made available for development and enhancement measures and, if necessary, for maintenance purposes retain their value in 1997 dollars, consistent with Article 407, NPPD will, at the beginning of each calendar year, adjust the applicable amount by calculating the percentage change of the Gross Domestic Product - Implicit Price Deflator Index as reported by the Bureau of Economic Analysis, Department of Commerce (<http://www.bea.doc.gov/>) for the preceding year. NPPD will promptly advise the U.S. Fish and Wildlife Service (FWS) and Nebraska Game and Parks Commission (NGPC) each year of the calculations and adjustments made pursuant to this index.

To expedite the development and enhancement of the Cottonwood Ranch Property for the target species, NPPD in consultation with the FWS, NGPC, The Central Nebraska Public Power and Irrigation District (Central) and the Governance Committee have developed this Plan per License Article 407 (see Appendix A for complete consultation history). Representatives from the above entities met on several occasions, including two trips to the property to develop a concept of how the Property should be managed for endangered species. The result of those consultations is this Plan to develop and enhance the Cottonwood Ranch Property for whooping cranes, least terns and piping plovers.

For the purposes of this Plan, development will be considered as an increase in the amount of habitat for the target species and enhancement will be considered as an improvement in the quality of habitat for the species. Development and enhancement measures are the actions taken to achieve development and enhancement objectives. This Plan sets forth development and enhancement objectives in a prioritized manner but does not specifically identify development and enhancement measures. Specific development and enhancement measures

¹ The Cooperative Agreement, signed July 1, 1997 by Secretary Babbitt of the Department of Interior, Governor Romer of Colorado, Governor Nelson of Nebraska and Governor Geringer of Wyoming, provides an ESA framework for water related activities in the Platte River drainage to and through the central Platte River including FERC Project 1835. The Cooperative Agreement puts forward a Proposed Platte River Recovery Implementation Program (Program) as a vehicle to address threatened and endangered species using the central Platte River Area.

to be taken will be determined throughout the course of implementing this Plan and the adaptive management approach set forth in the Cooperative Agreement will be applied. This Plan addresses the development and enhancement of the Property but does not address maintenance activities.

NPPD will not be responsible for maintenance of the Property as long as the Governance Committee under the Cooperative Agreement or Program assumes responsibility for maintenance, as stated in License Article 407. Should the Governance Committee not assume responsibility for maintenance, NPPD will develop a maintenance plan. A maintenance plan will be submitted to FERC within 90 days of failure of the Cooperative Agreement or the Governance Committee states in writing that it is unwilling or unable to provide maintenance to the Property.

Monitoring efforts to provide information on baseline habitat conditions and species use of this Property as well as to monitor the effectiveness of the developments and enhancements were submitted to FERC in the monitoring plan required under Article 405 for FERC Project 1835. NPPD and Central developed the Monitoring Plan in consultation with the FWS and NGPC and filed the Monitoring Plan with FERC on January 25, 1999. NPPD will also work with the Governance Committee and their appointed Technical Committee to insure that appropriate monitoring and evaluation methodologies are in place to allow for future decision-making using the adaptive management concept outlined in the Proposed Program.

2.0 Development and Enhancement Implementation

Development and enhancement of the Property will be completed through the prioritized approach outlined in Section 4 and will be implemented in phases to provide benefits to target species in a timely manner. The purpose of all development and enhancement objectives will be to provide a quantitative and/or qualitative improvement of habitat for the target species based on current knowledge of species needs and habitat development and enhancement techniques. The development and enhancement of habitat will be completed in 4 to 6 years after approval of this Plan by FERC. NPPD is obligated to spend up to \$1.3 million (1997 dollars) to expedite development and enhancement of the Property although this plan has an estimated cost of \$1.3 to \$1.48 million. NPPD will incur all costs outlined in the development and enhancement Phases up to \$1.3 million (1997 dollars). Should the cost of implementing this Plan exceed \$1.3 million (1997 dollars), the Oversight Committee will determine if the Plan should be revised or attempt to secure outside funding to complete the Plan.

2.1 Development and Enhancement Oversight Committee

A Development and Enhancement Oversight Committee (Oversight Committee) will be established for the purpose of identifying, designing and recommending specific development and enhancement measures to NPPD to complete the development and enhancement phases of this Plan. The Oversight Committee will be comprised of one representative from each of the following entities for as long as they wish to participate: FWS, NGPC, Central, the Governance Committee and NPPD. For ease of

communication there will be one identified representative; however, this does not preclude each entity from having additional participation on the Oversight Committee. Participation from the Governance Committee will be appointed by the Governance Committee. To achieve the development and enhancement objectives, this committee will convene at intervals sufficient to insure timely implementation of the developments and enhancements of the Property. As per Article 407, concurrence from the FWS, NGPC and NPPD Oversight Committee members will be required on all recommended measures before implementation.

The Oversight Committee may seek the outside expertise, at their own expense, to aid in the development and enhancement of the Property. All costs associated with meetings of this committee will not be charged against the \$1.3 million (1997 dollars) obligation of NPPD. Attendance at all Oversight Committee meetings will be voluntary and without compensation. NPPD will draft all written documents and meeting minutes, make meeting arrangements and handle other logistics of the Oversight Committee.

The Oversight Committee will prioritize measures and determine if all baseline and engineering data necessary for achieving the development and enhancement objectives are available prior to implementing the phases set out in this Plan. If adequate information is not available, NPPD will consult with the Oversight Committee to determine if the needed information exists or can be obtained from other sources. Development and enhancement methodologies will be completed by the Oversight Committee to achieve the phases described in Section 4.

These development and enhancement methodologies will include: measurable objectives of the development or enhancement measures, costs, methods, data needs, monitoring and evaluation needs, level of impacts, specific dates for initiation and completion, and any other relevant information (Exhibit B). The development and enhancement methodologies will outline how to achieve development and enhancement objectives, timelines to allow NPPD to establish budgets, and also allow the Governance Committee time to establish monitoring and evaluation methodologies to facilitate the adaptive management concept of the Proposed Program. The development and enhancement methodologies will identify any permits needed to do the work and allow sufficient time to obtain those permits.

3.0 Development and Enhancement Objectives

3.1 Documentation of Physical Setting

Objective: Document the physical setting of the Property required to implement development and enhancement measures.

Conduct surveys of topography, groundwater, cultural resources, unique areas or any other aspects of the physical make up of the Property necessary to develop and enhance the Cottonwood Ranch Property for whooping cranes, least terns and piping plovers. Surveys will also address possible impacts, both positive and negative, from

development and enhancement measures on adjacent landowners. Surveys may range from highly accurate to simple observations, but will result in measurements sufficient to design and implement the development and enhancement measures.

3.2 Least Tern and Piping Plover Habitat

Objective: Develop at least one suitable least tern/piping plover habitat area.

Article 407 for Project 1835 specifically states that at least one least tern and piping plover nesting habitat area is to be developed on the Cottonwood Ranch Property. The tern and plover habitat area will consist of bare sand and gravel areas. Nesting habitat will be in or near the main channel of the Property. Least tern and piping plover habitats will be designed so that electric fences and other predator management measures can be employed if deemed desirable.

The Property does not currently contain any habitat suitable for least terns and piping plovers nesting. Nesting habitat will need to be developed and will be completed during phase 1. A development and enhancement methodology will be completed that will specifically identify the area(s) to be developed, size of area(s), existing conditions, desired condition of the site, and cost of development and enhancement measures.

This habitat area will be available for use by least terns and piping plovers within 18 months of approval of this Plan by FERC. If permits are required, the development of this habitat area(s) will not be initiated until the necessary permits have been obtained. Application for permits will be filed within 90 days after FERC approval of this Plan.

3.3 Channel Development and Enhancements

Objective: Develop and enhance in channel habitat, so as to be free of woody vegetation at a width sufficient to provide secure roosting habitat for whooping cranes and nesting habitat for least terns and piping plovers.

Channel and bank geometry, morphology and vegetative communities will be modified on the Property to develop and enhance the area for whooping crane roosting, and least tern and piping plover nesting habitat. Channel enhancements will be addressed in phases 1, 3, 4, 5 and 6. Phase 1 channel development and enhancement measures will be in areas that are relatively free of woody vegetation and that will markedly enhance the overall unobstructed width of the channel. Subsequent phases will be in narrower more wooded channel areas and will enhance in-channel habitat conditions in a sequential manner.

The Property contains approximately 3 miles of channel. Most channels on the Property have an unobstructed width of less than 500 feet. In order to obtain the desired unobstructed channel widths, it will be necessary to remove woody vegetation from 415 to 485 acres. An additional 150 to 160 acres of woody vegetation will be removed in Phase 6 to enhance visual openness of the Property. Development and enhancement

methodologies will be developed by the Oversight Committee to achieve channel development and enhancement objectives. When riparian forest or grasslands are removed or modified for channel enhancement, the development and enhancement methodologies will quantify how much of the enhanced areas will be active channel, roosting and nesting habitat, seeded to native grassland species, or allowed to revegetate without any further development. Potential methods to control invasive species will be included in the development and enhancement methodologies.

To enhance an unobstructed width of the channel, woody vegetation will be removed from the islands and banks. Trees identified as known bald eagle (Haliaeetus leucocephalus) perch or roost sites will be left in place, unless the FWS and NGPC provide written authorization to NPPD to remove such trees. Other trees that may make high quality perch sites may be left standing if agreed to by the Oversight Committee. Additionally, trees containing rookery or raptor nest may be left if agreed to by the Oversight Committee. All clearing of woody vegetation will be done between July 15 and February 15. Areas cleared of woody vegetation will be planted to native grassland plant species, or be allowed to revegetate naturally, unless being managed as least tern and piping plover nesting habitat, backwaters, sloughs or active channels. Active channels will be defined as areas having a bed elevation low enough to allow flowing water for at least a portion of the year. Active channels may be designed to flow water on a continual basis or only during high flow events. Reshaping of the banks and potential for widening of the channels will be considered and evaluated by the Oversight Committee for each phase of the Plan that deals with channel areas.

The channel development and enhancement methodologies will identify specific tracts of woody vegetation to be removed and the priority in which they will be completed. Channel enhancement activities will commence after the Oversight Committee has approved a methodology and all permits are acquired.

NPPD will obtain all required permits. Costs associated with obtaining permits or mitigation for permits will be included in the cost of the development and enhancement of the Property.

3.4 Wet Meadow, Slough, and Backwater Enhancement/Creation/Restoration With in the High Banks of the River

Objective: Develop and enhance areas to provide grassland foraging areas, sloughs, backwaters and roosting habitat.

Most definitions for wet meadows require that soils be saturated at or near the soil surface for at least part of the growing season. The Property contains approximately 320 acres of naturally occurring grasslands on islands, which typically do not have saturated soil near the surface for sufficient lengths of time to be considered wet meadows. The Property also contains numerous backwaters and sloughs. For the purpose of this Plan, backwaters will be defined as areas of permanent or semi-permanent surface water that have a surface water connection to existing river channels at normal summer flow stages

on the downstream end but not on their upstream end, except during relatively high flow events. Sloughs are linear wetlands that are ephemeral to permanent and do not have surface water connections to existing channels except during relatively high flow events.

Most slough and backwater areas exist within the forested portions of the Property that will be cleared during the different phases of this Plan. Both of these habitat types will be developed and enhanced to provide habitat for the target species. Both habitat types when managed in conjunction with surrounding upland areas and active channels can provide loafing, foraging and roosting habitat for whooping cranes. Backwaters may also provide reproductive habitat and refugia for fish and aquatic invertebrates thus provide foraging areas for least terns and piping plovers.

Development of grasslands, backwaters and sloughs will require delineation of existing backwaters and sloughs. An evaluation of existing groundwater conditions under various flow and precipitation conditions may be necessary. Some of this information may be available from other studies and will be obtained. After these parameters have been determined, a development and enhancement methodology will be completed to develop and enhance these habitats. This development and enhancement methodology may not be possible until baseline data on groundwater conditions, vegetative composition and soil types are evaluated and the overstory of woody vegetation is removed.

Each backwater will contain some area that is deeper than the adjacent riverbed to the site. The downstream connection of each backwater will be excavated to insure a surface water connection at flows normally available during summer flow periods. Backwaters will provide water depths suitable for roosting habitat at a wide range of river stages. Backwaters will also provide foraging areas for least terns and piping plovers over a wide flow range.

Sloughs will be constructed so that they have a surface flow connection to the river at high river stages. Sloughs will contain areas that are deeper than the riverbed in the adjacent channel. Sloughs will be shaped to provide whooping crane roosting and foraging habitat and low flow velocities as refugia for least tern forage fish even at relatively high flows (i.e. greater than 5,000 cfs).

Data gathering efforts needed to develop grassland, backwater, and slough development and enhancement methodologies will be part of phase 1. Enhancement of these habitat types will be initiated after approval of this plan by FERC or when all data and permits needed to implement development and enhancement measures are obtained.

3.5 Grassland, Wetland and Meadow Development and Enhancement Away Outside the High Banks of the River

Objective: Develop and enhance grasslands, wetlands and/or wet meadow habitats in areas outside the high banks of the river.

The southern portion of the Property is contiguous to lands owned and managed by the Platte River Whooping Crane Habitat Maintenance Trust Inc. (Trust) and The Nature Conservancy (TNC). The Property has approximately 560 acres of farmland, grassland and wetlands that are south of the historic high bank of the river. These areas are adjacent to approximately 600 acres of land owned by the Trust, which is contiguous with approximately 240 acres of land owned by TNC. Much of this land is marginal farmland because of high ground water tables and may be suitable for management as grasslands, wetlands or wet meadow habitats. The Oversight Committee will explore future opportunities to work with the Trust and TNC in developing grassland, wetlands and/or wet meadow habitat. If the Trust or TNC wish to work with the Oversight Committee, development and enhancement methodologies will be completed to facilitate development and enhancement of these lands jointly; otherwise the development and enhancement methodologies will be completed to develop and enhance the Property independently.

Enhancement of existing wetlands on the Property will be a priority. These enhancements may include removal of built up silt and sediment deposits, vegetation and/or increasing existing water supplies through natural or artificial means. Old swales that are still present but have been altered by past agricultural practices may be restored.

The design of wetland areas on the south side of the Property will include the installation of groundwater monitoring wells to assess impacts on the surrounding area. Detailed survey work will also be needed to insure that there are no negative impacts from surface water runoff to adjacent landowners and determine if surface water can be utilized for beneficial purposes. Any alteration to existing groundwater drainage systems will be modeled to ascertain that no impacts from rising groundwater levels will impact adjacent landowners. The Oversight Committee will obtain appropriate information before finalizing enhancement and development methodologies.

The development and enhancement methodologies will include the extent of property to be managed, responsibilities of each cooperating partner, methods to be used, and monitoring and evaluation techniques. Due to the number of cooperating entities involved with such a project, a longer time period may be required to develop and finalize development and enhancement methodologies and no timeline will be set for completion of projects done in conjunction with the Trust and TNC. Identification of possible management options, information needs and development and enhancement measures will be included in Phase 2. NPPD will not be required to spend any of the \$1.3 million (1997 dollars) on management of properties owned by other entities but agrees to coordinate management of the Property with the other entities to maximize benefits to the target species.

3.6 Bald Eagle Perch and Roost Sites

Objective: Protect bald eagle roost and perch sites.

The Cottonwood Ranch Property has one identified bald eagle roosting area. This area has been delineated (Figure 2) and will not be subjected to any clearing activities. All planned developments in Section 4 of this Plan will be outside the known bald eagle roosting area. As development and enhancement measures are reviewed by the Oversight Committee the potential for impacts on bald eagle roost and perch sites will be considered and minimized to the extent possible. While no mitigation of impacts to bald eagle roost and perch sites is expected to be needed, if it becomes necessary, it would be considered a development and enhancement cost.

In addition, all commonly used perch trees and any other trees agreed to by the Oversight Committee will be left standing as eagle perch sites, unless written clearance is given by the FWS and NGPC to remove known perch trees.

3.7 Agricultural Uses

Objective: Restore agricultural areas to a more natural or historic state and utilize agricultural practices to enhance the value of the Property for the target species.

There are currently approximately 240 acres of cultivated row crops and 50 acres of alfalfa. Both of these crops are known to be used by foraging whooping cranes and will be retained as cropland with the following stipulations: A) cropland may be altered in areas necessary to connect historic swales; B) cropland may be converted to wetland areas where such conversion is a restoration of identifiable wetlands or desirable to restore drainage patterns on the Property; C) croplands may also be restored to native prairie; D) any conversion of cropland to other habitat will include an objective of documenting use by target species.

The current grazing regime on the Property is to utilize an 80 acre warm season pasture as a calving area from approximately March to May for 150 cows. The cow-calf pairs are then allowed to access most of the remaining non-agricultural areas of the Property from May until approximately October when they are removed. This grazing regime creates low vegetation conditions desirable for whooping cranes but may reduce the amount of biodiversity found on the Property. It also selects for cool season plant species, which are able to grow before and after the grazing period. The Development and Enhancement Oversight Committee will develop a grazing protocol.

3.8 Recreation, Education, Public Access

Objective: Provide for recreation, education, and public access while taking all necessary precautions to reduce liability to NPPD and the Program.

NPPD will retain all access rights to the Property. NPPD agrees to allow access to the Property for any development or enhancement, studies, survey work, research and/or monitoring and education uses required by the Program. All such access to the Property will be coordinated through NPPD.

When all phases of this Plan have been implemented to the satisfaction of the Oversight Committee, NPPD will in coordination with the Oversight Committee, develop a public use policy for the Property. This policy will address all public access to the Property. The public use policy will be consistent with the sales contract signed when NPPD acquired the Property, unless mandated by the FERC or other state or federal agency.

Until a public use policy is developed, all access to the Property for outdoors recreational purposes will be managed by NPPD. All recreational access to the Property will be controlled by NPPD to avoid adverse impacts to threatened and endangered species and other protected wildlife.

4.0 Development and Enhancement Phases

This section prioritizes developments and enhancements and provides an estimated cost. Cost may vary dependent on contractor costs, changes in management methods or reprioritization of developments and enhancements. Money allocated per phase but not spent will be carried over to all subsequent phases until completion of the Plan or expenditure of the entire \$1.3 million (1997 dollars). Based on the best available information completion of this Plan is estimated to cost \$1.3 to \$1.48 million. This cost includes \$50,000 for survey and engineering work necessary to design development and enhancement methodologies or alleviate concerns of adjacent landowners. This can include: cultural resource surveys, land surveys, groundwater surveys and wells and any other survey work needed and agreed to by the Oversight Committee. Any of the survey money not spent on survey work will be carried over into the development and enhancement phases of the Plan. Included in the cost of each phase is a charge of 3 percent for administration and general charges and an interest during construction charge of 5.1 percent, which are standard business charges of NPPD to carry out this Plan. Each phase of the Plan also includes a \$3,000 labor expense for NPPD to oversee the development and enhancement measures on the Property.

All tree clearing costs are estimated to be \$900 per acre except in phase 6 where cost were estimated to be \$700 per acre. Cost associated with tree clearing will include complete removal of all woody vegetation. Cost associated with planting of native grassland species is estimated to be \$300 dollars per acre and will include seed cost, labor and control of invasive weeds until such time as the desired vegetative composition is achieved or the Oversight Committee determines weed control is no longer needed. Costs for development and enhancement of sloughs and backwaters are estimated to be \$20,000 per mile including excavation and placement of material. Channel developments and enhancement costs are estimated to be \$100,000 per mile. Cost for removal of silt and sediment from existing nonriverine wetlands are estimated to be \$100,000. Cost estimates were developed in consultation with the FWS and NGPC and are based on past habitat restoration work completed on the Platte River. All costs are based on best estimates and are subject to change thereby influencing the overall cost of this Plan.

If the minimal cost associated with each phase can be achieved, NPPD believes it will be able to complete in entirety this Plan under the \$1.3 million (1997 dollars) cost cap. If it is

not possible to achieve minimal cost, NPPD believes that this Plan can be completed through Phase 5, which would complete most channel and wetland enhancement and development activities. Phase 6 is designed to create an open space corridor between development and enhancements within the high banks of the river to the developments and enhancements outside the high banks of the river. However, it is possible that these concepts of developments and enhancements could change based upon knowledge gained in the future thus altering the total cost estimate of implementing the Plan.

4.1. Phase 1

Phase 1 will include the acquisition of all permits required to complete this Plan. Permit applications will be submitted within 90 days of FERC approval of this Plan. Initiation of development and enhancement measures will occur upon receipt of required permits. Development and enhancement measures phases that do not require permits will not be delayed while processing permits for other components of this Plan.

The Oversight Committee will identify any survey and information needs required for this phase or subsequent phases of development and management planning or implementation as outlined in Section 3.1.

Suitable nesting habitat for least terns and piping plovers will be developed (see section 3.2) within 18 months of approval of this Plan by the FERC or receipt of necessary permits. Area(s) to be developed are shown on Figure 3.

Channel development and enhancement measures (see section 3.3) will be undertaken in the eastern half of the Property in the main channel (Figure 3). Trees, except known bald eagle roost and perch sites or those identified by the FWS and NGPC will be removed on the north side of the main channel and all mid-channel islands. An estimated 80 to 90 acres of woody vegetation will be removed. In the area where the forest is removed there will be approximately 1.2 miles of slough and backwater development and enhancement (see section 3.4) and 30 acres seeded to native grassland plant species. All remaining areas will be managed as active channel, least tern and piping plover nesting habitat or allowed to revegetate naturally.

A grazing plan for the Property will be developed before or during the implementation of Phase 1. This plan will identify positive and negative impacts of grazing and how grazing can be used to achieve development and enhancement objectives. The costs associated with grazing management will not be included in the development and enhancement costs unless the Oversight Committee determines that grazing would be desirable as a development tool.

The estimated cost for Phase 1 is \$149,000 to \$157,000.

4.2 Phase 2

This Phase will focus on development of wetlands, grasslands and wet meadows. Wetland developments and enhancements will be undertaken on the south side of the Property (see section 3.5) (Figure 4). Before any development or enhancements take place on the south side of the property, the Oversight Committee will coordinate with the Trust and TNC and other adjacent landowners to achieve the greatest benefit to the target species. The Trust and TNC properties are adjacent and contiguous to the Property (Figure 4).

This phase also includes an estimated 2.5 to 3 miles of swale excavation in what is currently row crop agriculture. It further includes removal of silt and sediment from existing wetlands to increase the depth and suitability as a whooping crane habitat area. An estimated 150 to 200 acres of existing cropland or grassland will need to be seeded to native plant species.

Data gathering to implement Phase 2 will begin upon approval of the Development and Enhancement Plan by FERC. The estimated cost for Phase 2 is \$214,000 to \$241,000.

4.3 Phase 3

Phase 3 will continue the channel development and enhancement (see section 3.3) efforts undertaken in Phase 1. Phase 3 will include the removal of an estimated 95 to 115 acres (Figure 5) of woody vegetation forest from main channel islands in the western half of the Property. Once woody vegetation is removed, development and enhancement of backwaters and sloughs will occur. There will be an estimated 1.5 to 1.75 miles of backwater and slough development and enhancement and approximately 30 acres seeded to native grassland plant species. All areas cleared of woody vegetation will be managed as active channel areas, backwaters, sloughs or seeded to native grasslands. Management of active channel area will be based on information gathered during phase 1 on the feasibility of increasing active channel area.

The estimated cost for phase 3 is \$137,000 to \$162,000.

4.4 Phase 4

Phase 4 will concentrate on the northwest corner of the Property. This area has scattered rows of trees and several backwaters and sloughs that are relatively long. Woody vegetation will be removed from an estimated 110 to 120 acres (Figure 6). This entire area is adjacent to the main channel and approximately 80 to 90 acres of the area will be seeded with native grassland plant species. The backwaters and sloughs in this area are easily identifiable and already contain many desirable features. There will be approximately 3 to 4 miles of backwaters or sloughs developed and enhanced in this phase.

The estimated cost for phase 4 is \$201,000 to 236,000.

4.5 Phase 5

Phase 5 will further enhance the main channel area in the eastern half of the Property. An estimated 130 to 160 acres woody vegetation will be removed from the south bank of the main channel over a distance of approximately 2 miles (Figure 7). Woody vegetation except known bald eagle perch sites, or trees identified by the Service and NGPC will be removed. This area will be managed as active channel area, unless it has been determined that this measure will cause a sediment loading problem downstream. Channel enhancements will include attempting to widen the active channel areas by removing sediment tied up in the banks of a large interior island over a 2 mile stretch. All other portions of the area will be managed as grassland, backwaters, or sloughs. Approximately 110 acres will be seeded to native grassland plant species. The phase includes approximately 1 mile of backwater and slough area that will be developed and enhanced.

The estimated cost for phase 5 is \$375,000 to \$433,000.

4.6 Phase 6

An estimated 150 to 160 acres of woody vegetation would be removed so that no woody vegetation exists between the two main channels on the eastern 2 miles of the Property. This will form an open corridor from the development and enhancements within the high banks of the river to the developments and enhancements outside the high banks of the river (phase 2). There are approximately 1.5 miles of backwaters and sloughs that will be enhanced. Much of this area is sparsely treed reducing the cost of tree removal (Figure 8). It is estimated that approximately 100 to 120 acres of area will be seeded to native grassland plant species.

The estimated cost for phase 6 is \$182,000 to \$196,000.

5.0 Summary

This Development and Enhancement Plan is designed to maximize habitat benefits of NPPD's Cottonwood Ranch Property for whooping cranes, least terns, and piping plovers. The total cost of the Plan is estimated to be between \$1.3 million and \$1.48 million to fully implement. The phases of this Plan have been prioritized so that benefits to the target species are realized in the initial phases and increased as progress is made through the phases in the Plan. During the consultation process all parties involved recognized that it may or may not be possible to complete this Plan in its entirety under the cost caps set forth in Article 407. This plan sets forth a conceptual strategy for habitat development and enhancement and all parties agree to work in a cooperative manner to complete as much of this Plan as possible up to the existing cost cap of \$1.3 million (1997 dollars).

This Plan requires the removal of an estimated 565 to 645 acres of woody vegetation which consist of first and second successional stage riparian cottonwood forest to develop and enhance channels, backwaters, sloughs and grasslands for the target species. The plan will also develop and enhance an estimated 9.2 to 11 miles of sloughs and backwaters for the target species. (Figure 9).

There will be at least one nesting habitat area(s) for least terns and piping plovers developed on the Property. Nesting habitat will be bare sand and gravel substrate that can be protected from predators. Backwater and slough areas will also improve habitat for fishes and invertebrates, which are the prey base for least terns and piping plovers, respectively.

In addition to the above mentioned in-channel habitat development and enhancement, land areas outside the channel areas will be developed and enhanced as wetlands, grasslands, wet meadows or agricultural areas (Figure 9). It is anticipated that approximately 60 acres of wetlands will be developed or enhanced outside the high banks of the river on the south portion of the Property in cooperation with the Trust and TNC. There will also be 2.5 to 3 miles of swales developed and enhanced on this south portion of the Property (Figure 4).

NPPD will file with FERC an annual report that will describe all development and enhancement activities for that year. The annual report will include a total cost summary as well as a cost summary by phase. Descriptions of measures taken for any phase of this Plan will be included in the report. The annual report will describe on-going developments and enhancements and include a description of developments and enhancements to be done in the upcoming year.

Because it is anticipated that most development and enhancement measures will occur in the late summer, fall, and winter, NPPD will submit this report to FERC on or before July 31 of each year until all habitat developments and enhancements on the Property are completed.

Exhibit A:

*General Description and Property Boundary Map for the
NPPD Cottonwood Ranch Property*

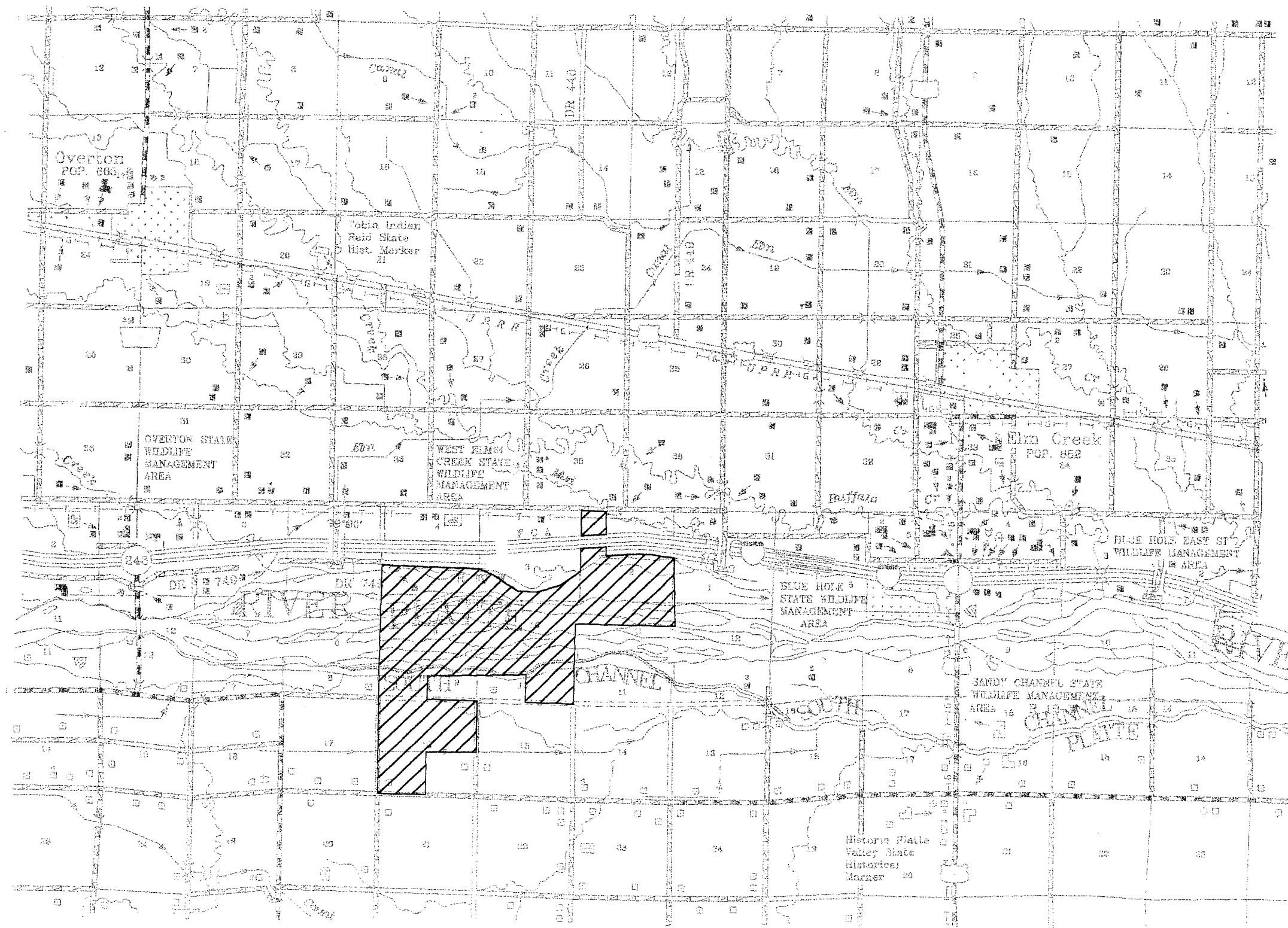


EXHIBIT A

COTTONWOOD RANCH

PORTIONS OF SECTIONS 2,3,4,9,10,11 AND 16, TOWNSHIP 3 NORTH, RANGE 19 WEST OF THE 6th.
PRINCIPLE MERIDIAN PARTS OF WHICH ARE IN DAWSON COUNTY AND IN PHELPS COUNTY, NEBRASKA.

Exhibit B:

Development and Enhancement Methodology Outline

DEVELOPMENT AND ENHANCEMENT METHODOLOGY OUTLINE

Activity:

Objective: (Quantifiable)

Site:

Data Required:

Methods:

Schedule:

Permits:

Estimated Cost:

Bid Specifications:

Adverse Effects:

Monitoring and Evaluation Requirements:

Completion Date:

FIGURES:

- Figure 1.** Location of NPPD's Cottonwood Ranch Property.
- Figure 2.** Location of identified bald eagle roost site.
- Figure 3.** Area to be developed and enhanced in phase 1, includes approximately 80-90 acres of woody vegetation removal, 30 acres of seeding to native grassland plant species, and 1.2 miles of slough and backwater development and enhancement.
- Figure 4.** Area to be developed and enhanced in phase 2, will include wetland development, planting of native grassland plant species, and reconstruction of old swales.
- Figure 5.** Area to be developed and enhanced in phase 3, includes approximately 95-115 acres of woody vegetation removal, 30 acres of seeding to native grassland plant species, 1.5-1.75 miles of slough and backwater development and enhancement.
- Figure 6.** Area to be developed and enhanced in phase 4, includes approximately 110-120 acres of woody vegetation removal, 80-90 acres of seeding to native grassland plant species, 3-4 miles of slough and backwater development and enhancement.
- Figure 7.** Area to be developed and enhanced in phase 5, includes approximately 130-160 acres of woody vegetation removal, 110 acres of seeding to native grassland plant species, 2 miles of channel enhancement and 1 mile of slough and backwater development and enhancement.
- Figure 8.** Area to be developed and enhanced in phase 6, includes approximately 150-160 acres of woody vegetation removal, 100-120 acres of seeding to native grassland plant species, 1.5 miles of slough and backwater development and enhancement.
- Figure 9.** All areas to be developed and enhanced on the Property.

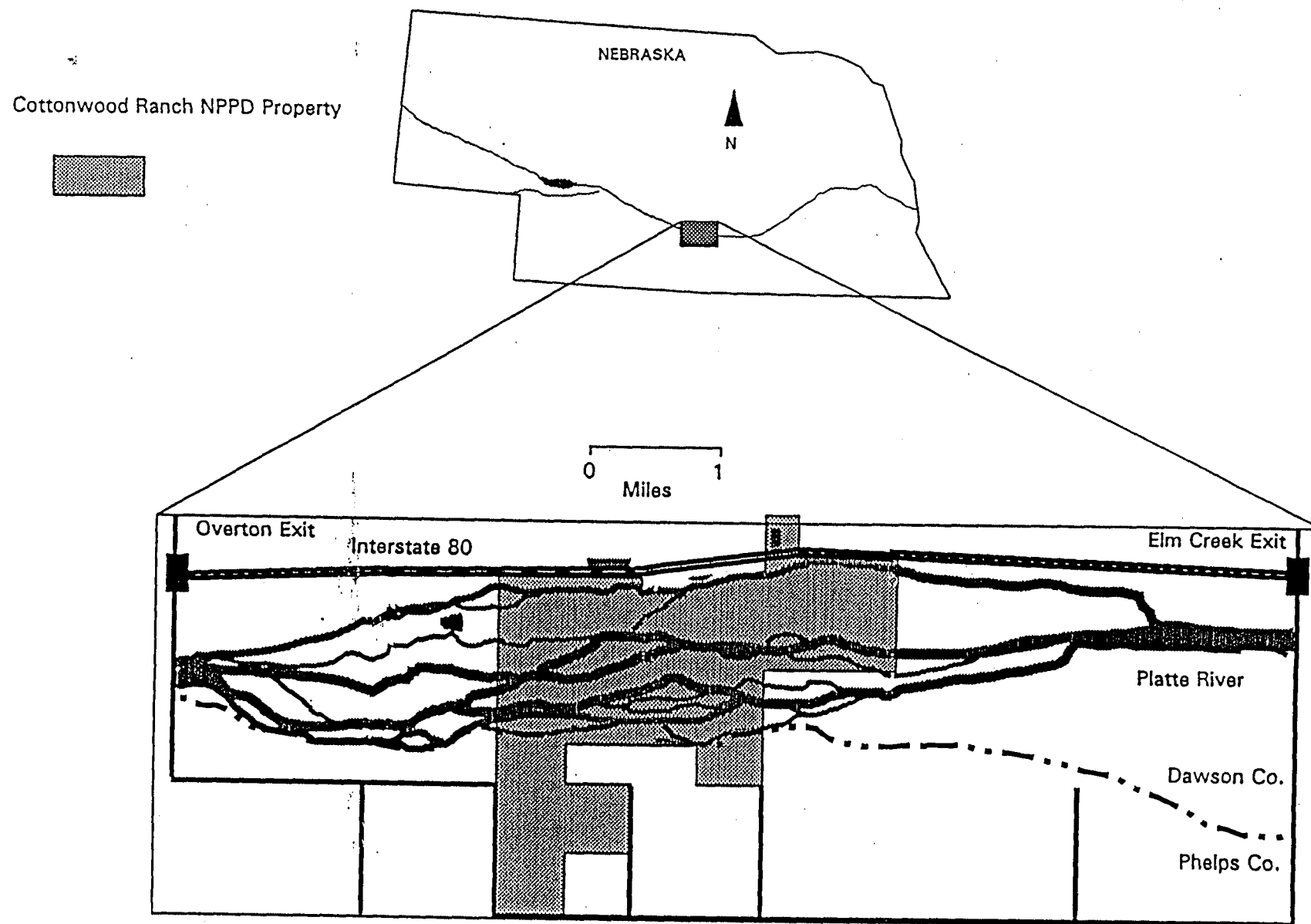
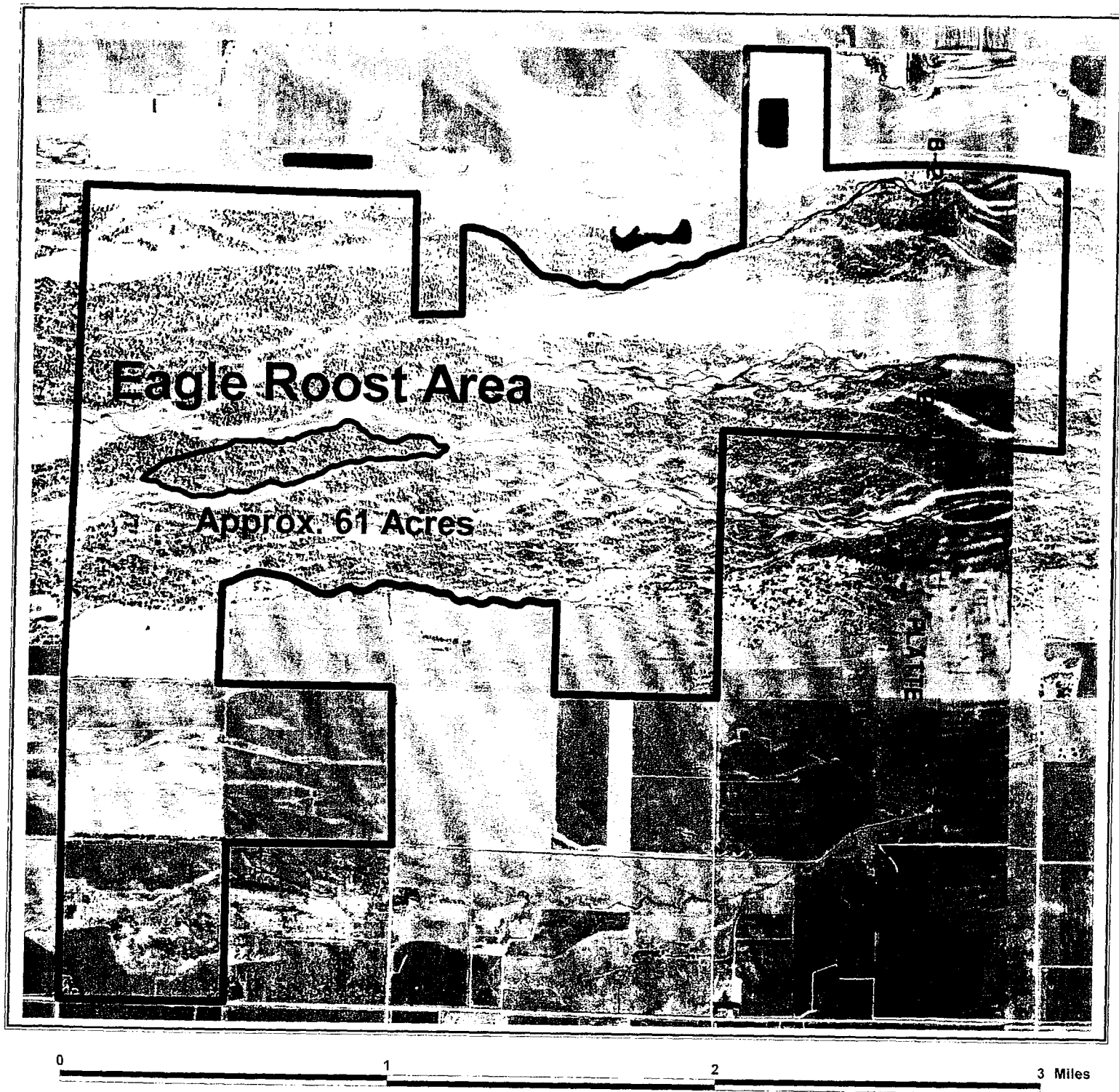
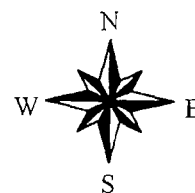


Figure 1. Location of the Cottonwood Ranch Property.



***Cottonwood Ranch
(NPPD)
Eagle Roost Area***

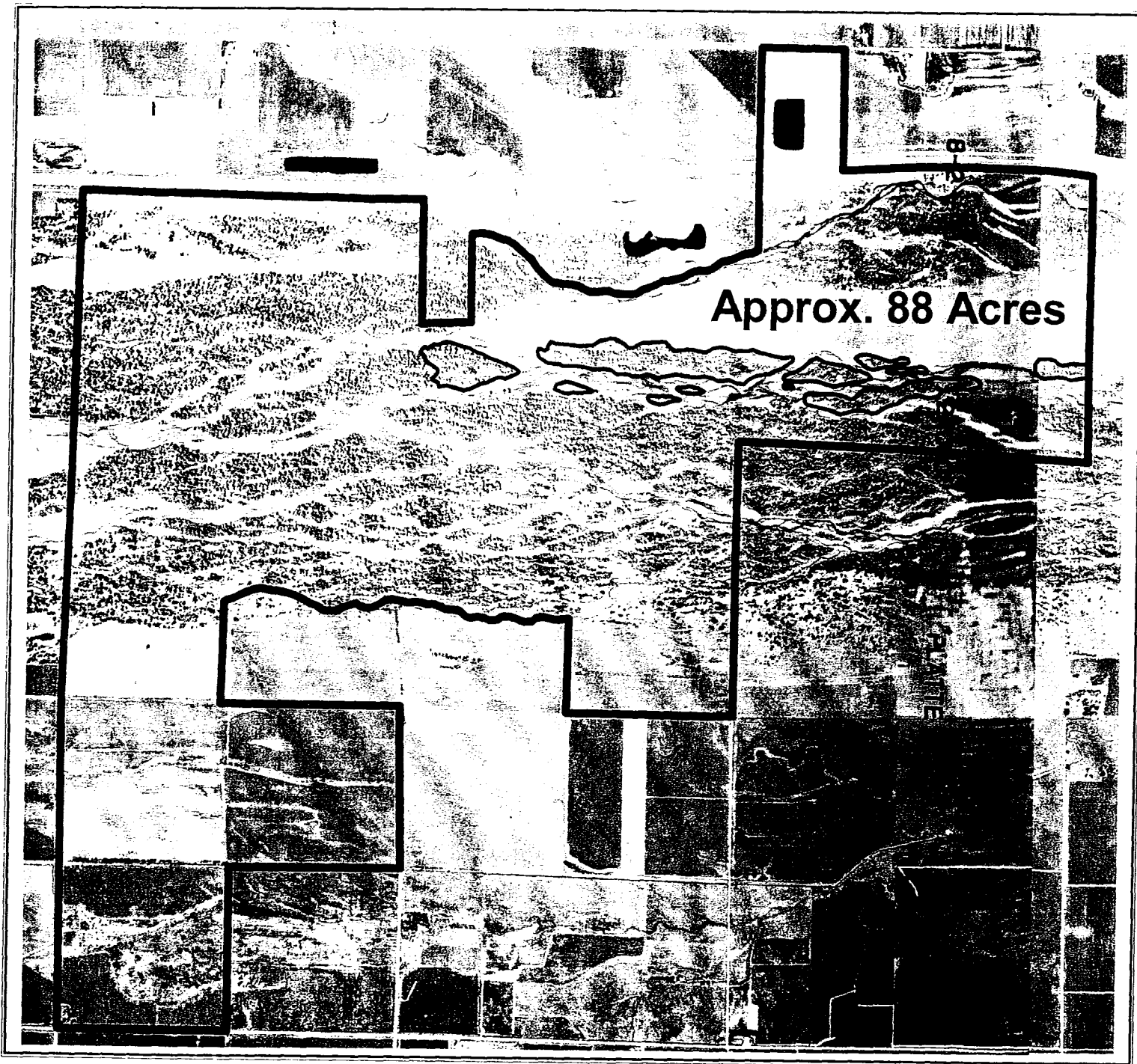


Approximate Property
Boundary

Eagle Roost Area

Map Prepared by LST

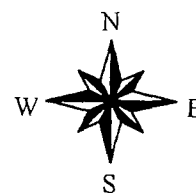
Figure 2





Approx. 88 Acres

0 1 2 3 Miles

***Cottonwood Ranch
(NPPD)
Phase I***

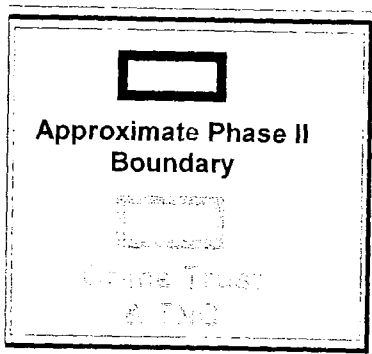
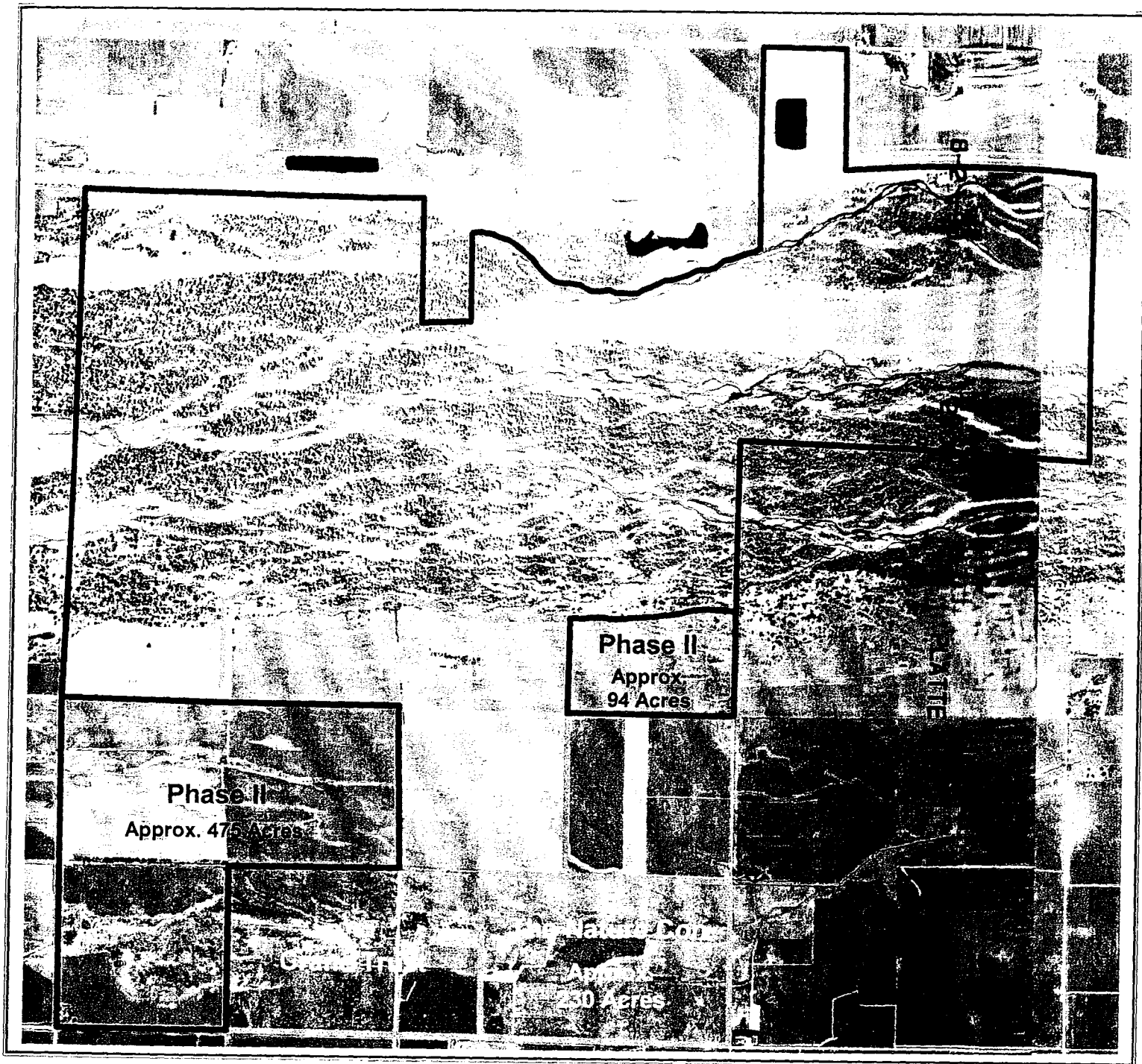



Approximate Property
Boundary

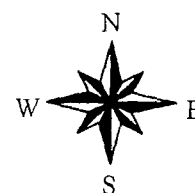

Phase I

Map Prepared by LST

Figure 3

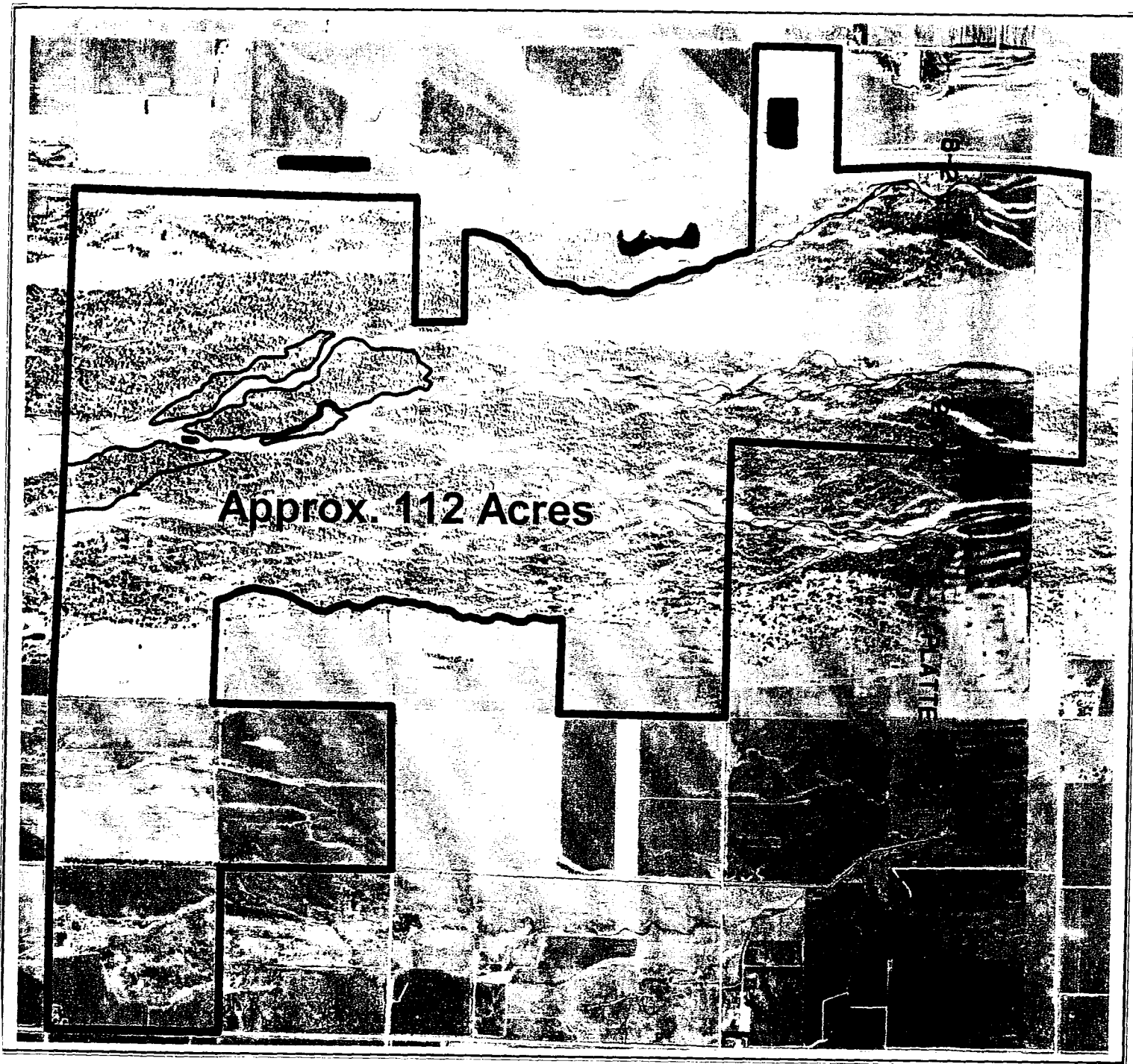


Cottonwood Ranch (NPPD) Phase II



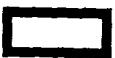
Map Prepared by LST

Figure 4



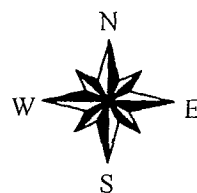
Approx. 112 Acres

0 1 2 3 Miles


Approximate Property
Boundary

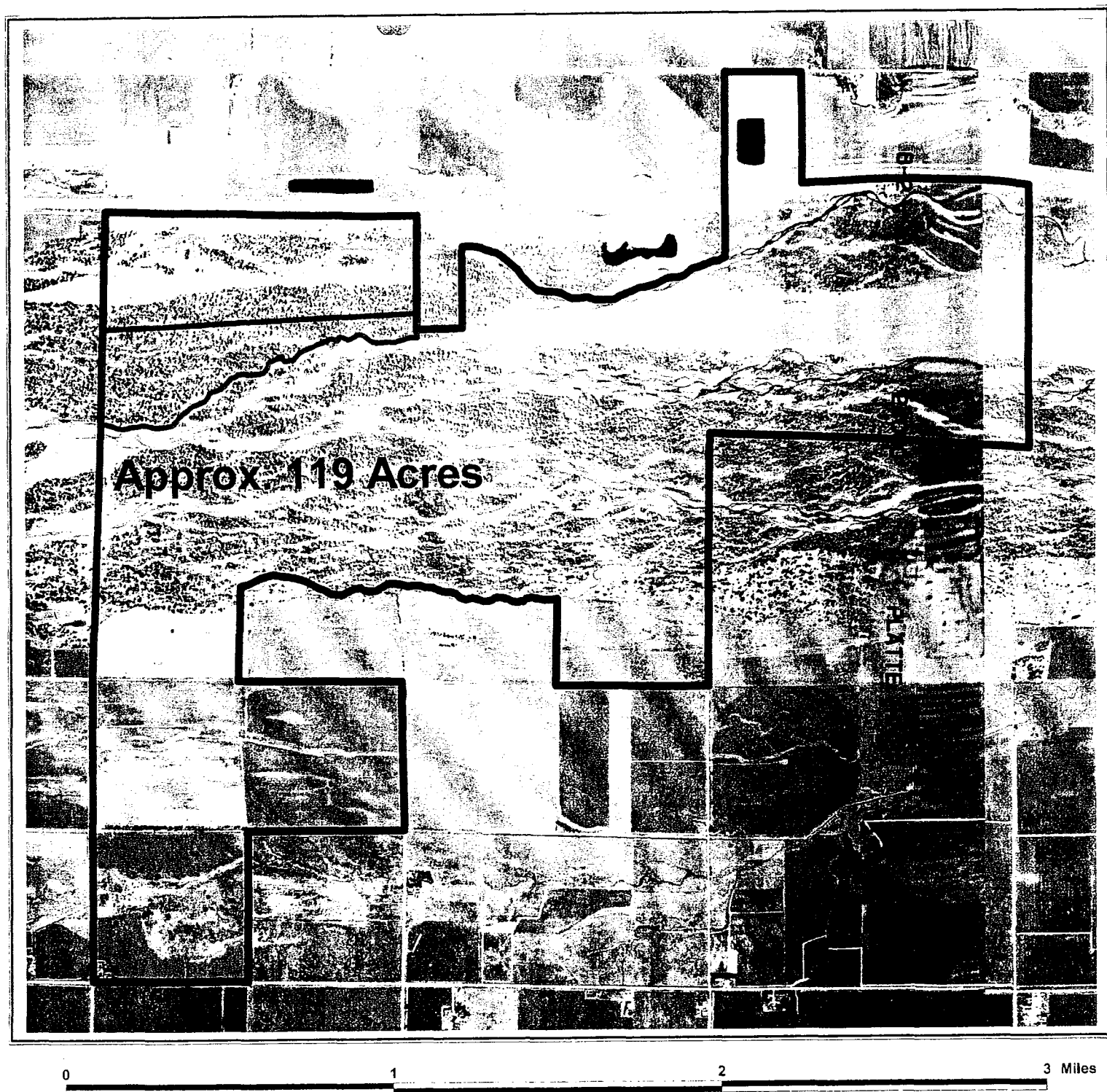

Phase III


Cottonwood Ranch (NPPD) Phase III




Map Prepared by LST

Figure 5



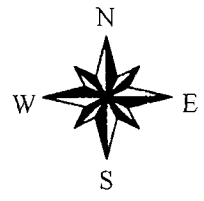


Approximate Property Boundary



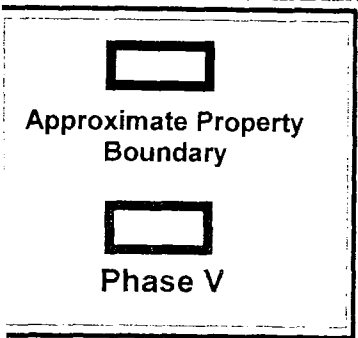
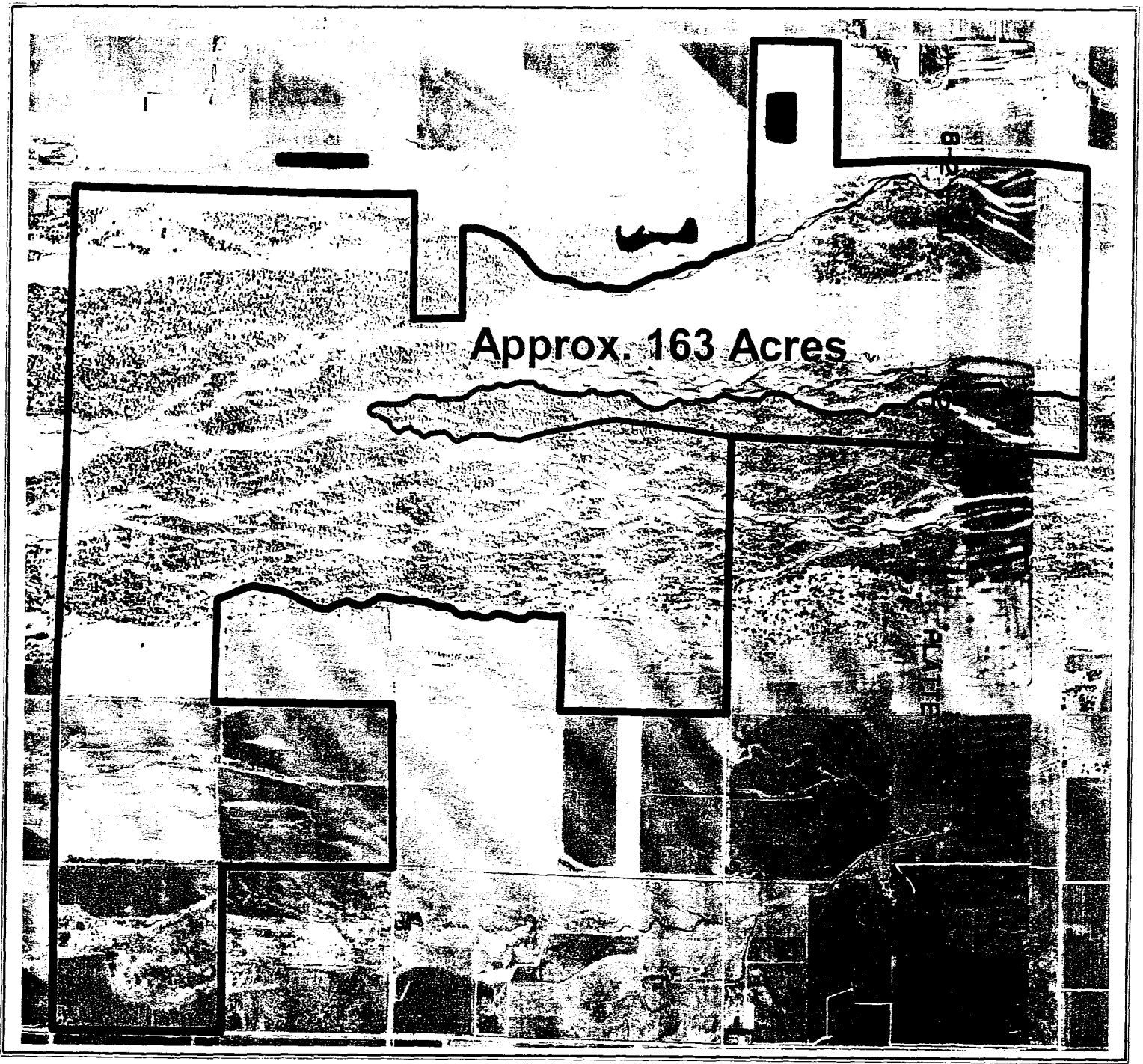
Phase IV

***Cottonwood Ranch
(NPPD)
Phase IV***

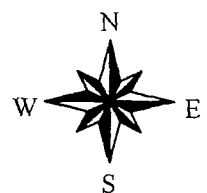


Map Prepared by LST

Figure 6

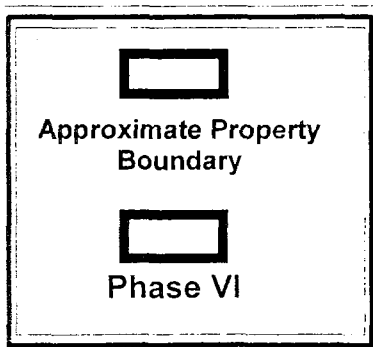
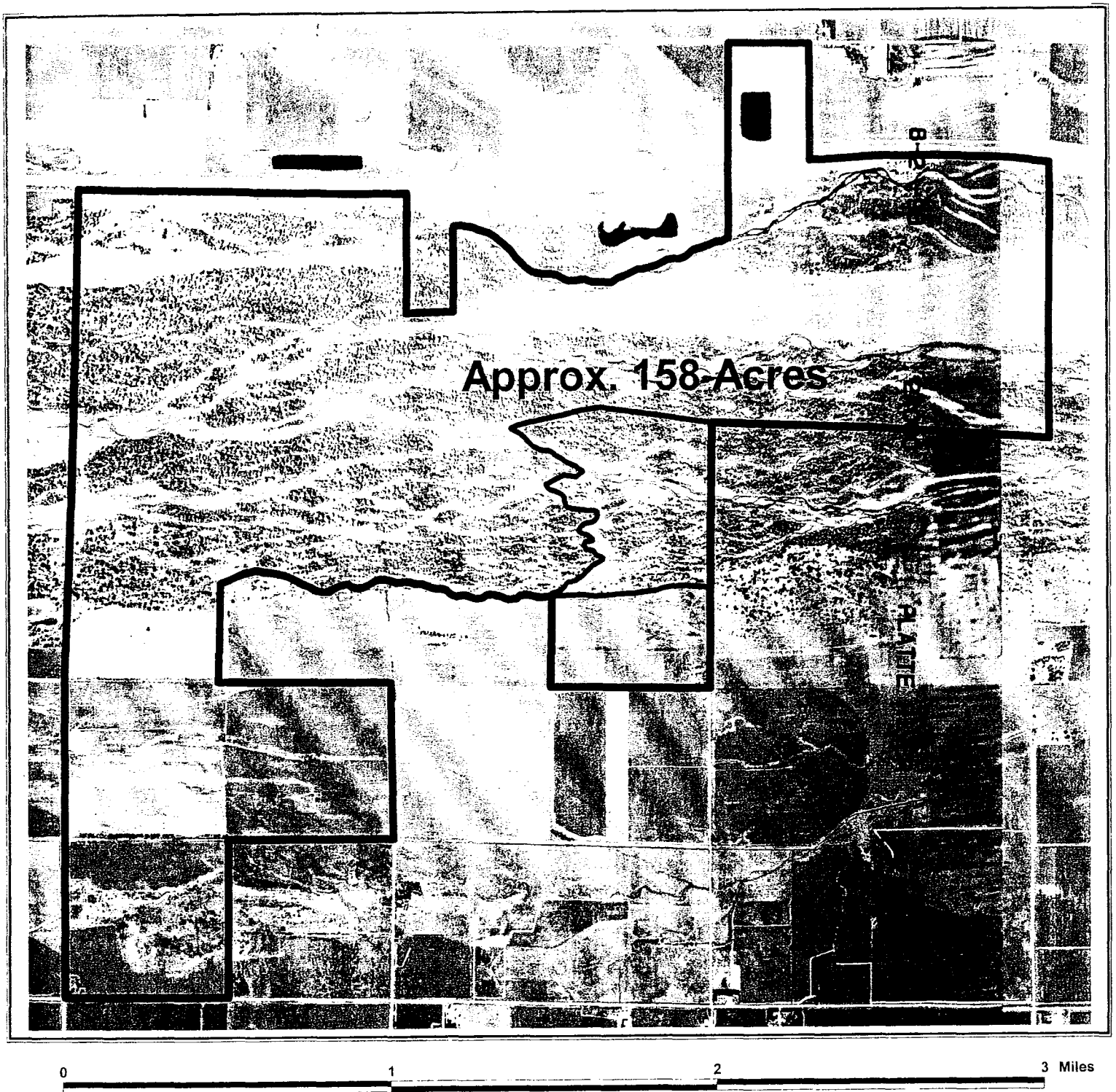


***Cottonwood Ranch
(NPPD)
Phase V***

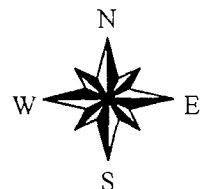


Map Prepared by LST

Figure 7













***Cottonwood Ranch
(NPPD)
Phase VI***



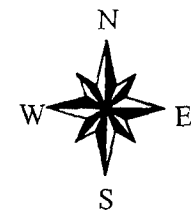
Map Prepared by LST

Figure 8

NPPD Cottonwood Ranch

-  Eagle Roost (61 ac.)
-  Phase I (88 ac.)
-  Phase II (569 ac.)
-  Phase III (112 ac.)
-  Phase IV (199 ac.)
-  Phase V (163 ac.)
-  Phase VI (158 ac.)
-  The Nature Con. (230 ac.)
-  Crane Trust (592 ac.)
-  Ranch Boundary (2675 ac.)

* All Area Acres are Approximate



0 1 2 3 Miles

Appendix A:

Consultation History

NPPD has met with the FWS, NGPC, Central, and Governance Committee representatives several times to formulate a plan for the development and enhancement of the Property.

1. December 2, 1998 - A meeting was held at the FWS Nebraska Field Office in Grand Island to discuss the preliminary thoughts on management of the Property. In attendance were representatives from NPPD, FWS, NGPC, Central, and the Land Committee.
2. February 2, 1999 - Representatives from NPPD, FWS, and NGPC visited the Property for an on-site evaluation and discussion of options.
3. March 1, 1999 - Representatives from NPPD, FWS, and NGPC met at the FWS Nebraska Field Office to further discuss options from the February visit to the Property.
4. March 22, 1999 - Representatives from NPPD, FWS, and NGPC visited the Property for further on-site evaluation, then met at NPPD's office in Kearney to discuss development and enhancement options.
5. April 16, 1999 - A "Draft Development and Enhancement Plan for NPPD's Cottonwood Ranch Property" was submitted to the FWS, NGPC, and Central for review and comment.
6. April 19, 1999 - A "Draft Development and Enhancement Plan for NPPD's Cottonwood Ranch Property" was submitted to the Governance Committee for review and comment.
7. May 12, 1999 - NPPD received written comments on the draft Plan from the Wyoming representative to the Governance Committee. Copies of these comments and response are attached.
8. May 24, 1999 - NPPD received written comments on the draft Plan from the FWS, and Central. Copies of these comments and NPPD's response are attached.
9. June 11, 1999 - A meeting was held at the FWS Nebraska Field Office to discuss comments on the draft Plan. In attendance were representatives from NPPD, FWS, NGPC and Central and Land Committee of the Cooperative Agreement.
10. June 28, 1999 - A revised draft Plan was submitted to the FWS, NGPC, and Central for review and comment.
11. July 9, 1999 - A meeting was held at the FWS Nebraska Field Office to modify revised draft plan. In attendance were representatives from the FWS, NGPC and NPPD.
12. July 29, 1999 - A final Plan is submitted to FERC.

Appendix B:

Written Comments Received on Draft Plan and NPPD Response

COTTONWOOD RANCH PROPERTY COMMENTS

State of Wyoming – Water Development Commission

1. Table 1 of Appendix B to the Cooperative Agreement entitled "Contributions of the States and of the Department of the Interior during the First Increment", denotes that the State of Nebraska received a credit of \$5.3M for the Cottonwood Ranch. The draft plan states that NPPD will spend up to \$1.3M to enhance the property. This infers a credit of \$4.0M for the property value. Apparently, this credit was established during the settlement process during FERC licensing. Is this the understanding of NPPD, the States of Nebraska and Colorado, and the Department of the Interior?

Response: The draft plan does not infer a credit to the state of Nebraska of \$4.0M for making available 2650 acres of land. The \$5.3 million value assigned to NPPD's Cottonwood Ranch Property was an agreed to value by the three states and DOI (see paragraph B, Table 1 of the Cooperative Agreement). The \$1.3 million in development and enhancement cost is also a negotiated price set at \$500 per acre with the understanding that NPPD could ask for full reimbursement from the Governance Committee.

2. The draft plan calls for a six-phased property improvement process with an estimated cost of \$2,133,600, which is \$833,600 over the expenditure obligations of NPPD. Apparently, the draft plan was developed with input from the USFWS and the Nebraska Game and Parks Department.

I want to point out that the Governance Committee/Program has no obligation to participate in the overrun of \$833,600. However, the Governance Committee may decide it is a good investment for the program to financially participate if the enhanced improvements to the Cottonwood Ranch corresponds with the goals of the program.

At this point in time I am not so sure that the goals of the program could not be met with NPPD's \$1.3M. Therefore, the comments on this draft document should not be taken as an implied approval by the Governance Committee or the parties to the Cooperative Agreement that it plans to pay any part of the \$833,600.

NPPD has noted that its \$1.3M can and will be the first money spent to improve the Cottonwood Ranch. Because Nebraska received credit for this \$1.3M, it should be considered the same as program funds. Good business practices would indicate that the Governance Committee should get the maximum credits it can for the \$1.3M before considering any investments over and above that amount on the Cottonwood Ranch. Therefore, the following process should occur:

- a. Develop an improvement program with a budget of \$1.3M that can achieve the maximum acreage credit toward the program goals. This initial improvement program should ultimately result in a defined amount of acreage credit toward the 10,000 acres. The \$1.3M should be used to fund those improvements which result in the most acreage credit within the confines of the Cottonwood Ranch.
- b. Evaluate other improvement opportunities on the Cottonwood Ranch and estimate the costs and associated acreage credits for these opportunities. Then, the Governance Committee can make responsible decisions as to whether or not to invest in additional improvements to the Cottonwood Ranch or to invest in other habitat improvement projects.

Because the habitat improvements and the resulting acreage credits will be an asset of the program, the Technical Committee and the Land Committee should be actively involved, or perhaps take the lead, in implementing the above described two-step process.

Response: As you have stated the draft Plan exceeded NPPD's management obligations by \$833,600. Those costs were rough estimates based on preliminary concepts of the actual work to be done. The final Plan has a cost overrun of zero to \$180,000, which may change based on actual expenditures. The concept of the six phases and enhancements and developments outlined in the Plan were developed in conjunction with the U. S. Fish and Wildlife Service and the Nebraska Game and Parks Commission as a means to

maximize benefit to the target species. NPPD also invited the Land Habitat Criteria sub-committee to attend initial meetings to develop this Plan. It is NPPD's understanding that all three states and the DOI have agreed that all 2,650 will be credited towards the Program goal of 10,000 acres and this Plan has been developed with the target species of the Program as the focal point.

The Plan has been developed with goals of providing habitat for the Program target species and should meet goals of the Program. NPPD feels that there should be representation of the Governance Committee on the Oversight Committee that will design the actual enhancements and developments of the property to insure that all improvements do indeed meet the goals of the Program. NPPD would support the idea that Technical and Land Committees appoint a representative(s) to work with the Oversight Committee to insure that the enhancement and development measures do indeed meet Program goals and have the desired effect.

3. The Governance Committee should be obligated to pay maintenance costs on those acres within the Cottonwood Ranch, which serve to meet the goal of 10,000 acres of habitat. It should not pay for the maintenance of any improvements which may be nice but do not contribute to program goals.

Response: While it has been agreed that approximately 2,650 acres will counted towards Program goals, and the FERC License for Project 1835 indicates that maintenance should be paid for by the Program, it will be the Governance Committee of a Program if one is adopted that will determine what maintenance expenditures will be approved.

Central Nebraska Public Power and Irrigation District

1. On a purely editorial basis, the phrase “design management” is used throughout, and is very confusing, probably because design can be both a noun and a verb, and management can be both a noun and an adjective. If you mean, “develop habitat management procedures” you might consider changing to that phrase, as “design management” sounds most like a team put in place to handle design work.

Response: The plan has been modified to reflect comments.

2. You repeatedly indicate that the Management Oversight Committee (MOC) will be closely involved in moving from this broad plan to implementation of management practices. Instead, in a few places, you assign the types of tasks or decisions typically assigned to the MOC to a smaller group. It is not clear why that would be appropriate. See section 2.0, page 5 (NPPD, FWS, NGPC and the Governance Committee, rather than the entire MOC, get data to “design management, implement monitoring, obtain permits and reduce risk of liability consistent with adaptive management”); page 20 (NPPD, FWS and NGPC alone are involved in development and review of the public use/recreation plan). We suggest you designate the MOC in all cases.

Response: The plan has been modified to reflect comments.

3. In section 2.2 and throughout the plan, you suggest that substantive research and drafting tasks will be carried out by the MOC. E.g., page 7 (“the committee will obtain the needed information”); page 11 (“Management procedures will be developed by the Management Oversight Committee; pages 14, 17 (information on other groundwater studies will be obtained by the MOC); page 19 (the MOC will develop a grazing protocol); page 22 (the MOC will develop a management protocol for grassland, sloughs and backwaters). Aren’t these tasks for NPPD to perform, but with coordination and advice from the MOC, with the goal of achieving consensus and support? It sounds as if other participants in the committee are being asked to contribute work products or in-kind services, something much more substantial than anticipated and which are NPPD’s responsibilities.

Response: NPPD is not suggesting “substantive research and drafting tasks” but rather a compilation of existing data to formulate the proper enhancements and developments on the property. While NPPD will undertake these tasks where logical, much of this information resides within the agencies that make up the MOC and thus could be provided with little or no cost from that agency. NPPD does envision though the MOC developing specific development and enhancement measures and utilizing tools such as grazing. The plan has been modified to better reflect how the MOC (Enhancement and Development Oversight Committee) responsibilities and function.

4. On page 11, you state “All parties agree that the development and enhancement measures outlined in this plan fulfill obligations for habitat enhancement by NPPD.” One problem with this statement is that the plan includes more measures than NPPD, in fact, intends to do. Another is that the details, which have yet to be developed, are subject to modification through adaptive management practices. The statement suggests that even if you spend \$1.3 million, unless all measures in the plan are complete, you have not fulfilled your obligations. We doubt this is what you intend. You have raised the specter of the BO and appear to be attempting to answer the question of whether the amount of enhancement you are proposing is enough. This seems unnecessary in the plan. FWS should be willing to affirm in a letter whether or not you have satisfied their concerns.

Response: The Plan has been modified to reflect the comments.

5. On page 12, you define “active channel” as having flowing water at “normal” river stages. In the next sentence, you indicate you may design active channel for only “high flow events.” This seems contradictory.

Response: Plan has been modified to reflect changes.

6. On page 14, you indicate that NPPD, FWS and NGPC agree that management of backwaters, sloughs and the adjacent uplands will provide habitat for the target species, and will replace the need for wet meadows adjacent

to the channel. Is this “locked in” or subject to concurrence by the Program Governance Committee in the future? What if this isn’t consistent with the Program’s position? Does the Governance Committee have a view now? Isn’t this one of the things that might be left to conclude with review and make subject to adaptive management?

Response: NPPD can not answer these questions at this time. Because of this the plan has been modified to reflect the adaptive management aspect of backwater and slough enhancement and development.

7. On page 18, section .2 on bald eagles, you state “NPPD will be relieved of any responsibility to mitigate for management actions developed under this plan which may adversely effect (sic) eagle use of the property.” While we certainly agree with the position that no one should have to mitigate for mitigation, it seems unlikely that FERC will be able to approve such a broadly worded statement about potential impacts on a listed species, particularly since the management actions referred to have yet to be identified. Perhaps the same end can be accomplished by including a provision that as management procedures are developed and reviewed in the MOC, the potential for impacts on eagle roost and perch sites will be considered and minimized to the extent possible. Then you can say something to the effect that, while no mitigation is expected to be needed, if it were sought, it would count toward your cost cap.

Response: The plan has been modified to reflect the comment.

8. On page 19 you indicate that farming practices will remain unchanged, and state the number of acres of corn and alfalfa that are to be approved, subject to wetland and swale exceptions. This appears to lock these farming practices in stone as useful to whooping cranes. It also appears to contradict your statement on page 23 that agriculture and grazing are management tools and their implementation may be altered in subsequent phases.

Response: The plan has been modified to better define how agriculture will be used.

9. On page 36, in your summary you indicate that tern and plover nesting habitat will be capable of being maintained for 40 years and will be protected from predators. These strong commitments to achieve particular results appear at odds with the more realistic discussions earlier in the text, and should probably be edited. First, in section 3.2 you acknowledge that habitat islands may erode or wash out, and establish guidelines for repair and replacement. Second, section 3.2 appears to address the question of tern and plover habitat predator barriers such as electric fencing by designing habitat so their use is possible, but not necessarily mandatory. This appears appropriate as predator barriers are currently favored by some biologists but others do not believe they are effective or may even be counter to the concept of developing “sustainable habitat”. Regardless, that type of management may be evaluated through the Program’s adaptive management practices. Habitat may or may not ultimately include predator barriers, and if it does not, it will be because, after trying them, the Program concluded that a commitment that nesting habitat “will be protected from predators” is not practical or achievable.

Response: The plan has been modified to reflect the first portion of this comment. In regards to predator barriers NPPD sees no difference in providing an artificial flow regime or erecting fencing. The use of predator control will be decided by the MOC and evaluated through the monitoring program. It is NPPD’s belief that the entire concept of developing “sustainable habitat” needs to be evaluated with an adaptive management approach and that this is best handled by the Proposed Program if they assume responsibility for maintenance of the property.

United States Department of the Interior – Fish and Wildlife Service

In general, this draft Plan represents a positive step toward satisfying the requirements of License Article 407, as it includes most of the landscape measures that have been discussed as components of a development and enhancement plan for the Cottonwood Ranch. However, the Service needs further clarification regarding a lot of the information in the Plan. For example, the Service would like to see the following information in a revised draft of the Plan: (a) how the acreage estimates were calculated; (b) a more detailed map showing the acreage estimates for each of the phases and a better delineation of the different components of each phase; (c) the basis for each of the cost estimates for each category listed for each phase; and (d) more detail and specifics regarding what areas south of the river are being proposed for wetland and grassland development activities.

In addition, there are numerous items or categories included as part of each proposed phase in the Plan that are counted toward the \$1.3 million cap which NPPD is required to spend on development and enhancement measures per License Article 407 that the Service does not agree with or needs further explanation. For example, there is \$50,000 included as a cost for Phases 1-4 for obtaining baseline habitat information. Pursuant to NPPD's new License Article 405, NPPD together with Central Nebraska Public Power and Irrigation District are required to spend up to \$100,000 per year to monitor wildlife, including endangered species and their habitats, and to collect habitat baseline information on least terns, piping plovers, fish, vegetation and channel configuration changes, and whooping crane use, of the lands acquired and developed pursuant to their new licenses. The Service does not believe that the cost of collecting habitat baseline information should be included as part of the cost of development and enhancement measures pursuant to License Article 407. The Service further believes a revised draft Plan should include an explanation of and justification for the following cost items: (a) \$144,000 estimate for "Interest During Construction"; (b) \$18,000 estimate for "Bid Letting and Contract Oversight"; and (c) \$33,800 estimate for "Administration and General." All such costs appear to be excessive and may not be warranted.

Furthermore, even though the Service agrees, for the most part, with the areas delineated as areas where trees and other undesirable woody vegetation will be cleared, we do not agree with the acreage calculation for those areas and thus the total estimated cost to clear the areas. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. For example, the draft Plan indicates that approximately 820 acres of riparian cottonwood forest will be cleared. However, the Service's estimate for the same area is closer to 600 acres. Therefore, we believe a revised draft Plan should include more detailed information on how the acreage estimates were calculated. The amount of acres to be clear has a significant effect on the total cost of each phase of the plan. The difference between clearing 800 acres versus 600 acres at a cost of approximately \$900 per acre is \$180,000. The total cost estimate for grassland plantings is also influenced by these acreage estimates.

The draft Plan also includes costs that are associated with the maintenance of the project site after the development measures have been completed. The total cost for the proposed maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) is approximately \$200,000 and should not be included as part of the cost for development and enhancement measures.

In light of the above concerns regarding acreage estimates and other items that the Service believes should not be included as part of the cost for implementing the Plan, the Service believes that the majority, if not all, of the actual development and enhancement measures can be accomplished by NPPD at a cost not to exceed \$1.3 million. The Service also believes that the proposed time schedule for completing the development and enhancement measures is excessive and recommends that the target date for completion of all phases (1-6) should not exceed 4 years from the date on which FERC approves the Plan.

The draft Plan focuses on the benefits to the target species and does not adequately address the potential benefits of these activities to the Platte River ecosystem as a whole and the wide variety of other species (e.g., sandhill cranes, migratory waterfowl, shorebirds, wading birds, fish, etc.) that will benefit from this effort. The summary section of the Plan should be revised to address these additional benefits as well.

There are also numerous references to "management procedures" and the "Management Oversight Committee." Management, maintenance, development, and enhancement are often confused. The Service recommends that this Plan focus on the initial development and enhancement of the Cottonwood Ranch and that NPPD should try to avoid the use of "management" and "maintenance" in the Plan. The Service further recommends that the Management Oversight Committee be changed to Development and Enhancement Oversight Committee (Oversight Committee) and management procedures be renamed development and enhancement procedures to avoid confusion.

Furthermore, the Service recommends that representatives from the conservation organizations [i.e., Platte River Whooping Crane Maintenance Trust (Trust) and The Nature Conservancy (TNC)] participate on the Oversight Committee due to their experience and knowledge regarding the development and enhancement of in-channel, wet meadow and grassland habitats and due to the location of the Cottonwood Ranch in relation to lands owned and managed by these organizations. The inclusion of this recommendation into the Plan would help facilitate the development and enhancement of the project area as a single unit. This recommendation is also consistent with the requirements of Article 407 and the Agreement in Principle dated June 30, 1997.

It is also imperative that concurrence from the Service and NGPC be a requirement for any land development and enhancement decision made by the Oversight Committee before any resultant action is taken by NPPD. Article 407 requires concurrence by the Service of the Plan and we are not waving our right by agreeing that an Oversight Committee be formed to coordinate and review specific development and enhancement action items.

Response: NPPD has worked extensively with the FWS to address the above issues and believes that the concerns and issues have been resolved and that the final Plan reflects this.

SPECIFIC COMMENTS BY SECTION

Title

On page 2 of the Plan, change the title from "Management Plan for NPPD's Cottonwood Ranch Property" to "Development and Enhancement Plan for NPPD's Cottonwood Ranch Property."

Response: The Plan has been modified to reflect the comment.

1.0 Background and 1.1 Development and Enhancement Plan

These two sections should be combined into one section due to similar language included in both sections.

We recommend that the second sentence of the first paragraph be changed to include section 1.1. For example, the second sentence could start off with "License Article 407 for Project 1835 states...", followed by the italicized text in section 1.1. and delete the rest of the first paragraph on page 2.

Response: The Plan has been modified to reflect the comment.

Page 2, second paragraph, first sentence: Add "As required by Article 407," to the beginning of the first sentence and delete "which meets the qualifications, noted above."

Response: The Plan has been modified to reflect the comment.

Page 2, second paragraph, sixth sentence: Add "A portion of this property" to the beginning of the sixth sentence.

Response: The Plan has been modified to reflect the comment.

Page 2, second paragraph, last sentence: Add the words "develop and" between the words "to" and "enhance this property."

Response: The Plan has been modified to reflect the comment.

Page 3, first full paragraph, first sentence: Delete the first sentence and replace with, "To facilitate the development and enhancement of Cottonwood Ranch for the target species, NPPD in consultation with the U.S. Fish and Wildlife Service (FWS), Nebraska Game and Parks Commission (NGPC), the Central Nebraska Public Power and Irrigation District (Central) and the Governance Committee have developed this Plan per License Article 407."

Response: The Plan has been modified to reflect the comment.

Page 3, first full paragraph, third sentence: Delete the word "Management" and replace with, "Development and enhancement measures."

Response: The Plan has been modified to reflect the comment.

Page 3, first full paragraph, fourth sentence: Replace the fourth sentence with the following: "The Plan specifies development and enhancement objectives but does not specifically state the measures taken to achieve those objectives."

Response: The Plan has been modified to reflect the comment.

Page 3, first full paragraph, last sentence: Replace "Specific management actions" with "Specific measures to be taken."

Response: The Plan has been modified to reflect the comment.

Page 3, first full paragraph: Add to the end of the first full paragraph, "This Plan only addresses the initial development and enhancement of the Cottonwood Ranch property and does not address management and maintenance." Under License Article 407, NPPD is responsible for maintenance of the project site and the development of a maintenance plan if it becomes clear that the Program is unwilling or unable to provide maintenance of these lands. The cost of maintenance activities should not be included as part of NPPD's \$1.3 million cap for development and enhancement measures.

Response: The Plan has been modified to reflect the comment.

Page 3, last paragraph: Delete entire paragraph. The first sentence would be included in the recommended changes to the previous paragraph and the last two sentences are inappropriate and add no value to this Plan.

Response: The Plan has been modified to reflect the desired changes, however NPPD feels that the development and enhancement of the Cottonwood Ranch property needs to be scientifically evaluated to insure that they are indeed reasonable measures to be taken to insure recovery of the target species and have a true cause and effect relationship to that recovery.

2.0 Development and Enhancement Implementation

This section should begin with the language on the bottom half of the paragraph on page 6 which begins as follows, "Developments and enhancements to the property will be completed through a phased approach, ..."

Response: The Plan has been modified to reflect the comment.

Page 5, first paragraph, first sentence: Replace the words "Development and enhancements" with "Development and enhancement phases."

Response: The Plan has been modified to reflect the comment.

Page 6, first sentence: Replace "management" with "measures."

Response: The Plan has been modified to reflect the comment.

Page 6, second sentence: Replace "management options" with "development and enhancement options."

Response: The Plan has been modified to reflect the comment.

Page 6, fourth sentence: The Plan states that, "Development and enhancement of habitat will be completed within 6 years of approval of this Plan." The Service believes that the time schedule for completion of the development and enhancement measures is too long and believes that the implementation of this Plan can be accomplished within 4 years from the date of FERC approval.

Response: NPPD feels that 4 years would be an extremely ambitious schedule to achieve. NPPD will agree to initiate development and enhancements upon FERC approval of this plan and work towards achieving completion within 4 years. Although it is NPPD's belief that such a tight time schedule does not allow for adaptive management or time to respond to unforeseen complications, equipment problems etc.. The Plan has been modified to have completion time of 4 to 6 years.

2.1 Management Oversight Committee

Throughout this section and the rest of the plan, replace "Management Oversight Committee" with "Development and Enhancement Oversight Committee."

Response: The Plan has been modified to reflect the comment.

Page 6, last paragraph, first sentence: Replace, "... to design specific management actions." with "... to identify, design, and recommend specific measures to complete the development and enhancement of each phase of this Plan."

Response: The Plan has been modified to reflect the comment.

Page 6, last paragraph, first sentence: The Service recommends that representatives from the conservation organizations (i.e., Trust and TNC) be invited to participate on the Oversight Committee due to their experience and knowledge regarding the development and enhancement of in-channel, wet meadow and grassland habitats and due to the location of the Cottonwood Ranch in relation to lands owned and managed by these organizations.

Response: The Oversight Committee will be consisting of representatives from the entities specifically listed in Article 407. If the Service or any other representative on the Oversight Committee desire representatives from conservation organizations or other expertise to attend the meetings they may ask them to do so at their own expense. The Plan has been modified to reflect this response.

Page 6, last paragraph: Combine the last two sentences into one sentence. For example the last half of the sentence could read "... to insure that the developments and enhancements of the property for the target species are being completed in a timing [sic] manner."

Response: The Plan has been modified to reflect the comment.

2.2 Selection of Management Actions

Change the heading from "Selection of Management Actions" to "Selection of Development and Enhancement Measures."

Response: The Plan has been modified to reflect the comment.

Change "Management Procedures" to "Development and Enhancement Procedures" throughout the Plan.

Response: The Plan has been modified to reflect the comment.

Page 7, middle of the paragraph, fourth sentence: Reference is made to the need of consensus of the Oversight Committee to achieve developments and enhancements. Additional clarification regarding the composition of the Oversight Committee and the roles and responsibilities of each party needs to be discussed. It is also imperative that concurrence from the Service and NGPC be a requirement for any land development and enhancement decision made by the Oversight Committee before any action is taken by NPPD. Specific actions recommended by the Service and the NGPC should not be ignored or not implemented because there is not consensus by the entire Oversight Committee.

Response: The purpose of the Oversight Committee is to insure that all enhancement and development measures, procedures and objectives are providing for improvement of the property for the target species while minimizing any negative impacts. The Service and the NGPC are part of this process and bring an invaluable knowledge base to the group. The Oversight Committee needs to work as a group with a common goal of improving conditions for the target species and come to agreement on issues. If this is not possible then each member of the Committee has the option of deferring their opinion to higher levels within their respective agencies or to FERC. The Plan has been modified to state that representative from the FWS, NGPC and NPPD must concur on all methodologies before implementation.

2.3 Annual Reporting

Page 8, first paragraph, first sentence: Replace "management" with "development and enhancement."

Response: The Plan has been modified to reflect the comment.

Page 8, first paragraph, second sentence: Delete, "from Section 4."

Response: The Plan has been modified to reflect the comment.

Page 8, first paragraph, third sentence: Replace the words "management procedures for" with "description of."

Response: The Plan has been modified to reflect the comment.

Page 8, first paragraph, fourth sentence: Replace the words "Because most management activities" with "Because it is anticipated that most development and enhancement measures" and add the words "late summer" between the words "the" and "fall."

Response: The Plan has been modified to reflect the comment.

3.0 Management to Implement Development and Enhancement

Change the heading to "Development and Enhancement Objectives."

Response: The Plan has been modified to reflect the comment.

3.1 Baseline Conditions and Monitoring

In the draft Plan there is \$50,000 included as a cost for Phases 1-4 for obtaining baseline habitat information. Pursuant to NPPD's new License Article 405, NPPD together with Central Nebraska Public Power and Irrigation District are required to spend up to \$100,000 per year to monitor wildlife including endangered species and their habitat and to collect habitat baseline information on least terns, piping plovers, fish, vegetation and channel configuration changes, and whooping crane use, of the lands acquired and developed pursuant to their new licenses. The Service does not believe that the cost of collecting habitat baseline information should be included as part of the cost of development and enhancement measures pursuant to License Article 407 and should not count toward the \$1.3 million cap for development and enhancement measures.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 9, first paragraph, second sentence: Replace, "Management activities to achieve development and enhancement objectives will..." with "Development and enhancement measures will ..."

Response: The Plan has been modified to reflect the comment.

3.2 Least Tern and Piping Plover Habitat

Page 9, last paragraph, third sentence: Delete this sentence. Under Article 407, NPPD is responsible for developing least tern and piping plover nesting habitat on the project site and the maintenance of this habitat if the Program does not implement a maintenance program.

Response: All reference to maintenance has been removed from the Plan.

Page 9, last paragraph, last sentence: Add the words "if deemed necessary." to the end of this sentence.

Response: The Plan has been modified to reflect the comment.

Page 10, first paragraph, second sentence: Replace the word "created" with either "developed" or "restored."

Response: The word created has been replaced with developed as a matter of semantics. NPPD is unaware of any documented nesting on this property and would appreciate any information that the FWS may have on historical nesting on the Property that would justify the use of the word restored.

Page 10, second paragraph: Delete and replace the entire second paragraph with "This habitat area will be available for use by least terns and piping plovers within 18 months of approval of this Plan by FERC. If permits are required, the development of this habitat area will not be initiated until the necessary permits have been obtained. Application for permits will be filed within 60 days of FERC approval of this Plan."

Response: The Plan has been modified to reflect the comment for a time period of 90 days which the FWS agreed to at the meeting in Grand Island on June 11, 1999.

3.3 Channel Enhancements

Change heading to "Channel Developments and Enhancements."

Response: The Plan has been modified to reflect the comment.

Page 11, first paragraph, third sentence: Replace "... a general goal of channel enhancement." with "... a general goal for channel development and enhancement activities."

Response: The Plan has been modified to reflect the comment.

Page 11, first paragraph: Delete the last two sentences beginning with "The FWS, NGPC, and NPPD ..." and ending with "... for habitat enhancements by NPPD."

Response: The Plan has been modified to reflect the comment.

Page 11, second paragraph, fourth sentence: Delete, "be required to." There is also reference to the removal of approximately 820 acres of riparian cottonwood forest. The Service agrees, for the most part, with the areas delineated as areas where trees and other undesirable woody vegetation will need to be cleared; however, we do not agree with the acreage calculation for those areas. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. Therefore, we would like a more detailed look at how the acreage estimates were calculated and more detailed maps included in the Plan delineating the areas to be cleared for each phase of work to be accomplished.

Response: A better estimate of acreage has been obtained using standard GIS technology.

Page 11, second paragraph, fifth sentence: Delete and replace with "Development and enhancement procedures will be developed by the Oversight Committee to achieve the desired channel developments and enhancements."

Response: The Plan has been modified to reflect the comment.

Page 11, second paragraph, last sentence: Treatment of noxious weeds is a maintenance cost and should not be included as part of NPPD's \$1.3 million cap.

Response: Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 12, first full paragraph, second sentence: Add, "if agreed to by the FWS and NGPC." at the end of the sentence.

Response: The Plan has been modified to reflect comment.

Page 12, first full paragraph, third sentence: Delete and replace with, "Most of the clearing of woody vegetation will be done between July 15 and February 15." Construction during these time periods will minimize or avoid potential impacts to migratory birds.

Response: The Plan has been modified to reflect the comment.

Page 12, first full paragraph, fourth sentence: Not all of the areas that are cleared of woody vegetation will require reseeded. Some of the areas will revegetate naturally.

Response: The Plan has been modified to reflect the comment.

Page 12, first full paragraph: Add the following sentence to the end of the paragraph: "Reshaping of the banks and potential widening of the channels in selected areas will be considered by the Oversight Committee for each phase of the Plan."

Response: The Plan has been modified to reflect the comment.

Page 12, second full paragraph: This paragraph appears to be more of a monitoring issue. The Development and Enhancement Oversight Committee could make recommendations to the Monitoring Oversight Committee regarding who studies what, when, and where, but it is imperative that the Cottonwood Ranch be restored to provide habitat for least terns, piping plovers, and whooping cranes. If Cottonwood Ranch cannot be restored for the benefit of these species, then it does not meet NPPD's License Article 407 requirements.

Response: The FWS seems to be implying that Article 407 requires some kind of measurement of benefit or use of the property by least terns, piping plovers and whooping cranes for NPPD to have fulfilled the license article. This article requires that NPPD provide to the Program approximately 2,650 contiguous acres of land between the J-2 Return and Elm Creek and spend up to \$1.3 million dollars to expedite the initial development and enhancement of that property. As per the Article 407 all development and enhancement of that property is being done in consultation with and concurrence by the FWS and NGPC. The existing Plan outlines a very aggressive schedule for development and enhancement of the property in a manner which the FWS, NGPC and NPPD have agreed based upon current knowledge will provide benefit to the target species. However, if the target species fail to utilize the Property in the expected manner NPPD should be held no more responsible than the FWS and NGPC who helped develop this plan.

Page 13, first paragraph, last sentence: Replace with, "Channel development and enhancement measures will commence when a procedure has been recommended by the Oversight Committee and approved by the FWS and NGPC and all permits are acquired."

Response: The Plan has been modified to reflect the comment.

3.4 Wet Meadow, Slough and Backwater Enhancement/Creation/restoration adjacent to Channel

Page 13, Objective: Add the words "Develop and" to the beginning of the sentence.

Response: The Plan has been modified to reflect the comment.

Page 14, first paragraph, first sentence: Replace "during channel enhancements activities listed in Section 3.3." with "during the different phases of this Plan."

Response: The Plan has been modified to reflect the comment.

Page 14, first paragraph, second sentence: Add "least terns, and piping plovers, and will provide benefits to numerous other native fish and wildlife species."

Response: All reference of the impacts of this Plan to species other than target species has been removed.

Page 14, first paragraph, third sentence: Add "and active river channels," to the end of the sentence.

Response: The Plan has been modified to reflect the comment.

Page 14, second paragraph, first sentence: Delete "and will replace the need for wet meadows adjacent to the channel."

Response: The Plan has been modified to reflect the comment.

Page 14, second paragraph, second sentence: Add the word "may" between "but" and "provide."

Response: The Plan has been modified to reflect the comment.

Page 15, first paragraph, last sentence: Delete "Each backwater will have a wetted width of at least 50 feet with gradually sloping banks." The dimensions of the backwater areas will be determined prior to construction and will vary from site to site depending on present landscape features and other factors.

Response: The Plan has been modified to reflect the comment.

Page 15, second paragraph, last two sentences: Delete. The dimensions and construction criteria for backwaters and sloughs will be determined prior to construction and will vary from site to site depending on present landscape features and other factors.

Response: The Plan has been modified to reflect the comment.

Page 15, after second paragraph: Add "In addition to providing habitat for the target species, the development and enhancement of backwaters and sloughs will contribute toward the restoration of the Platte River ecosystem which is relied upon by numerous fish and wildlife species."

Response: All reference of the impacts of this Plan to species other than target species has been removed.

3.5 Grassland, Wetland and Meadow Enhancement/Creation/Restoration Away from Channel Areas

Page 16: Delete the word "Creation" from the heading and the objective statement.

Response: All reference of the impacts of this Plan to species other than target species has been removed.

Page 16: Delete the word "Critical" from the Trust's name.

Response: The Plan has been modified to reflect the comment.

Page 17, first full paragraph, first sentence: Not all of the areas modified will need to be re-seeded. Many wetland areas will have a sufficient seed bank to revegetate on their own. In addition, the Service does not agree with the second sentence which requires wetlands to be inoculated with sediment from nearby wetlands. Inoculating areas with sediment is usually only done when you are creating a wetland.

Response: The Plan has been modified to reflect the comment.

Page 17, second full paragraph: The installation of groundwater monitoring wells and groundwater studies should be included as part of the cost NPPD is required to spend on monitoring efforts under license Article 405, not Article 407.

Response: The Plan has been modified to reflect the comment.

3.6 Bald Eagle Perch and Roost Sites

Page 18, first paragraph: Delete first paragraph under section 3.6 and start this section with the second paragraph. In addition, add the following sentence at the end of the second paragraph. "In addition, on other areas scheduled to be cleared of trees and other undesirable woody vegetation, the Service and NGPC, in coordination with NPPD, will jointly identify trees that should be left standing as bald eagle perch and roost sites before the implementation of each phase."

Response: The Plan has been modified to reflect the comment.

3.7 Agricultural Uses

This entire section needs to be revisited and revised. The Service has not agreed that, "Farming practices will remain as they exist at the current time."

Response: The Plan has been modified to reflect the comment.

4.0 Management Phases

Rename heading to "Development and Enhancement Phases."

Response: The Plan has been modified to reflect the comment.

Page 21, first paragraph under section 4.0, last sentence: Change "will" to "may" and capitalize "program."

Response: The Plan has been modified to reflect the comment.

4.1 Phase 1 (Year 1-2)

Page 21, first paragraph under section 4.1, second sentence: Change to "Application for permits will be submitted within 60 days of FERC approval of this plan."

Response: The Plan has been modified to reflect the comment for a time period of 90 days which the FWS agreed to at the meeting in Grand Island on June 11, 1999.

Page 2.1, last paragraph: Insert at the end of the paragraph "Development and enhancement measures for the different phases that do not require a permit will not be delayed while processing permits for other components of the project."

Response: The Plan has been modified to reflect the comment.

Page 22, second paragraph: Change "Commission" to "FERC."

Response: The Plan has been modified to reflect the comment.

Page 22, third paragraph, second sentence: Replace "except known eagle perch sites," with "except those identified by the Service and NGPC."

Response: The Plan has been modified to reflect the comment.

Page 22, third paragraph, third sentence: The estimate of 120 acres of riparian forest to be cleared and 100 acres to be reseeded seems high.

Response: The Plan has been modified to reflect the comment.

Page 24, Cost Estimate of Phase 1: The Service would like to have further information or clarification included within a revised draft version of the Plan regarding: (a) how the acreage estimates were calculated; (b) a more detailed map and a better delineation of the different components of phase 1; (c) the basis for each of the cost estimates for each category listed; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland plantings and least tern and piping plover nesting habitat.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999

In addition, the Service would like an explanation of and justification for the (a) \$25,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$20,700 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$5,900 estimate for "Administration and General" for phase 1. All such costs appear to be excessive and may not be warranted.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999

4.2 Phase 2 (Year 1.5 - 5)

Page 26, Cost Estimate of Phase 2: The Service would like to have further information or clarification included within the Plan regarding: (a) how the acreage estimates were calculated for phase 2; (b) a more detailed map and a better delineation of the different components of phase 2; (c) the basis for each of the cost estimates for each category listed; and (d) more detail and specifics regarding the approximate locations of the 60 acres being proposed for wetland development on the south side of the project site, and the 150 acres proposed for grassland development and enhancement.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

In addition, the Service would like an explanation of and justification for the (a) \$15,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications"; (b) \$71,200 estimate for "Interest During Construction"; (c) \$3,000 estimate for Bid Letting and Contract Oversight"; (d) \$11,600 estimate for "Administration and General" and (e) \$300,000 for "Wetland Development South Side" for phase 2. All such costs appear to be excessive and may not be warranted.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

4.3 Phase 3 (Year 2 - 3.5)

Page 27, first paragraph, second sentence: The estimate of 125 acres of riparian forest to be cleared seems high.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 27, second paragraph, last sentence: Phase 3 includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 28, Cost Estimate of Phase 3: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 3; (b) a more detailed map with a better delineation of the different components of phase 3; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for seeding during phase 3.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

In addition, the Service would like an explanation of and justification for the (a) \$5,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications"; (b) \$15,300 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$5,800 estimate for "Administration and General" for phase 3. All such costs appear to be excessive and may not be warranted.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

4.4 Phase 4 (Year 3 - 5)

Page 29, first paragraph: Delete entire paragraph and revise and include where appropriate in revised draft Plan. The second sentence occurs about a half dozen times in the Plan.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 29, second paragraph, third sentence: The estimate of 160 acres of riparian forest to be cleared and 160 acres to be reseeded seems very high. Furthermore, a large percentage of this area will not have to be reseeded and will revegetate on its own.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 29, third paragraph: Phase 4 includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 30, Cost Estimate of Phase 4: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 4; (b) a more detailed map with a better delineation of the different components of phase 4; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 4.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

In addition, the Service would like a explanation of and justification for the (a) \$5,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$36,800 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$10,500 estimate for "Administration and General" for phase 4. All such costs appear to be excessive and may not be warranted.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

4.5 Phase 5 (Year 4 - 5)

Page 31, second paragraph, third sentence: The estimate of 230 acres of riparian forest to be cleared and 160 acres to be reseeded seems high.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 31, second paragraph, fourth sentence: Replace with, "All wood vegetation except trees identified by the Service and the NGPC, will be removed."

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 31, third paragraph: Phase 5 also includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 33, Cost Estimate of Phase 5: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 5: (b) a more detailed map wit a better delineation of the different components of phase 5: (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 5. In addition, the Service would like to review the justification for the \$3,000 estimate for "Bid Letting and Contract Oversight" for phase 5.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

4.6 Phase 6 (Year 5 - 6)

Page 34, second paragraph, third sentence: The estimate of 180 acres of riparian forest to be cleared seems high.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 34, third paragraph: Phase 6 also includes cost that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 35, Cost Estimate of Phase 6: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 6; (b) a more detailed map with a better delineation of the different components of phase 6; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 6. In addition, the Service would like to review the justification for the \$3,000 estimate for "Bid Letting and Contract Oversight" for phase 6.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

5.0 Summary

Page 36, second paragraph: Reference is made to the removal of approximately 820 acres of riparian cottonwood forest. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. Therefore, we would like a more detailed look at how the acreage estimates were calculated.

Response: The Plan has been modified to represent the discussion from the meeting of NPPD, Central, Governance Committee, NGPC and FWS held in Grand Island on June 11, 1999.

Page 36 and 37: The last paragraph of this section should be revised to address not only the benefits to the target species, but also the benefits of these activities to the Platte River ecosystem as a whole and the wide variety of species including sandhill cranes, migratory waterfowl (ducks and geese), shorebirds and wading birds, fish, and the numerous other fish and wildlife species that will benefit from this effort.

Response: All reference of the impacts of this Plan to species other than target species has been removed.

The last paragraph focuses on the potential impact to forest dwelling birds and states that, "Forest dwelling species will be negatively impacted especially those species requiring larger unbroken tracts of forest." If NPPD continues to include such a statement we recommend that the sentence be revised to state that "Forest dwelling species may be impacted on a very local scale, if at all, and that the Plan does not effect large tracts of riparian forest located along the entire north channel of the property or a large tract of riparian forest located on the southern half of the property." However, it is recommended that this paragraph be deleted as it does not contribute anything of value to this Plan.

Response: All reference of the impacts of this Plan to species other than target species has been removed.

THE STATE



OF WYOMING

NOTED

MAY 12 1999

J.J.J.

JIM GERINGER
GOVERNOR

Water Development Commission

HERSCHLER BUILDING

TELEPHONE: (307) 777-7626

CHEYENNE, WYOMING 82002

FAX: (307) 777-6819

May 6, 1999

Lawrence M. Besson
Director

Jim Jenniges
Nebraska Public Power District
1414 15th Street
P.O. Box 2170
Kearney, Nebraska 68847-2170

Kevin Behunin
George Q. Bower
William J. Franks
James F. Hicks
Dean House
Charles Murray
Sharon Nichols
Colleen Peterson
Don W. Riske
William D. Townsend III

Re: Comments and Questions, Cottonwood Management Plan

Dear Mr. Jenniges:

Enclosed is a xeroxed copy of your management plan that has several pages tagged. These pages were tagged to assist you with the correction of typographical errors which were discovered during review of the document.

Wyoming hereby offers the following questions and comments regarding the above referenced document:

1. Table 1 of Appendix B to the Cooperative Agreement entitled "Contributions of the States and of the Department of the Interior during the First Increment", denotes that the State of Nebraska received a credit of \$5.3M for the Cottonwood Ranch. The draft plan states that NPPD will spend up to \$1.3M to enhance the property. This infers a credit of \$4.0M for the property value. Apparently, this credit was established during the settlement process during FERC licensing. Is this the understanding of NPPD, the States of Nebraska and Colorado, and the Department of the Interior?

2. The draft plan calls for a six-phased property improvement process with an estimated cost of \$2,133,600, which is \$833,600 over the expenditure obligations of NPPD. Apparently, the draft plan was developed with input from the USFWS and the Nebraska Game and Parks Department.

I want to point out that the Governance Committee/Program has no obligation to participate in the overrun of \$833,600. However, the Governance Committee may decide it is a good investment for the program to financially participate if the enhanced improvements to the Cottonwood Ranch corresponds with the goals of the program.

At this point in time I am not so sure that the goals of the program could not be met with NPPD's \$1.3M. Therefore, the comments on this draft document should not be taken as an implied approval by the Governance Committee or the parties to the Cooperative Agreement that it plans to pay any part of the \$833,600.

NPPD has noted that its \$1.3M can and will be the first money spent to improve the Cottonwood Ranch. Because Nebraska received credit for this \$1.3M, it should be considered the same as program funds. Good business practices would indicate that the Governance Committee should get the maximum credits it can for the \$1.3M before considering any investments over and above that amount on the Cottonwood Ranch. Therefore, the following process should occur:

a. Develop an improvement program with a budget of \$1.3M that can achieve the maximum acreage credit toward the program goals. This initial improvement program should ultimately result in a defined amount of acreage credit toward the 10,000 acres. The \$1.3M should be used to fund those improvements which result in the most acreage credit within the confines of the Cottonwood Ranch.

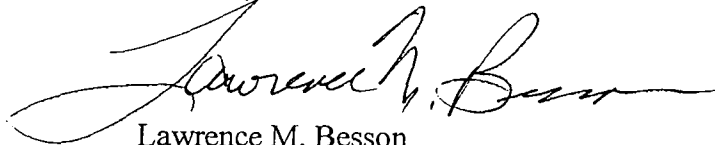
b. Evaluate other improvement opportunities on the Cottonwood Ranch and estimate the costs and associated acreage credits for these opportunities. Then, the Governance Committee can make responsible decisions as to whether or not to invest in additional improvements to the Cottonwood Ranch or to invest in other habitat improvement projects.

Because the habitat improvements and the resulting acreage credits will be an asset of the program, the Technical Committee and the Land Committee should be actively involved, or perhaps take the lead, in implementing the above described two-step process.

3. The Governance Committee should be obligated to pay maintenance costs on those acres within the Cottonwood Ranch which serve to meet the goal of 10,000 acres of habitat. It should not pay for the maintenance of any improvements which may be nice but do not contribute to program goals.

Should you have any questions, please do not hesitate to contact me or Mike Purcell at (307)634-0752.

Sincerely,

A handwritten signature in black ink, appearing to read "Lawrence M. Besson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Lawrence M. Besson
Wyoming Representative
Cooperative Agreement

cc: Dale Strickland
Governance Committee
Mike Purcell
Jeff Fassett

Reco039.wpd



CENTRAL
Nebraska Public Power
and Irrigation District

May 21, 1999

NOTED

MAY 24 1999

J.J.J.

Jim Jenniges
NPPD
Box 2170
Kearney NE 68848

Dear Jim,

The Central Nebraska Public Power and Irrigation District hereby provides the following comments on the Development and Enhancement Plan for Nebraska Public Power District's Cottonwood Ranch Property.

1. On a purely editorial basis, the phrase "design management" is used throughout, and is very confusing, probably because design can be both a noun and a verb, and management can be both a noun and an adjective. If you mean, "develop habitat management procedures" you might consider changing to that phrase, as "design management" sounds most like a team put in place to handle design work.
2. You repeatedly indicate that the Management Oversight Committee (MOC) will be closely involved in moving from this broad plan to implementation of management practices. Instead, in a few places, you assign the types of tasks or decisions typically assigned to the MOC to a smaller group. It is not clear why that would be appropriate. See section 2.0, page 5 (NPPD, FWS, NGPC and the Governance Committee, rather than the entire MOC, get data to "design management, implement monitoring, obtain permits and reduce risk of liability consistent with adaptive management"); page 20 (NPPD, FWS and NGPC alone are involved in development and review of the public use/recreation plan). We suggest you designate the MOC in all cases.
3. In section 2.2 and throughout the plan, you suggest that substantive research and drafting tasks will be carried out by the MOC. E.g., page 7 ("the committee will obtain the needed information"); page 11 ("Management procedures will be developed by the Management Oversight Committee; pages 14, 17 (information on other groundwater studies will be obtained by the MOC); page 19 (the MOC will develop a grazing protocol); page 22 (the MOC will develop a management protocol for grassland, sloughs and backwaters). Aren't these tasks for NPPD to perform, but with coordination and advice from the MOC, with the goal of achieving consensus and support? It sounds as if other participants in the committee are being asked to contribute work products or in-kind services, something much more substantial than anticipated and which are NPPD's responsibilities.

Home Office • 415 Lincoln Street • P.O. Box 740 • Holdrege, Nebraska 68949-0740 • (308) 995-8601

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General Manager

4. On page 11, you state "All parties agree that the development and enhancement measures outlined in this plan fulfill obligations for habitat enhancement by NPPD." One problem with this statement is that the plan includes more measures than NPPD, in fact, intends to do. Another is that the details, which have yet to be developed, are subject to modification through adaptive management practices. The statement suggests that even if you spend \$1.3 million, unless all measures in the plan are complete, you have not fulfilled your obligations. We doubt this is what you intend. You have raised the specter of the BO and appear to be attempting to answer the question of whether the amount of enhancement you are proposing is enough. This seems unnecessary in the plan. FWS should be willing to affirm in a letter whether or not you have satisfied their concerns.
5. On page 12, you define "active channel" as having flowing water at "normal" river stages. In the next sentence, you indicate you may design active channel for only "high flow events." This seems contradictory.
6. On page 14, you indicate that NPPD, FWS and NGPC agree that management of backwaters, sloughs and the adjacent uplands will provide habitat for the target species, and will replace the need for wet meadows adjacent to the channel. Is this "locked in" or subject to concurrence by the Program Governance Committee in the future? What if this isn't consistent with the Program's position? Does the Governance Committee have a view now? Isn't this one of the things that might be left to conclude with review and make subject to adaptive management?
7. On page 18, section .2 on bald eagles, you state "NPPD will be relieved of any responsibility to mitigate for management actions developed under this plan which may adversely effect (sic) eagle use of the property." While we certainly agree with the position that no one should have to mitigate for mitigation, it seems unlikely that FERC will be able to approve such a broadly worded statement about potential impacts on a listed species, particularly since the management actions referred to have yet to be identified. Perhaps the same end can be accomplished by including a provision that as management procedures are developed and reviewed in the MOC, the potential for impacts on eagle roost and perch sites will be considered and minimized to the extent possible. Then you can say something to the effect that, while no mitigation is expected to be needed, if it were sought, it would count toward your cost cap.
8. On page 19 you indicate that farming practices will remain unchanged, and state the number of acres of corn and alfalfa that are to be approved, subject to wetland and swale exceptions. This appears to lock these farming practices in stone as useful to whooping cranes. It also appears to contradict your statement on page 23 that agriculture and grazing are management tools and their implementation may be altered in subsequent phases.
9. On page 36, in your summary you indicate that tern and plover nesting habitat will be capable of being maintained for 40 years and will be protected from predators. These strong commitments to achieve particular results appear at odds with the more realistic discussions

earlier in the text, and should probably be edited. First, in section 3.2 you acknowledge that habitat islands may erode or wash out, and establish guidelines for repair and replacement. Second, section 3.2 appears to address the question of tern and plover habitat predator barriers such as electric fencing by designing habitat so their use is possible, but not necessarily mandatory. This appears appropriate as predator barriers are currently favored by some biologists but others do not believe they are effective or may even be counter to the concept of developing "sustainable habitat". Regardless, that type of management may be evaluated through the Program's adaptive management practices. Habitat may or may not ultimately include predator barriers, and if it does not, it will be because, after trying them, the Program concluded that a commitment that nesting habitat "will be protected from predators" is not practical or achievable.

If you have any questions concerning these comments, please contact Mark Peyton at 308-537-3582.

Sincerely,



J.L. Maher

Environmental Resources Manager



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Nebraska Field Office
203 West Second Street
Grand Island, Nebraska 68801

NOTED

MAY 24 1999

J.J.J.

May 19, 1999

Mr. Jim Jenniges
Nebraska Public Power District
P.O. Box 2170
Kearney, NE 68848-2170

Dear Mr. Jenniges:

The U.S. Fish and Wildlife Service (Service) has reviewed the "Draft Development and Enhancement Plan for NPPD's Cottonwood Ranch Property" (Plan) provided by Nebraska Public Power District (NPPD) in accordance with Federal Energy Regulatory Commission's (FERC) July 29, 1998, License 1835, Article 407. We appreciate NPPD's efforts to consult with the Service regarding the development of this draft Plan, and provide the following general and enclosed specific comments for your consideration.

Pursuant to License Article 407, not only is NPPD required to consult with the Service and the Nebraska Game and Parks Commission (NGPC) on the development of the Plan, the Plan should be completed with the concurrence of the Service and the NGPC before filing with FERC. Therefore, to expedite this process we encourage NPPD to arrange a meeting with the Service and the NGPC to discuss these comments in more detail and resolve any differences that may arise. We also recommend that a revised draft be provided to the Service and the NGPC for further review and concurrence before filing a final Plan with FERC.

GENERAL COMMENTS

In general, this draft Plan represents a positive step toward satisfying the requirements of License Article 407, as it includes most of the landscape measures that have been discussed as components of a development and enhancement plan for the Cottonwood Ranch. However, the Service needs further clarification regarding a lot of the information in the Plan. For example, the Service would like to see the following information in a revised draft of the Plan: (a) how the acreage estimates were calculated; (b) a more detailed map showing the acreage estimates for each of the phases and a better delineation of the different components of each phase; (c) the basis for each of the cost estimates for each category listed for each phase; and (d) more

detail and specifics regarding what areas south of the river are being proposed for wetland and grassland development activities.

In addition, there are numerous items or categories included as part of each proposed phase in the Plan that are counted toward the \$1.3 million cap which NPPD is required to spend on development and enhancement measures per License Article 407 that the Service does not agree with or needs further explanation. For example, there is \$50,000 included as a cost for Phases 1-4 for obtaining baseline habitat information. Pursuant to NPPD's new License Article 405, NPPD together with Central Nebraska Public Power and Irrigation District are required to spend up to \$100,000 per year to monitor wildlife, including endangered species and their habitats, and to collect habitat baseline information on least terns, piping plovers, fish, vegetation and channel configuration changes, and whooping crane use, of the lands acquired and developed pursuant to their new licenses. The Service does not believe that the cost of collecting habitat baseline information should be included as part of the cost of development and enhancement measures pursuant to License Article 407. The Service further believes a revised draft Plan should include an explanation of and justification for the following cost items: (a) \$144,000 estimate for "Interest During Construction"; (b) \$18,000 estimate for "Bid Letting and Contract Oversight"; and (c) \$33,800 estimate for "Administration and General." All such costs appear to be excessive and may not be warranted.

Furthermore, even though the Service agrees, for the most part, with the areas delineated as areas where trees and other undesirable woody vegetation will be cleared, we do not agree with the acreage calculation for those areas and thus the total estimated cost to clear the areas. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. For example, the draft Plan indicates that approximately 820 acres of riparian cottonwood forest will be cleared. However, the Service's estimate for the same area is closer to 600 acres. Therefore, we believe a revised draft Plan should include more detailed information on how the acreage estimates were calculated. The amount of acres to be clear has a significant effect on the total cost of each phase of the plan. The difference between clearing 800 acres versus 600 acres at a cost of approximately \$900 per acre is \$180,000. The total cost estimate for grassland plantings is also influenced by these acreage estimates.

The draft Plan also includes costs that are associated with the maintenance of the project site after the development measures have been completed. The total cost for the proposed maintenance activities (e.g., noxious weed

control, prescribed burns, disking, mowing, etc.) is approximately \$200,000 and should not be included as part of the cost for development and enhancement measures.

In light of the above concerns regarding acreage estimates and other items that the Service believes should not be included as part of the cost for implementing the Plan, the Service believes that the majority, if not all, of the actual development and enhancement measures can be accomplished by NPPD at a cost not to exceed \$1.3 million. The Service also believes that the proposed time schedule for completing the development and enhancement measures is excessive and recommends that the target date for completion of all phases (1-6) should not exceed 4 years from the date on which FERC approves the Plan.

The draft Plan focuses on the benefits to the target species and does not adequately address the potential benefits of these activities to the Platte River ecosystem as a whole and the wide variety of other species (e.g., sandhill cranes, migratory waterfowl, shorebirds, wading birds, fish, etc.) that will benefit from this effort. The summary section of the Plan should be revised to address these additional benefits as well.

There are also numerous references to "management procedures" and the "Management Oversight Committee." Management, maintenance, development, and enhancement are often confused. The Service recommends that this Plan focus on the initial development and enhancement of the Cottonwood Ranch and that NPPD should try to avoid the use of "management" and "maintenance" in the Plan. The Service further recommends that the Management Oversight Committee be changed to Development and Enhancement Oversight Committee (Oversight Committee) and management procedures be renamed development and enhancement procedures to avoid confusion.

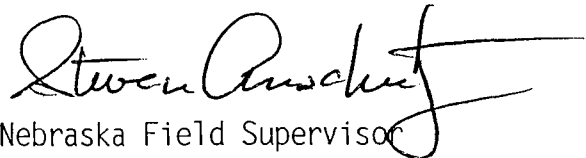
Furthermore, the Service recommends that representatives from the conservation organizations (i.e., Platte River Whooping Crane Maintenance Trust (Trust) and The Nature Conservancy (TNC)) participate on the Oversight Committee due to their experience and knowledge regarding the development and enhancement of in-channel, wet meadow and grassland habitats and due to the location of the Cottonwood Ranch in relation to lands owned and managed by these organizations. The inclusion of this recommendation into the Plan would help facilitate the development and enhancement of the project area as a single unit. This recommendation is also consistent with the requirements of Article 407 and the Agreement in Principle dated June 30, 1997.

It is also imperative that concurrence from the Service and NGPC be a requirement for any land development and enhancement decision made by the

Oversight Committee before any resultant action is taken by NPPD. Article 407 requires concurrence by the Service of the Plan and we are not waving our right by agreeing that a Oversight Committee be formed to coordinate and review specific development and enhancement action items.

Additional specific comments regarding the draft Plan are enclosed. We appreciate the opportunity to provide comments on this draft Plan and look forward to its finalization and enactment. If you have any questions or need to make arrangements to discuss these comments in more detail, please contact Mr. Kenny Dinan of my staff at (308)-382-6468, extension 13.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven A. Rauscher". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Nebraska Field Supervisor

Enclosure

cc:

NGPC; Lincoln, NE: (Attn: Mike Fritz)
NGPC; Kearney, NE: (Attn: Mark Humpert)
CNPPID; Holdredge, NE: (Attn: Mark Peyton)
DOI: Regional Solicitor's Office: (Attn: Margot Zallon)
USFWS; R-6, GARD-SO: (Attn: Joe Webster)

Specific Comments
on the
Draft Development and Enhancement Plan
for
Nebraska Public Power District's
Cottonwood Ranch Property
in accordance with
Federal Energy Regulatory Commission License 1835, Article 407

SPECIFIC COMMENTS BY SECTION

Title

On page 2 of the Plan, change the title from "Management Plan for NPPD's Cottonwood Ranch Property" to "Development and Enhancement Plan for NPPD's Cottonwood Ranch Property."

1.0 Background and 1.1 Development and Enhancement Plan

These two sections should be combined into one section due to similar language included in both sections.

We recommend that the second sentence of the first paragraph be changed to include section 1.1. For example, the second sentence could start off with "License Article 407 for Project 1835 states...", followed by the italicized text in section 1.1. and delete the rest of the first paragraph on page 2.

Page 2, second paragraph, first sentence: Add "As required by Article 407," to the beginning of the first sentence and delete "which meets the qualifications, noted above."

Page 2, second paragraph, sixth sentence: Add "A portion of this property" to the beginning of the sixth sentence.

Page 2, second paragraph, last sentence: Add the words "develop and" between the words "to" and "enhance this property."

Page 3, first full paragraph, first sentence: Delete the first sentence and replace with, "To facilitate the development and enhancement of Cottonwood Ranch for the target species, NPPD in consultation with the U.S. Fish and Wildlife Service (FWS), Nebraska Game and Parks Commission (NGPC), the Central Nebraska Public Power and Irrigation District (Central) and the Governance Committee have developed this Plan per License Article 407."

Page 3, first full paragraph, third sentence: Delete the word "Management" and replace with, "Development and enhancement measures"

Page 3, first full paragraph, fourth sentence: Replace the fourth sentence with the following: "The Plan specifies development and enhancement objectives but does not specifically state the measures taken to achieve those objectives".

Page 3, first full paragraph, last sentence: Replace "Specific management actions" with "Specific measures to be taken."

Page 3, first full paragraph: Add to the end of the first full paragraph, "This Plan only addresses the initial development and enhancement of the Cottonwood Ranch property and does not address management and maintenance." Under License Article 407, NPPD is responsible for maintenance of the project site and the development of a maintenance plan if it becomes clear that the Program is unwilling or unable to provide maintenance of these lands. The cost of maintenance activities should not be included as part of NPPD's \$1.3 million cap for development and enhancement measures.

Page 3, last paragraph: Delete entire paragraph. The first sentence would be included in the recommended changes to the previous paragraph and the last two sentences are inappropriate and add no value to this Plan.

2.0 Development and Enhancement Implementation

This section should begin with the language on the bottom half of the paragraph on page 6 which begins as follows, "Developments and enhancements to the property will be completed through a phased approach,"

Page 5, first paragraph, first sentence: Replace the words "Development and enhancements" with "Development and enhancement phases."

Page 6, first sentence: Replace "management" with "measures."

Page 6, second sentence: Replace "management options" with "development and enhancement options."

Page 6, fourth sentence: The Plan states that, "Development and enhancement of habitat will be completed within 6 years of approval of this Plan." The Service believes that the time schedule for completion of the development and enhancement measures is too long and believes that the implementation of this Plan can be accomplished within 4 years from the date of FERC approval.

2.1 Management Oversight Committee

Throughout this section and the rest of the plan, replace "Management Oversight Committee" with "Development and Enhancement Oversight Committee."

Page 6, last paragraph, first sentence: Replace, "... to design specific management actions." with "... to identify, design, and recommend specific

measures to complete the development and enhancement of each phase of this Plan."

Page 6, last paragraph, first sentence: The Service recommends that representatives from the conservation organizations (i.e., Trust and TNC) be invited to participate on the Oversight Committee due to their experience and knowledge regarding the development and enhancement of in-channel, wet meadow and grassland habitats and due to the location of the Cottonwood Ranch in relation to lands owned and managed by these organizations.

Page 6, last paragraph: Combine the last two sentences into one sentence. For example the last half of the sentence could read "...to insure that the developments and enhancements of the property for the target species are being completed in a timing manner."

2.2 Selection of Management Actions

Change the heading from "Selection of Management Actions" to "Selection of Development and Enhancement Measures."

Change "Management Procedures" to "Development and Enhancement Procedures" throughout the Plan.

Page 7, middle of the paragraph, fourth sentence: Reference is made to the need of consensus of the Oversight Committee to achieve developments and enhancements. Additional clarification regarding the composition of the Oversight Committee and the roles and responsibilities of each party needs to be discussed. It is also imperative that concurrence from the Service and NGPC be a requirement for any land development and enhancement decision made by the Oversight Committee before any action is taken by NPPD. Specific actions recommended by the Service and the NGPC should not be ignored or not implemented because there is not consensus by the entire Oversight Committee.

2.3 Annual Reporting

Page 8, first paragraph, first sentence: Replace "management" with "development and enhancement."

Page 8, first paragraph, second sentence: Delete, "from Section 4."

Page 8, first paragraph, third sentence: Replace the words "management procedures for" with "description of."

Page 8, first paragraph, fourth sentence: Replace the words "Because most management activities" with "Because it is anticipated that most development and enhancement measures" and add the words "late summer" between the words "the" and "fall."

3.0 Management to Implement Development and Enhancement

Change the heading to "Development and Enhancement Objectives."

3.1 Baseline Conditions and Monitoring

In the draft Plan there is \$50,000 included as a cost for Phases 1-4 for obtaining baseline habitat information. Pursuant to NPPD's new License Article 405, NPPD together with Central Nebraska Public Power and Irrigation District are required to spend up to \$100,000 per year to monitor wildlife including endangered species and their habitat and to collect habitat baseline information on least terns, piping plovers, fish, vegetation and channel configuration changes, and whooping crane use, of the lands acquired and developed pursuant to their new licenses. The Service does not believe that the cost of collecting habitat baseline information should be included as part of the cost of development and enhancement measures pursuant to License Article 407 and should not count toward the \$1.3 million cap for development and enhancement measures.

Page 9, first paragraph, second sentence: Replace, "Management activities to achieve development and enhancement objectives will..." with "Development and enhancement measures will"

3.2 Least Tern and Piping Plover Habitat

Page 9, last paragraph, third sentence: Delete this sentence. Under Article 407, NPPD is responsible for developing least tern and piping plover nesting habitat on the project site and the maintenance of this habitat if the Program does not implement a maintenance program.

Page 9, last paragraph, last sentence: Add the words "if deemed necessary." to the end of this sentence.

Page 10, first paragraph, second sentence: Replace the word "created" with either "developed" or "restored."

Page 10, second paragraph: Delete and replace the entire second paragraph with "This habitat area will be available for use by least terns and piping

plovers within 18 months of approval of this Plan by FERC. If permits are required, the development of this habitat area will not be initiated until the necessary permits have been obtained. Application for permits will be filed within 60 days of FERC approval of this Plan."

3.3 Channel Enhancements

Change heading to "Channel Developments and Enhancements."

Page 11, first paragraph, third sentence: Replace "... a general goal of channel enhancement." with "... a general goal for channel development and enhancement activities."

Page 11, first paragraph: Delete the last two sentences beginning with "The FWS, NGPC, and NPPD ..." and ending with "... for habitat enhancements by NPPD."

Page 11, second paragraph, fourth sentence: Delete, "be required to." There is also reference to the removal of approximately 820 acres of riparian cottonwood forest. The Service agrees, for the most part, with the areas delineated as areas where trees and other undesirable woody vegetation will need to be cleared; however, we do not agree with the acreage calculation for those areas. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. Therefore, we would like a more detailed look at how the acreage estimates were calculated and more detailed maps included in the Plan delineating the areas to be cleared for each phase of work to be accomplished.

Page 11, second paragraph, fifth sentence: Delete and replace with "Development and enhancement procedures will be developed by the Oversight Committee to achieve the desired channel developments and enhancements."

Page 11, second paragraph, last sentence: Treatment of noxious weeds is a maintenance cost and should not be included as part of NPPD's \$1.3 million cap.

Page 12, first full paragraph, second sentence: Add, "if agreed to by the FWS and NGPC." at the end of the sentence.

Page 12, first full paragraph, third sentence: Delete and replace with, "Most of the clearing of woody vegetation will be done between July 15 and February

15." Construction during these time periods will minimize or avoid potential impacts to migratory birds.

Page 12, first full paragraph, fourth sentence: Not all of the areas that are cleared of woody vegetation will require reseeding. Some of the areas will revegetate naturally.

Page 12, first full paragraph: Add the following sentence to the end of the paragraph: "Reshaping of the banks and potential widening of the channels in selected areas will be considered by the Oversight Committee for each phase of the Plan."

Page 12, second full paragraph: This paragraph appears to be more of a monitoring issue. The Development and Enhancement Oversight Committee could make recommendations to the Monitoring Oversight Committee regarding who studies what, when, and where, but it is imperative that the Cottonwood Ranch be restored to provide habitat for least terns, piping plovers, and whooping cranes. If Cottonwood Ranch cannot be restored for the benefit of these species, then it does not meet NPPD's License Article 407 requirements.

Page 13, first paragraph, last sentence: Replace with, "Channel development and enhancement measures will commence when a procedure has been recommended by the Oversight Committee and approved by the FWS and NGPC and all permits are acquired."

3.4 Wet Meadow, Slough and Backwater Enhancement/Creation/restoration adjacent to Channel

Page 13, Objective: Add the words "Develop and" to the beginning of the sentence.

Page 14, first paragraph, first sentence: Replace "during channel enhancements activities listed in Section 3.3." with "during the different phases of this Plan."

Page 14, first paragraph, second sentence: Add "least terns, and piping plovers, and will provide benefits to numerous other native fish and wildlife species."

Page 14, first paragraph, third sentence: Add "and active river channels," to the end of the sentence.

Page 14, second paragraph, first sentence: Delete "and will replace the need for wet meadows adjacent to the channel."

Page 14, second paragraph, second sentence: Add the word "may" between "but" and "provide."

Page 15, first paragraph, last sentence: Delete "Each backwater will have a wetted width of a least 50 feet with gradually sloping banks." The dimensions of the backwater areas will be determined prior to construction and will vary from site to site depending on present landscape features and other factors.

Page 15, second paragraph, last two sentences: Delete. The dimensions and construction criteria for backwaters and sloughs will be determined prior to construction and will vary from site to site depending on present landscape features and other factors.

Page 15, after second paragraph: Add "In addition to providing habitat for the target species, the development and enhancement of backwaters and sloughs will contribute toward the restoration of the Platte River ecosystem which is relied upon by numerous fish and wildlife species."

3.5 Grassland, Wetland and Meadow Enhancement/Creation/Restoration Away from Channel Areas

Page 16: Delete the word "Creation" from the heading and the objective statement.

Page 16: Delete the word "Critical" from the Trust's name.

Page 17, first full paragraph, first sentence: Not all of the areas modified will need to be re-seeded. Many wetland areas will have a sufficient seed bank to revegetate on their own. In addition, the Service does not agree with the second sentence which requires wetlands to be inoculated with sediment from nearby wetlands. Inoculating areas with sediment is usually only done when you are creating a wetland.

Page 17, second full paragraph: The installation of groundwater monitoring wells and groundwater studies should be include as part of the cost NPPD is required to spend on monitoring efforts under license Article 405, not Article 407.

3.6 Bald Eagle Perch and Roost Sites

Page 18, first paragraph: Delete first paragraph under section 3.6 and start this section with the second paragraph. In addition, add the following sentence at the end of the second paragraph. "In addition, on other areas scheduled to be cleared of trees and other undesirable woody vegetation, the Service and NGPC, in coordination with NPPD, will jointly identify trees that should be left standing as bald eagle perch and roost sites before the implementation of each phase."

3.7 Agricultural Uses

This entire section needs to be revisited and revised. The Service has not agreed that, "Farming practices will remain as they exist at the current time."

4.0 Management Phases

Rename heading to "Development and Enhancement Phases."

Page 21, first paragraph under section 4.0, last sentence: Change "will" to "may" and capitalize "program."

4.1 Phase 1 (Year 1-2)

Page 21, first paragraph under section 4.1, second sentence: Change to "Application for permits will be submitted within 60 days of FERC approval of this plan."

Page 21, last paragraph: Insert at the end of the paragraph "Development and enhancement measures for the different phases that do not require a permit will not be delayed while processing permits for other components of the project."

Page 22, second paragraph: Change "Commission" to "FERC."

Page 22, third paragraph, second sentence: Replace "except known eagle perch sites," with "except those identified by the Service and NGPC."

Page 22, third paragraph, third sentence: The estimate of 120 acres of riparian forest to be cleared and 100 acres to be reseeded seems high.

Page 24. Cost Estimate of Phase 1: The Service would like to have further information or clarification included within a revised draft version of the Plan regarding: (a) how the acreage estimates were calculated; (b) a more detailed map and a better delineation of the different components of phase 1; (c) the basis for each of the cost estimates for each category listed; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland plantings and least tern and piping plover nesting habitat.

In addition, the Service would like an explanation of and justification for the (a) \$25,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$20,700 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$5,900 estimate for "Administration and General" for phase 1. All such costs appear to be excessive and may not be warranted.

4.2 Phase 2 (Year 1.5 - 5)

Page 26. Cost Estimate of Phase 2: The Service would like to have further information or clarification included within the Plan regarding: (a) how the acreage estimates were calculated for phase 2; (b) a more detailed map and a better delineation of the different components of phase 2; (c) the basis for each of the cost estimates for each category listed; and (d) more detail and specifics regarding the approximate locations of the 60 acres being proposed for wetland development on the south side of the project site, and the 150 acres proposed for grassland development and enhancement.

In addition, the Service would like an explanation of and justification for the (a) \$15,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$71,200 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; (d) \$11,600 estimate for "Administration and General" and (e) \$300,000 for "Wetland Development South Side" for phase 2. All such costs appear to be excessive and may not be warranted.

4.3 Phase 3 (Year 2 -3.5)

Page 27. first paragraph, second sentence: The estimate of 125 acres of riparian forest to be cleared seems high.

Page 27. second paragraph, last sentence: Phase 3 includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control,

prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Page 28. Cost Estimate of Phase 3: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 3; (b) a more detailed map with a better delineation of the different components of phase 3; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for seeding during phase 3.

In addition, the Service would like an explanation of and justification for the (a) \$5,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$15,300 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$5,800 estimate for "Administration and General" for phase 3. All such costs appear to be excessive and may not be warranted.

4.4 Phase 4 (Year 3 - 5)

Page 29. first paragraph: Delete entire paragraph and revise and include where appropriate in revised draft Plan. The second sentence occurs about a half dozen times in the Plan.

Page 29. second paragraph. third sentence: The estimate of 160 acres of riparian forest to be cleared and 160 acres to be reseeded seems very high. Furthermore, a large percentage of this area will not have to be reseeded and will revegetate on its own.

Page 29. third paragraph: Phase 4 includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Page 30. Cost Estimate of Phase 4: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 4; (b) a more detailed map with a better delineation of the different components of phase 4; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 4.

In addition, the Service would like an explanation of and justification for the (a) \$5,000 estimate for "Obtaining Baseline Habitat Information and Permit Applications; (b) \$36,800 estimate for "Interest During Construction"; (c) \$3,000 estimate for "Bid Letting and Contract Oversight"; and (d) \$10,500 estimate for "Administration and General" for phase 4. All such costs appear to be excessive and may not be warranted.

4.5 Phase 5 (Year 4 - 5)

Page 31, second paragraph, third sentence: The estimate of 230 acres of riparian forest to be cleared and 160 acres to be reseeded seems high.

Page 31, second paragraph, fourth sentence: Replace with, "All woody vegetation except trees identified by the Service and the NGPC, will be removed."

Page 31, third paragraph: Phase 5 also includes costs that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Page 33, Cost Estimate of Phase 5: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 5; (b) a more detailed map with a better delineation of the different components of phase 5; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 5. In addition, the Service would like to review the justification for the \$3,000 estimate for "Bid Letting and Contract Oversight" for phase 5.

4.6 Phase 6 (Year 5 - 6)

Page 34, second paragraph, third sentence: The estimate of 180 acres of riparian forest to be cleared seems high.

Page 34, third paragraph: Phase 6 also includes cost that are associated with the maintenance of the site after the development measures are completed. The cost of maintenance activities (e.g., noxious weed control, prescribed burns, disking, mowing, etc.) should not be included as part of the cost for development and enhancement measures.

Page 35, Cost Estimate of Phase 6: The Service would like to have further information or clarification included within the Plan regarding: (a) acreage estimates for phase 6; (b) a more detailed map with a better delineation of the different components of phase 6; (c) the basis for each of the cost estimates for each category; and (d) more detail and specifics regarding the approximate locations of areas being proposed for grassland planting during phase 6. In addition, the Service would like to review the justification for the \$3,000 estimate for "Bid Letting and Contract Oversight" for phase 6.

5.0 Summary

Page 36, second paragraph: Reference is made to the removal of approximately 820 acres of riparian cottonwood forest. The acreage figures calculated by NPPD for the amount of land to be cleared are significantly higher than the acreage figures calculated by the Service for the same areas. Therefore, we would like a more detailed look at how the acreage estimates were calculated.

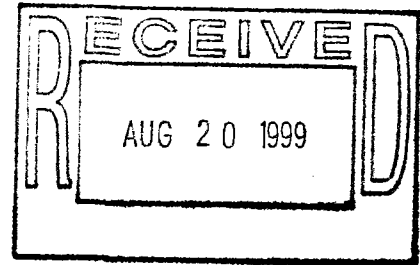
Page 36 and 37: The last paragraph of this section should be revised to address not only the benefits to the target species, but also the benefits of these activities to the Platte River ecosystem as a whole and the wide variety of species including sandhill cranes, migratory waterfowl (ducks and geese), shorebirds and wading birds, fish, and the numerous other fish and wildlife species that will benefit from this effort.

The last paragraph focuses on the potential impact to forest dwelling birds and states that, "Forest dwelling species will be negatively impacted especially those species requiring larger unbroken tracts of forest." If NPPD continues to include such a statement we recommend that the sentence be revised to state that "Forest dwelling species may be impacted on a very local scale, if at all, and that the Plan does not effect large tracts of riparian forest located along the entire north channel of the property or a large tract of riparian forest located on the southern half of the property." However, it is recommended that this paragraph be deleted as it does not contribute anything of value to this Plan.



Nebraska Public Power District
Nebraska's Energy Leader

August 16, 1999



Mr. Dale Strickland
WEST, Inc.
2003 Central Avenue
Cheyenne WY 82001

Dear Dale:

At the August Technical Committee meeting, it was decided that the following two plans be distributed to the Technical Committee members for review:

1. Monitoring Plan dated January 25, 1999 (attached)
2. Development and Enhancement Plan for NPPD's Cottonwood Ranch Property dated July 21, 1999 (W&S mailed w/letter dated July 29, 1999)

Please distribute the attached cover memo and Plans to the Technical Committee. To save on copying cost and time, I suggest not copying Appendix B of the Development and Enhancement Plan. Appendix B contains comments on the first draft and NPPD's response to those comments and has little meaning with out seeing the first draft.

If you have any questions, please feel free to contact me at (308) 236-2292.

Thanks for your help.

Sincerely,

Jim Jenniges *by kms*
Environmental Specialist

/ks
Enclosure



Nebraska Public Power District
Nebraska's Energy Leader

August 16, 1999

Technical Committee Members:


Enclosed is a copy of the Monitoring Plan filed with the Federal Energy Regulatory Commission (FERC) by Nebraska Public Power District (NPPD) and the Central Nebraska Public Power and Irrigation District (Central). This plan has been approved by FERC and will remain in effect until a Program is established that includes a monitoring component. NPPD and Central will integrate our monitoring efforts with others when a Program is established. The Monitoring Plan was developed in consultation with, and has concurrence by, the Fish and Wildlife Service (FWS) and Nebraska Game and Parks Commission (NGPC). This Plan is being provided so that the Technical Committee members can see the level of monitoring being conducted by the Districts for their FERC Licenses.

Also enclosed is a copy of the Development and Enhancement Plan for Nebraska Public Power District's Cottonwood Ranch Property. The Cottonwood Ranch Property was an up-front contribution of property that can be managed for the avian target species of the Cooperative Agreement. The Development and Enhancement Plan for the Cottonwood Ranch Property was developed in consultation with and has concurrence by the FWS and NGPC. This Plan has been filed with FERC but has not yet been approved and is therefor subject to revision if deemed necessary by FERC. The objective of the Development and Enhancement Plan is to provide the greatest biological benefit to the avian target species of the Cooperative Agreement. This Plan is consistent with the recommendations of the Cooperative Agreement and thus makes an excellent tool to evaluate these management practices as part of the adaptive management regime to be used by the Program.

I would encourage everyone to take an objective look at these Plans to see how the Technical Committee can integrate them into a monitoring and research program. The monitoring and research should be sufficient to determine the benefit of these developments and enhancements to the target species, changes to existing conditions, and provide for adaptive management of future properties obtained by the Program.

If you have any questions, please feel free to call me at (308) 236-2293.

Sincerely,


Jim Jenniges ^{by KMS}
Environmental Specialist

/ks
Enclosure

Monitoring Plan

January 25, 1999

For

Federal Energy Regulatory Commission License 1835 Article 405
(Nebraska Public Power District)

And

Federal Energy Regulatory Commission License 1417 Article 423
(The Central Nebraska Public Power and Irrigation District)

Prepared by:

Jim Jenniges

Nebraska Public Power District

Box 2170

Kearney, NE 68848-2170

Mark Peyton

The Central Nebraska Public Power and Irrigation District

320 Avenue D

Gothenburg, NE 69138

MONITORING PLAN FOR PROJECTS 1417 AND 1835

1.0 Background

On July 29, 1998 the Federal Energy Regulatory Commission (FERC) issued 40 year licenses for Nebraska Public Power District's (NPPD) Project 1835 and the Central Nebraska Public Power and Irrigation District's (Central) Project 1417 (collectively, Districts). NPPD's Project 1835 is the North Platte/Keystone Diversion Dam. Central's Project 1417 is the Kingsley Dam Project. Article 405 of the FERC License for Project 1835 and Article 423 of the FERC License for Project 1417, require that NPPD and Central consult with each other, the U.S. Fish and Wildlife Service (FWS) and Nebraska Game and Parks Commission (NGPC), to develop a plan to monitor conditions for wildlife, including endangered species and their habitats on lands provided by the Districts for habitat.

The annual costs of implementing this plan are capped at \$100,000 (1997 dollars) in cash and in-kind services. This plan was developed through a series of meetings and conference calls among the consulting parties concerning what activities could be achieved within that budget, and which were the highest priority.

1.1 License Conditions

Article 405 for Project 1835 states in relevant part:

the Licensee, together with the licensee of Project No. 1417, shall, after consultation with the Fish and Wildlife Service ("FWS") and the Nebraska Game and Parks Commission ("NGPC"), file for Commission approval a plan, consistent with Section IV.D. of the Agreement in Principal dated June 30, 1997, to monitor, until such time as there is a Program, wildlife, including endangered species and their habitats, on the lands acquired and developed pursuant to this license and on the least tern and piping plover habitat sites managed and maintained by the Licensee. The plan shall focus on collecting habitat baseline information on least terns and piping plovers, fish, vegetation and channel configuration changes, and whooping crane use of the habitat areas, and shall include provisions for reporting monitoring results to FWS, NGPC, the Governance Committee of the Cooperative Agreement,

and the Commission. The Licensee, together with the licensee of Project No. 1417, shall spend up to \$100,000/year (1997 dollars) in cash or in-kind services to implement this monitoring plan. The Commission reserves the right to make reasonable changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of the Commission approval.

Article 423 for Project 1417 states in relevant part:

the Licensee and the licensee of Project No. 1835, in coordination with the U. S. Fish and Wildlife Service and, the Nebraska Game and Parks Commission and working through the Governance Committee of the Cooperative Agreement, shall jointly develop and file with the Commission approval a plan to fund or carry out monitoring activities, including monitoring of endangered species and their habitats, on the lands acquired pursuant to Articles 417 through 420, until such time as there is a Program. The plan shall focus on collecting habitat baseline information on least terns and piping plovers, fish, vegetation and channel configuration changes, and whooping crane use of the habitat areas, and shall include provisions for reporting monitoring results to the U. S. Fish and Wildlife Service, the Nebraska Game and Parks Commission, the Governance Committee of the Cooperative Agreement, and the Commission. The Licensee and the licensee of Project No. 1835, shall be required to spend no more than \$100,000 (1997 dollars) annually in cash and in-kind services to implement the plan. The Commission reserves the right to make changes in the plan. The Licensee shall begin implementing the plan as approved by the Commission within six months of the Commission approval.

1.2 Plan Effectiveness and Relationship to a Basin-wide Program.

As reflected in the license articles, this monitoring plan was prepared with the expectation that a basin-wide Recovery Implementation Program (Program) will be implemented within a few years which will include a substantial monitoring and research component. The licensees are participants in the process to develop a Program and its

monitoring component. As indicated in the Offer of Settlement which proposed these license articles, the licensees expect that this monitoring plan or the monitoring protocols used under this plan may be revised or replaced when a Program is implemented to integrate the Districts' monitoring activities into the Program's effort.

Until such time as a Program is implemented and any resulting revisions to this plan are developed by the Districts in consultation with the Program governance entity, FWS and NGPC, this plan shall remain in effect. This plan shall be amended following consultation with the FWS and NGPC if a Program is not implemented. Plan revisions agreed to by FWS, NGPC and the Districts for the purpose of integrating the Districts' monitoring activities into a basin-wide Program shall be subject of a special report filed with the Federal Energy Regulatory Commission within sixty (60) days of reaching agreement on the revisions. It is the Districts' goal to complement all on-going monitoring activities on the river currently being undertaken by other agencies.

2.0 Implementation

Section 3.0 below describes a number of monitoring activities intended variously to establish baseline conditions on Project habitat lands, to monitor use of Project lands by endangered and other species, and to track species populations in the region. Not all activities are expected to be performed each year, nor does this Plan list all future monitoring possibilities. Monitoring activities for each individual year will be identified in a list developed by the Districts in consultation with FWS and NGPC.

2.1 Monitoring Oversight Committee

A Monitoring Oversight Committee consisting of one representative each from the FWS, NGPC, Central and NPPD shall be established and meet on at least an annual basis to determine monitoring activities to be performed the following year. This committee will also convene at the request of any participants to resolve issues arising from monitoring protocols or when a change in monitoring priorities is desired during the year. Changes in and additions to the monitoring activities included in this Monitoring Plan after a consensus has been reached in the Monitoring Oversight Committee. Changes in the estimated costs of monitoring activities may also be made if consensus is reached in this group. Any changes or additions to section 3.0 made by the Monitoring Oversight Committee will be reflected in the annual report described below.

2.2 Selection of Monitoring Activities to be Carried Out in a Year

The Monitoring Oversight Committee shall establish a list of activities to be accomplished in each January-December calendar year, with activities to be selected from those in Section 3.0 below or as revised pursuant to Section 3.1. The total cost of

the selected activities are formulated based on the cost cap and are not expected to exceed \$100,000 (1997 dollars). Monitoring activities may change from year to year as baseline activities are completed, or to accommodate changes in management plans for particular habitat areas, to integrate the Districts' activities into basin-wide efforts to develop or implement a Program, or to address changes in priorities identified by the consulting agencies.

2.3 Annual Report

An annual monitoring report describing activities undertaken in the previous year and the data collected shall be developed by the Districts in consultation with the FWS and NGPC will be filed with FERC by the Districts on or before April 27 of the subsequent year. Each annual monitoring report will contain an appendix detailing actual expenditures associated with monitoring activities undertaken during the reporting period. If any additions or revisions were made to the descriptions of monitoring activities in Section 3.0, including to the estimated costs of such activities, such additions or revisions will also be attached. The Districts will provide a copy of the final report to the FWS, NGPC, the Governance Committee working to develop or implement a Program, as well as to FERC.

The estimated cost for report preparation is \$5,000/year, and will be included in the total estimated costs of the monitoring plan.

3.0 Monitoring Activities

The monitoring activities noted in sections 3.1 through 3.12 will be conducted in 1999. The Monitoring Oversight Committee may revised these activities or their descriptions, and may add additional activities to this section.

3.1 Least Tern and Piping Plover Habitat Site Monitoring

Goal: To evaluate use of managed nesting habitat by least terns (*Sterna antillarum*) and piping plovers (*Charadrius melodus*).

Objective: Document the number of nests, nest success, chick survival and fledge ratios at nesting habitats managed by the Districts.

The Districts will monitor tern and plover nest sites they currently manage or manage in the future as part of their respective licenses. Monitoring will be initiated the first week of May and continue until least terns and piping plovers have abandoned the sites. Within the limits of the endangered species permits issued by the FWS and NGPC, observations will be conducted on at least a weekly basis using binoculars and/or

spotting scopes. The observations will be made from a location that provides adequate visibility and at a distance great enough to not cause disturbance to the nesting birds. Occasionally observations will be made from directly within the colony.

NPPD will monitor three constructed nesting islands between Lexington and Kearney, Nebraska, two sandpits located near Elm Creek, Nebraska, and one sandpit near Lexington, Nebraska. Central's sites are one sandpit located near Cozad, Nebraska, one sandpit located near Gothenburg, Nebraska, Project lands near the Central Diversion Dam at the confluence of the North and South Platte Rivers, the lands and shorelines of Lake McConaughy and the habitat area at Jeffrey Island between Lexington and Overton, Nebraska. Any newly created least tern and piping plover nesting sites on District properties or properties acquired under the FERC licenses will be monitored in a manner consistent with the protocol outlined for existing sites.

Location of nests at each site will be mapped on aerial photographs or maps. Nesting areas will be monitored on at least a weekly basis until no more nests, chicks or adults are present at that site. It is recommended that observers visit each site at least once during each five-day period. Observations will be of sufficient length to observe all nests, chicks, and/or fledglings.

During each visit the following will be recorded at a minimum:

- Time of day
- Weather conditions (both for the previous day and the time of observing)
- Length of visit
- Number of adult birds present
- Number of nests
- Suspected cause of any nest loss
- Number of chicks
- Number of fledged chicks
- Other species present or in the area

Observations will be made using binoculars and/or a spotting scope. All monitoring work will be in compliance with State and Federal permits. No more than eight visits to a nest will be made. Observations will be conducted when the temperature is below 90 degrees Fahrenheit. Observers will restrict activity in the vicinity of the nests to no less than 20 minutes in duration. Observers will not handle eggs or nestlings. Nests will not be marked with visible markers.

The estimated cost for monitoring these identified sites is \$22,000/year.

3.2 Nebraska State Least Tern and Piping Plover Survey

The Districts agree to participate in the annual Nebraska State survey for least terns and piping plovers when so requested by the FWS and NGPC. The Districts will make one visit to all sandpits which contain suitable nesting habitat between Odessa, Nebraska and Lake McConaughy. The Districts will also provide personnel and equipment to assist with the airboat survey of the Central Platte River from Columbus to Lexington, Nebraska. The Districts participation in the state survey will be coordinated with the FWS and NGPC following protocols suggested by NGPC.

The estimated cost for monitoring these identified sites is \$3,400/year.

3.3 Whooping Crane and Sandhill Crane Use of District Habitat Lands

Goal: Assess crane use of selected sections of the Platte River.

Objective: Document sandhill and whooping crane use of properties managed by the Districts and assist the FWS and NGPC in evaluating whooping crane use of the river in the vicinity of District managed properties.

The Districts will monitor the Cottonwood Ranch and Jeffrey Island for use by both sandhill and whooping cranes. Monitoring will begin approximately the first week in March and end the second week of April. The Districts will conduct weekly surveys of Cottonwood Ranch and Jeffrey Island to: A) determine in channel and out of channel roosting by sandhill cranes (*Grus canadensis*) and whooping cranes (*Grus americana*) and B) diurnal crane use of out of channel areas on or adjacent to District properties. Surveys will consist of overflights of the area at daybreak and ground surveys during the day.

Aerial surveys conducted at first light to document crane roosting on the Cottonwood Ranch and Jeffrey Properties will note:

Ice and flow conditions

Presence and estimated number of other species of water birds

Weather conditions of the previous night

Estimated number of cranes, estimated distance to visual obstruction, estimated channel width, and location of roost.

Ground surveys will be conducted to determine out of channel cranes use of the Properties. Surveys will be conducted during three different time periods: sunrise to 10a.m., 10 a.m. to 2 p.m., and 2 p.m. to sunset. Data recorded will include habitat

used, number of birds, major activity, other— species, and location. Observations will be made from a vehicle when possible and with binoculars and spotting scopes.

The estimated cost for these activities is \$8,500/year.

3.4 Whooping Crane Monitoring

The Districts will at the request of the FWS and/or NGPC provide qualified personnel to assist in confirmation of whooping crane sightings. The Districts may also at the request of the FWS and/or NGPC assist the FWS and/or NGPC in whooping crane site use evaluations, roost site transects and tracking of whooping cranes while along or near the South Platte, North Platte or Platte Rivers in Nebraska. The estimated cost for these activities is \$2,500 year.

3.5 Fish Population Studies

Goal: Assess fish populations and species diversity in the area of properties acquired by the Districts.

Objective: Monitor the abundance of forage fish for least terns and evaluate fish species diversity on or near areas owned/or managed by the Districts.

The Districts will monitor for fish abundance and diversity at four sites between Lexington and Odessa. These sites will be located above and below the Cottonwood Ranch and Jeffrey Island complexes managed by the Districts and in close proximity to managed least tern nesting areas. Quantitative sampling will be conducted in late spring or early summer (late May or June.) depending on flow conditions. Qualitative sampling will be conducted at five or more additional locations on or adjacent to habitat areas.

Measurements will quantify the surface area of the five different main channel habitat types present in each site (open channel, bank, snag, backwater, and isolated backwater. Sampling in the open channel will be conducted by seining an area of 25 feet by 50 feet enclosed in 1/8-inch mesh seines. At least ten replicate seine samples will be collected at each site. The other habitat types will be sampled by backpack electrofishing. When possible, five replicates will be collected in each of these four habitat types at each site.

Qualitative sampling designed to assess species diversity will be conducted with a seine and backpack electroshocker. At each location the five habitat types (seining in the open channel, electrofishing in the other four) will be sampled. In

addition, any adjacent rare or off-channel habitat types such as sloughs, ponds, and side channels, and atypical examples of the main channel such as very large snags or very deep banks will be sampled.

The estimated cost for these activities is \$19,000/year.

3.6 Shellfish Monitoring

Goal: Assess shellfish populations and species diversity in the area of properties acquired by the Districts.

Objective: Monitor the occurrence, abundance, and species diversity of freshwater mussels near areas owned/or managed by the Districts.

To establish a baseline of the occurrence, abundance, and diversity of freshwater mussels on or adjacent to the acquired properties, the Districts will conduct a survey of these habitats for freshwater mussels. This is anticipated to be a one-time activity rather than recurring every year.

Surveys will consist of visual and tactile observations of the various habitat types located on the Cottonwood Ranch and Jeffrey Island. Specimens located will be identified to species and returned. Sites where shellfish are located will be mapped. If other than individual mussels are located sampling to estimate the size and species composition of the bed will be conducted.

The estimated cost for these activities is \$2,400/year.

3.7 Water Temperature

Goal: Assess water temperature changes in relation to flow and ambient air temperatures

Objective: Monitor in-channel water temperatures near areas owned/or managed by the Districts.

In the first year, the Districts will install a continuous recording temperature probe to monitor water temperatures in a main channel adjacent to the Cottonwood Ranch and Jeffrey Island. In addition, one temperature probe will also be installed on the upstream edge of Jeffrey Island and one on the downstream edge of the Cottonwood Ranch property. The Districts will maintain these four temperature recording devices and record the data obtained, along with weather data obtained from Canaday Steam Plant and/or the Kearney Airport, and stream flows obtained from the

Overton stream gauge and the J-2 return.

The estimated cost for these activities the first year is \$4,700.

3.8 Vegetation Monitoring on District Habitat Lands

Goal: To provide baseline information on, and monitor the effects of management of these lands on plant communities.

Objective: To document the changes in plant communities related to management activities.

During 1999 the Districts will establish and sample a series of permanent plots at both the Cottonwood Ranch and Jeffrey Island. The purpose of the plots and subsequent sampling will be to establish a plant community baseline at each site, and then to document changes due to subsequent management activities.

Vegetation monitoring is expected to be conducted on an annual basis for areas of active management and naturally ephemeral landforms such as sandbars; other areas will be monitored at an interval deemed appropriate by the Monitoring Oversight Committee.

A biologist will determine the location, interval, size, and other metrics of the permanent plots to be established. Included in the monitoring will be sensitive species, indicator species, dominant species, and encroachment and survival of in channel woody vegetation.

The estimated cost for these activities is \$15,000/year.

3.9 Bird Communities

Goal: To monitor habitat management effects on bird communities.

Objective: To document the changes in bird communities related to management activities.

The Districts will conduct bird use studies of the Cottonwood Ranch and Jeffrey Island. These studies will include breeding bird, fall migrant and spring migrant bird surveys. The 1999 studies will establish baseline data from which to compare data in subsequent years following the various management activities planned for the areas. Surveys will be conducted in all habitats and using standard transect and point count methodologies.

Two spring migrant surveys will be completed between approximately April 15 and May 15, two fall migrant surveys will be conducted between approximately August 1 and November 1, and two breeding bird surveys will be conducted approximately between June 1 to June 30.

Survey points will be placed randomly and in proportion to habitats available. Surveys will be conducted using fixed area circular plots. All birds positively identified through site or song will be recorded. Birds seen between survey points and at times other than the formal surveys will be recorded to establish a species list for the site. Data recorded will include species of bird, activity, habitat, weather, and time of day.

The estimated cost for these activities is \$7,500/year.

3.10 Bald Eagles

Goal: To monitor bald eagle roosts and perches.

Objective: To monitor areas used by bald eagles as roost trees or as diurnal perches.

The Districts will conduct weekly surveys of Project waters, starting approximately January 1 and ending March 1, to monitor wintering bald eagles in areas that have been identified by previous studies as being important. The Districts will conduct two surveys between January 1 and February 15 on Cottonwood Ranch and Jeffrey Island to monitor bald eagle use of known roosts and to locate additional roosts. In addition to the number and location of the eagles, weather conditions, flows, and ice conditions will be recorded.

The estimated cost for these activities is \$4,000/year.

3.11 American burying beetle

Goal: To survey for the presence of American burying beetles on properties to be managed.

Objective: Determine management impact on American burying beetles.

The Districts will survey the Cottonwood Ranch and Jeffrey Island for the presence of the American burying beetles (Nicrophorus americanus). Surveys will be conducted in late spring and/or early summer when evening temperatures are a minimum of 50 degrees Fahrenheit. Surveys will be conducted by pit fall trapping along transects to be established at each site. The traps will be baited with carrion following the protocol

proposed by Kozal (1990) and modified by Peyton and Bedick (Peyton, 1997, Bedick, 1997).

Each transect will contain five traps spaced evenly along the transect. Traps will be checked between 6:00 and 9:00 AM each day. Trapping will continue a minimum of five consecutive days. Total number of beetles in each trap will be recorded as well as the total number of American burying beetles in each trap will be recorded. Specimens of the American burying beetle will be released immediately at least 10 meters from the traps, preferably in thick vegetation to avoid predation, desiccation, and immediate recapture. If any American Burying Beetles are found dead in the trap they will be turned over to the University of Nebraska State Museum per Federal and State permits.

The estimated cost for the initial survey is \$2,000/year.

3.12 Channel Configuration

Goal: Insure the maintenance of channel configuration characteristics for endangered species.

Objective: Monitor any changes to existing channels and evaluate if those changes are the result of habitat management activities by the District or others, and whether the changes result in improved conditions for endangered species.

To assess the changes in channel configuration the Districts will establish five permanent transects perpendicular to the flow of the river on the main channels at both Cottonwood Ranch and Jeffrey Island. Staff gauges will be installed above and below habitat areas to document stage changes related to flow. An estimation of flow effects on wetted width and depth distributions can then be made without numerous remeasurements of the transects at different flows.

Channel depth distribution, unobstructed width and wetted width will be evaluated in early April during whooping crane migration periods. Depth distribution will be developed by taking depth measurements across the channel.

The Districts will summarize flow conditions throughout the year and attempt to relate results of monitoring to any flow conditions that may have an effect.

The estimated cost for these activities is \$7,500/year.

**MONITORING ACTIVITIES SELECTED
FOR 1999 AND
ESTIMATED PROJECT COSTS**

| | |
|---|------------------|
| Monitoring of least terns and piping plovers on managed sites | \$ 22,000 |
| Annual Nebraska State least tern and piping plover survey | \$ 3,400 |
| Whooping crane monitoring | \$ 2,500 |
| Sandhill roost and diurnal monitoring | \$ 8,500 |
| Fish Population Studies | \$ 19,000 |
| Shellfish monitoring | \$ 2,400 |
| Water temperature monitoring | \$ 4,700 |
| Vegetation monitoring on District Habitat Lands | \$ 15,000 |
| Bird community monitoring | \$ 7,500 |
| Bald eagle roost and perch monitoring | \$ 4,000 |
| American burying beetle monitoring | \$ 2,000 |
| Channel configuration monitoring | \$ 7,500 |
| Reporting | \$ 5,000 |
| Total Estimated Cost for 1999 | \$103,500 |

REFERENCES CITED

- Bedick, J. 1997. Distribution and ecology of the American burying beetle (*Nicrophorus americanus*, Oliver) in south-central Nebraska. A thesis presented to the Faculty of the Graduate College at the University of Nebraska. 94pp.
- Kozol, Andrea J. 1990. Suggested survey protocol for *Nicrophorus americanus*, the American burying beetle. Report to the U.S. Fish and Wildlife Service. 6pp.
- Peyton, Mark M. 1997. Notes on the range and size of the American burying beetle (*Nicrophorus americanus*) in the dissected hills south of the Platte River in Central Nebraska. Proceedings of the 1997 Platte River Basin Ecosystem Symposium. pp. 21 - 27.