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DEPARTMENT OF  
NATURAL RESOURCES

US Department of Agriculture Farm Service Agency  
Conservation and Environmental Programs Division  
1400 Independence Ave., S.W.  
Room 4716, MS 0513  
Washington, DC 20250

Attn: Mr. Matthew Ponish, National Environmental Compliance Manager

Re: Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program Amendment Final Supplemental Programmatic Environmental Assessment (Nebraska Department of Natural Resources Contract Number 408)

Dear Mr. Ponish:

I am pleased to provide you with two printed copies of the Final Supplemental Programmatic Environmental Assessment examining potential environmental impacts from the implementation of the proposed amendment to the Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program. Also enclosed is one thumb drive with the Final PEA. As you are aware, electronic versions of these documents have been posted to the Geo-Marine SharePoint site for your use.

If you need additional information or assistance, please feel free to contact me at (757) 873-8253 ext. 203 or online at [bbishop@geo-marine.com](mailto:bbishop@geo-marine.com).

Sincerely,

Brian E. Bishop, NEPA Project Manager  
Hampton, Virginia

beb/Enclosures/1 box

2 printed Draft Supplemental PEAs  
1 thumb drive

cc: (w/ enclosures)  
Susan France, Nebraska Department of Natural Resources

cc: (w/out enclosures)  
Kurt Hellauer, GMI  
Susan Miller, GMI

Ref: 20086.00.01

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**SUPPLEMENTAL PROGRAMMATIC  
ENVIRONMENTAL ASSESSMENT**

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*Nebraska Platte-Republican Resources Area  
Conservation Reserve Enhancement Program  
Amendment*



**United States Department of Agriculture  
Farm Service Agency**

**Final  
January 2011**

## COVER PAGE

**Proposed Action:**

The United States Department of Agriculture (USDA), Commodity Credit Corporation (CCC) and the State of Nebraska have agreed to amend the Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program (CREP) to allow for: (1) enrollment of lands not included in the original agreement; (2) the State Water Use Contract to be amended, under certain conditions, to allow participants to enter into easements during the CREP contract period for the permanent retirement of irrigation on lands enrolled in CREP that would not take effect until the CREP contract expired; (3) the State to allow transfer of the consumptive use portion of a surface water appropriation associated with a Water Use Contract to an instream augmentation appropriation; and (4) the State to allow for a variance to the Water Use Contract to allow the landowner the use of a well for a *de minimis* purpose other than irrigation. The Farm Service Agency (FSA) administers the Nebraska CREP on behalf of the CCC. CREP is a voluntary land conservation program for agricultural producers.

**Type of Document:**

Final Supplemental Programmatic Environmental Assessment

**Lead Agency:**

Farm Service Agency (on behalf of CCC)

**Sponsoring Agency:**

Nebraska Department of Natural Resources

**Further Information:**

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**Comments:**

This Final Supplemental Programmatic Environmental Assessment was prepared in accordance with the Farm Service Agency National Environmental Policy Act implementation procedures found in 7 Code of Federal Regulations 799, as well as the National Environmental Policy Act of 1969, Public Law 91-190, 42 USC 4321-4347, 1 January 1970, as amended.

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NATURAL RESOURCES

The FSA will provide a public review and comment period prior to any final decision. An electronic copy of this Final Supplemental Programmatic Environmental Assessment will be available for review at: <http://public.geo-marine.com>.

Written comments regarding this assessment may be submitted to:  
Greg Reisdorff, Conservation & Environmental Programs  
Farm Service Agency  
7131 A Street  
Lincoln, NE 68510  
Or emailed to E-mail: [greg.reisdorff@ne.usda.gov](mailto:greg.reisdorff@ne.usda.gov)

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**ACRONYMS AND ABBREVIATIONS**

1-EQ	Farm Service Agency's Handbook: Environmental Quality Programs for State and County Offices Revision 2
ACS	American Community Survey
AWEP	Agricultural Water Enhancement Program
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
CCC	Commodity Credit Corporation
CEC	Commission for Environmental Cooperation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COC	County Committees
CP	Conservation Practice
CPA	Conservation Priority Area
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
2-CRP	Farm Service Agency's Agricultural Resource Conservation Program for State and County Offices
CWA	Clean Water Act
DO	Dissolved Oxygen
EI	Erodibility Index
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ERS	Economic Research Service
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FSA	Farm Service Agency
HEL	Highly Erodible Lands
MAP	Management Access Program
MGD	Million Gallons Per Day
MHI	Median Household Income
NASS	National Agricultural Statistics Service
NDA	Nebraska Department of Agriculture
NDED	Nebraska Department of Economic Development
NDEQ	Nebraska Department of Environmental Quality
NDNR	Nebraska Department of Natural Resources

**ACRONYMS AND ABBREVIATIONS (cont'd)**

NEPA	National Environmental Policy Act
NGPC	Nebraska Game and Parks Commission
NHPA	National Historic Preservation Act
NPRRA	Nebraska Platte-Republican Resources Area
NRCS	Natural Resources Conservation Service
NRD	Natural Resources District
PBHEP	Platte Basin Habitat Enhancement Program
PCI	Per Capita Income
PEA	Programmatic Environmental Assessment
PF	Pheasants Forever
PIP	Practice Incentive Payment
PL	Public Law
ROI	Region of Influence
RUSLE	Revised Universal Soil Loss Equation
SCORP	State Comprehensive Outdoor Recreation Plan
SIP	Signing Incentive Payment
TDS	Total Dissolved Solids
TES	Threatened and Endangered Species
TMDL	Total Maximum Daily Load
TSP	Technical Service Provider
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	Volatile Organic Compound
WQS	Water Quality Standards
WRP	Wetlands Reserve Program

## EXECUTIVE SUMMARY

This Supplemental Programmatic Environmental Assessment (PEA) describes the potential environmental consequences resulting from: (1) expanding the existing Nebraska Platte-Republican Resources Area (NPRRA) Conservation Reserve Enhancement Program (CREP) for lands not included in the original agreement; (2) allowing, under certain conditions, amendment of the CREP water use contracts to allow participants to enter into easements during the CREP contract period that result in the permanent retirement of irrigation rights following the completion of the CREP contracts; (3) transferring the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation; and (4) allowing for a variance to the Water Use Contract to allow the landowner the use of a well for a *de minimis* purpose other than irrigation. The environmental analysis process is designed to ensure the public is involved and informed about the potential environmental effects of a Federal action, and to help decision makers take environmental factors into consideration when making decisions related to the proposed action.

The United States Department of Agriculture (USDA) Commodity Credit Corporation (CCC) in cooperation with the Nebraska Department of Natural Resources (NDNR) proposes to implement an Amendment that would expand the current eligible NPRRA CREP area to include lands under the program that were not included in the original CREP Agreement. The current NPRRA agreement allows for enrollment of up to 100,000 acres; as of September 2010, 49,345 acres are enrolled in the NPRRA CREP, which includes part or all of 22 counties (Farm Service Agency [FSA] 2010a). The CCC would allow the remaining 50,655 acres to include additional environmentally sensitive areas along the North Platte and Platte Rivers, as well as the addition of lands along Lodgepole Creek, the South Platte River, and the upper end of Pumpkin Creek. This expansion would include part or all of an additional five counties.

Farm Service Agency administers the CREP on behalf of the CCC. The NPRRA CREP Agreement was initiated in 2005 to reduce water consumption, control erosion, alleviate water quality concerns related to high nonpoint source sediment, and nutrient, pesticide, and herbicide losses from agricultural lands, while increasing terrestrial and wetland habitat for wildlife, migrating waterfowl, and aquatic organisms within the NPRRA. A PEA entitled *Programmatic Environmental Assessment: Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program* evaluated the impacts of the current NPRRA CREP (FSA 2005). The general goals of both the current NPRRA CREP and proposed Amendment are to provide farmers and ranchers in the State an opportunity to voluntarily restore native grasslands, riparian buffers and wetland areas through financial aid and technical assistance; increase the amount of wetland acreage in the watersheds for erosion control, sediment reduction, stormwater retention, and nutrient uptake; and reduce water consumption.

This Supplemental PEA has been prepared by FSA in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality

(CEQ) regulations implementing NEPA, and 7 Code of Federal Regulations (CFR) 799 Environmental Quality and Related Environmental Concerns – Compliance with NEPA.

### **Purpose and Need for the Proposed Action**

There are four purposes for the Proposed Action. The first purpose is to implement an Amendment to the current NPRRA CREP to include additional lands along the North Platte, South Platte, and Platte Rivers, Lodgepole Creek and the upper end of Pumpkin Creek. The second purpose would allow the State Water Use Contract to be amended and under certain conditions allow CREP participants to enter into easements during the CREP contract period that would result in the permanent retirement of irrigation rights on lands enrolled in the NPRRA CREP following the completion of the CREP contract. The third purpose is to allow the State to require transfer of the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation, as long as the water is protected from other users as allowed under the State's laws. Under the fourth purpose, the State would agree to a variance to the Water Use Contract that allows the landowner the use of a well for a *de minimis* purpose other than irrigation. The maximum amount of water which would be approved under a variance is one acre-foot per year, except if there is a health issue that would affect public or private drinking water, or public safety concerns.

The Proposed Action is needed to expand protection of environmentally sensitive land within the NPRRA by providing financial incentives to encourage landowners to implement eligible Conservation Practices (CPs) on eligible lands. Specifically it is needed to: (1) reduce water consumption used for agricultural purposes; (2) alleviate water quality concerns related to high nonpoint source sediment, and nutrient, pesticide, and herbicide losses from agricultural lands; and (3) increase terrestrial and wetland habitat for wildlife, migrating waterfowl, and aquatic organisms within the NPRRA.

### **Proposed Action and Alternatives**

Under the Proposed Action, the FSA, on behalf of the CCC would implement an Amendment that expands the area currently defined in the NPRRA CREP Agreement to include additional acreage along the North Platte and Platte Rivers not originally authorized for enrollment, as well as allowing enrollment of lands along Lodgepole Creek, the South Platte River, and the upper end of Pumpkin Creek. The NPRRA agreement allows for enrollment of up to 100,000 acres and currently 49,345 acres are enrolled in the NPRRA CREP which includes part or all of 22 counties. The FSA would, on behalf of the CCC, allow the remaining 50,655 acres to include additional environmentally sensitive areas along the North Platte and Platte Rivers, as well as lands along Lodgepole Creek, the South Platte River, and the upper end of Pumpkin Creek. The number of counties that would be eligible to enroll in the NPRRA CREP would increase from 22 to 27, with the five new counties located in the North Platte, South Platte and Platte River basins. The total authorized NPRRA CREP acreage would not change.

The Amendment would also allow the NDNR, under certain conditions and when requested by CREP participants, to amend the State Water Use Contract to allow the participants to enter into easements which would require the permanent discontinuation of the use of water that had been applied to the enrolled irrigated cropland. Owners of lands enrolled in the entire CREP area would be eligible for this Water Use Contract Amendment. The easements would not take effect until after the CREP contract has expired. The Amendment would also allow the NDNR to allow transfer of the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation as long as the water is protected from other users as allowed under the State’s laws. These transfers would occur during the CREP contract period.

Because the program is voluntary, the sizes and locations of eligible parcels that would be enrolled in the program are not known. Landowners participating in the CREP would receive support for costs of installing and maintaining CPs, as well as annual rental payments for the lands enrolled. Producers would enter into 10 to 15 year contracts with USDA to install up to seven CPs approved for this CREP.

Under the No Action Alternative, the current CREP would remain in place in the NPRRA, with no expansion to other areas. The State Water Use Contract with participants would not be amended for the permanent retirement of irrigation water use on CREP lands.

**Summary of Environmental Consequences**

It is expected that there would be long term positive impacts to a number of resources associated with the implementation of the Proposed Action. Temporary minor adverse impacts to some resources may occur during preparation of lands for the establishment of CPs. Potential adverse impacts to resources would be minimized and/or mitigated in consultation with applicable or relevant regulatory agencies. A summary of the potential impacts is given in Table ES-1.

**Table ES-1. Summary of Environmental Consequences**

Resource	Proposed Action Alternative	No Action Alternative
<b>Biological Resources</b>	Long-term beneficial impacts to vegetation, wildlife, and threatened and endangered species (TES) are expected to occur from establishment of permanent vegetative communities and the creation of wildlife habitat from expansion of the NPRRA CREP to include additional acreage along the North Platte and Platte Rivers, as well as making lands along Lodgepole Creek, the South Platte River, and upper portion of Pumpkin Creek eligible for enrollment. Benefits from installing rare and declining habitat,	The existing CREP allows for the establishment of CPs that provide long-term positive impacts to TES and wildlife habitats, but these beneficial impacts would be limited to the current NPRRA CREP area. The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Proposed Action Alternative. Under the No Action Alternative, the proposed Amendment would not be implemented and the benefits to biological resources

**Table ES-1. Summary of Environmental Consequences (cont'd)**

<b>Resource</b>	<b>Proposed Action Alternative</b>	<b>No Action Alternative</b>
<b>Biological Resources (cont'd)</b>	<p>grassland covers, riparian buffers, grassed filter strips, and restoring floodplain and non-floodplain wetlands would also improve water quality which is expected to positively impact wildlife and protected species and their habitats. Instream augmentation would improve habitat for aquatic vegetation and wildlife species. A site-specific environmental evaluation would determine the presence of threatened or endangered species and any designated critical habitat. Consultation with the U.S. Fish and Wildlife Service (USFWS) and the State of Nebraska would occur prior to implementation of the practices to protect any applicable listed species.</p>	<p>from expanding the geographic extent of the CREP area would not be realized. Site-specific environmental evaluation would determine the presence of threatened or endangered species and any designated critical habitat. Consultation with USFWS and the State of Nebraska would occur prior to implementation of the practices to protect any applicable listed species.</p>
<b>Water Resources</b>	<p>Long-term positive impacts to surface and groundwater quality and quantity are expected to occur with implementation of the amended NPRRA CREP. Expansion of the NPRRA CREP would increase lands eligible for enrollment. The CPs would allow for establishment of permanent native grasses, permanent wildlife habitats, filter strips and buffers; restoration and enhancement of wetlands; and restoration of rare and declining habitat where agricultural production currently occurs. It is expected that the discontinuation of agricultural production would reduce runoff of sediment, nutrients, and agricultural chemicals that may enter surface and ground water. Increased enrollment would reduce the need for irrigation; potentially reducing withdrawals from ground and surface water an additional 15.2 billion gallons each year. Instream augmentation would improve stream flow and habitat continuity. The proposed practices are expected to stabilize floodplains through the establishment of vegetation. Wetland restoration slows and stores runoff that would otherwise directly enter the</p>	<p>The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Proposed Action Alternative. The current CREP would provide long-term positive impacts to surface water and wetlands by restoring wetlands and establishing filter strips, riparian buffers, and tree plantings. Under the No Action Alternative the additional benefits to water resources that are expected to result from the expansion of the NPRRA CREP area would not occur. Increased enrollment as a result of the expanded eligibility may not occur; reducing the amount of irrigation savings from that under the Action Alternative.</p>

**Table ES-1. Summary of Environmental Consequences (cont'd)**

Resource	Proposed Action Alternative	No Action Alternative
<b>Water Resources (cont'd)</b>	<p>floodplain, and contributes to groundwater storage.</p> <p>During the establishment of CPs, activities that remove vegetation or disturb soil may result in temporary minor increases in runoff, which may temporarily affect surface water quality. These potential impacts can be managed through the use of standard erosion control best management practices (BMPs).</p>	
<b>Soil Resources</b>	<p>Long-term positive impacts to soils are expected to result from the implementation of the Amendment to the NPRRA CREP that expands the program to include additional lands along the North Platte, Platte, and South Platte Rivers, Lodgepole Creek and the upper portion of Pumpkin Creek. Establishing long-term conservation covers in the expanded CREP would stabilize stream banks, conserve topsoil, and minimize erosion by wind and water.</p> <p>During the establishment of CPs, activities that remove vegetation or disturb soil may result in temporary minor increases in wind and water erosion. These potential impacts can be managed through the use of top soil conservation BMPs such as establishing stable grades, installing silt and erosion fencing, using mulch, and establishing temporary vegetated buffer strips.</p>	<p>The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Proposed Action Alternative. The current CREP allows for the establishment of CPs that provide long-term positive impacts to soils. Under the No Action Alternative, the proposed Amendment would not be implemented and the additional benefits to soils from reduced erosion by expanding the CREP to additional lands within the NPRRA would not be realized.</p>
<b>Socioeconomics and Recreation</b>	<p>Expansion of the CREP program to make additional lands eligible as proposed is expected to provide a slight benefit to the local economy resulting from the monies associated with the establishment and maintenance of the proposed CPs and the rental payments made to producers. The loss of agricultural lands if the balance of eligible acreage were enrolled would be approximately 0.9 percent of the cropland within the NPRRA, with the majority of</p>	<p>The potential impacts associated with the No Action Alternative are expected to be similar to those described under the Proposed Action Alternative since the overall CREP funding level has not changed. This alternative would not produce any measurable economic changes in the current NPRRA CREP region as no changes to the sales or spending patterns of the agricultural producers would result. There is no</p>

**Table ES-1. Summary of Environmental Consequences (cont'd)**

Resource	Proposed Action Alternative	No Action Alternative
<p><b>Socioeconomics and Recreation (cont'd)</b></p>	<p>this expected to be failed or abandoned cropland. A decline of approximately two percent in agricultural sales or farm production expenses per year during the CREP enrollment period could occur, yet a new equilibrium would be reached as production expenses shifted to more productive croplands. When compared to the region as a whole, this effect would not be significant. Potential impacts would be offset by increased recreation and net societal benefits of increased water quality, reduced flooding, and restored wildlife habitat. Generally, the enhancement of biological conditions that improve wildlife habitat result in both monetary and non-monetary benefits due to the increase in outdoor recreational opportunities.</p>	<p>significant negative socioeconomic or recreational impact expected from continuation of the NPRRA CREP as currently administered.</p>

## **1.0 PURPOSE AND NEED FOR THE PROPOSED ACTION**

### **1.1 Background**

The United States Department of Agriculture (USDA) Commodity Credit Corporation (CCC) proposes to implement an Amendment to the Nebraska Platte-Republican Resources Area (NPRRA) Conservation Reserve Enhancement Program (CREP). This Supplemental Programmatic Environmental Assessment (PEA) is being prepared to examine the potential environmental consequences associated with implementation of the Amendment. The NPRRA CREP is administered by USDA Farm Service Agency (FSA) and the Nebraska Department of Natural Resources (NDNR).

#### **1.1.1 The Conservation Reserve Enhancement program**

On behalf of the CCC, the USDA FSA administers the Conservation Reserve Program (CRP), the Federal government's largest private land environmental improvement program. The CRP was initiated by the Food Security Act of 1985 and is currently authorized by the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). The CRP is a voluntary program that supports the implementation of long term conservation measures designed to improve the quality of ground and surface waters, control soil erosion, and enhance wildlife habitat on environmentally sensitive agricultural land. Total CRP enrollment in Nebraska as of August 2010 includes 16,026 farms and 1,092,713 acres (FSA 2010a).

The CREP was established in 1997 under the authority of the CRP to address agriculture-related environmental issues by establishing conservation practices (CPs) on agricultural lands using funding from Federal, State, and tribal governments, as well as non-government sources. The CREP addresses State-designated high priority conservation issues in defined geographic areas such as watersheds or river basins. Producers who voluntarily enroll their eligible lands in CREP receive financial and technical assistance for establishing CPs on their land. In addition, property owners receive annual rental payments based upon the enrolled acreage. Once eligible lands are identified, site-specific environmental reviews and consultation with and permitting from other Federal agencies are completed as appropriate in accordance with FSA's Handbook: *Environmental Quality Programs for State and County Offices* (1-EQ) (FSA 2009).

#### **1.1.2 Regulatory Compliance**

This Supplemental PEA is prepared to satisfy the requirements of the National Environmental Policy Act (NEPA; Public Law [PL] 91-190, 42 U.S. Code [USC] 4321 et seq.); implementing regulations adopted by the Council on Environmental Quality (CEQ; 40 Code of Federal Regulations [CFR] 1500-1508); and FSA implementing regulations, Environmental Quality and Related Environmental Concerns – Compliance with NEPA (7 CFR 799). The intent of NEPA is to protect, restore, and enhance the human environment through well-informed Federal decisions. A PEA examining the impacts of the current NPRRA CREP was completed in 2005 (FSA 2005) and a Finding of No Significant Impact (FONSI) issued in 2005. Further, the impacts of alternatives to implement provisions of the 2008 Farm Bill were evaluated in a

Supplemental Environmental Impact Statement (EIS) completed in 2010 and a Record of Decision issued in August of 2010 (FR 34737-34738). The current Supplemental PEA tiers from the 2005 PEA and 2010 Supplemental EIS documents. A variety of laws, regulations, and Executive Orders (EO) apply to actions undertaken by Federal agencies and form the basis of the analysis prepared in this Supplemental PEA. These include but are not limited to:

- National Historic Preservation Act (NHPA)
- Endangered Species Act (ESA)
- Clean Water Act (CWA)
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands

## 1.2 Purpose and Need

The purpose of the Proposed Action is to implement an Amendment to the current NPRRA CREP. The NPRRA CREP Agreement was initiated in 2005 to improve water quantity and quality, and the enhancement of wildlife habitat through the establishment of vegetative cover to reduce irrigation water consumptive use and agricultural chemical and sediment runoff (Appendix A). A PEA entitled *Programmatic Environmental Assessment Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program* evaluated the impacts of the current NPRRA CREP (FSA 2005). The CREP is needed in Nebraska to reduce water consumption, control erosion, alleviate water quality concerns related to high nonpoint source sediment, and nutrient, pesticide, and herbicide losses from agricultural lands, while increasing terrestrial and wetland habitat for wildlife, migrating waterfowl, and aquatic organisms within the NPRRA. Under the current CREP, agricultural production on eligible land is discontinued and approved CPs are installed. Producers receive annual rental payments and are eligible for one-time incentive payments in return for establishing approved CPs. A total of 49,345 acres have been enrolled under the current NPRRA CREP as of September 2010.

The need for the Proposed Action is to expand the NPRRA CREP to allow for enrollment of lands under the program that were not originally included. At the time the CREP was established in 2005, Banner County was at its 25 percent CRP/Wetland Reserve Program (WRP) enrollment cap; since then its enrollment has dropped and County Committees (COC) may now waive continuous signup acres if the local county government concurs, including CREP, when calculating the total acres enrolled in CRP (CRP Notice-670) (FSA 2010b). Additionally, at the time of the original CREP Agreement, the lands along the South Platte in the proposed amendment were not considered. These lands would be made eligible for enrollment in an effort to increase participation in the NPRRA CREP. The new areas would include lands along Lodgepole Creek, the South Platte River and the upper end of Pumpkinseed Creek (Pumpkin Creek) (Figure 1.2-1). The Amendment would also authorize expansion of the CREP area to

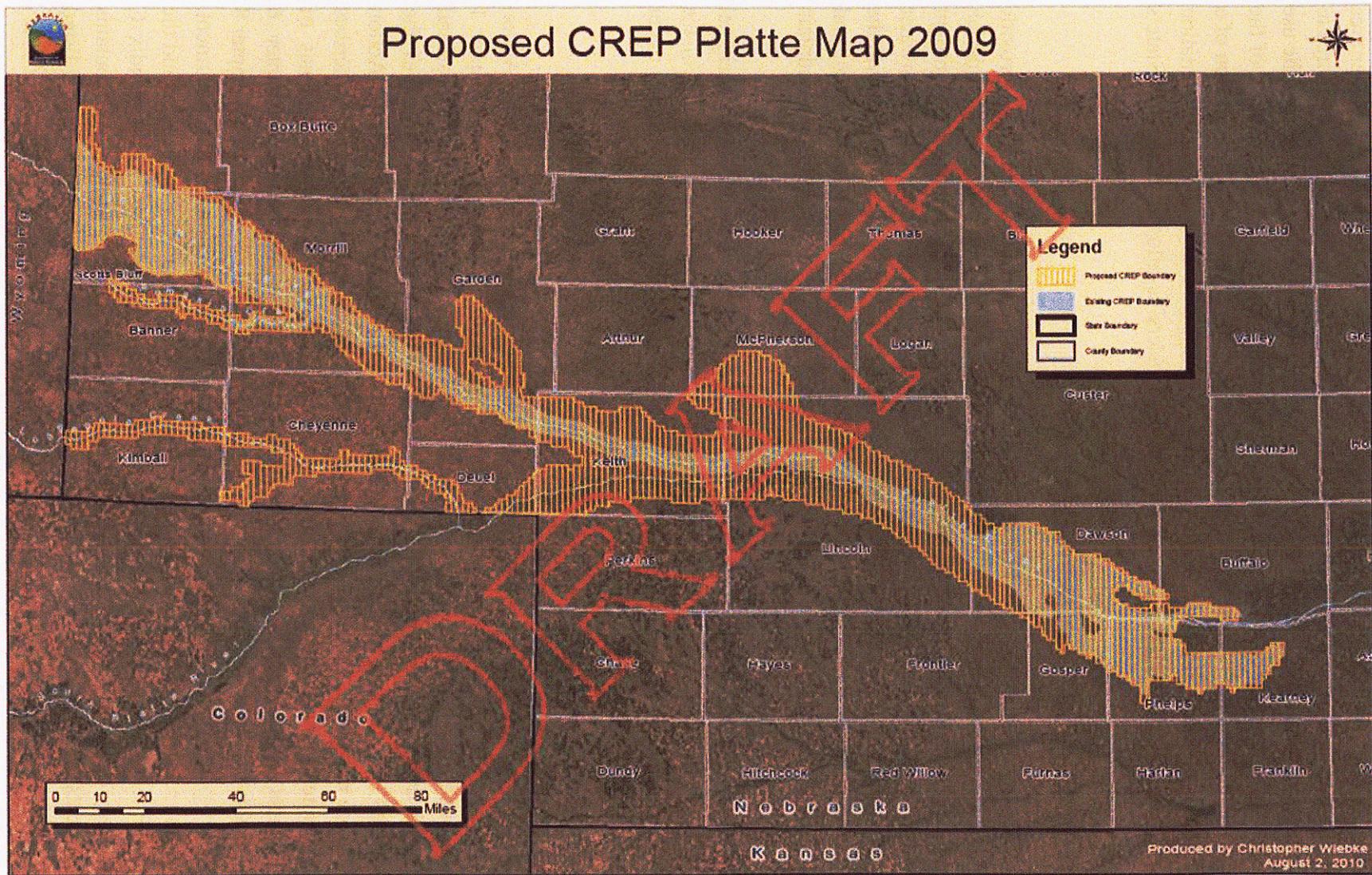


Figure 1.2-1. Proposed Expansion to the Platte-Republican Resources Area CREP

allow enrollment of lands within the North Platte and Platte Rivers' overappropriated water area to alleviate water use. The Amendment would allow for lands enrolled in the entire CREP area to be included in a separate easement which would require the permanent discontinuation of the use of water that had been applied to the enrolled irrigated cropland, following the expiration of the CREP contract. The amendment also allows for the transfer of the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation as long as the water is protected from other users as allowed under the State's laws.

### **1.3 NPRRA CREP and its Objectives**

The general goals of both the current NPRRA CREP and proposed Amendment are to provide farmers and ranchers in the State an opportunity to voluntarily restore native grasslands, riparian buffers and wetland areas through financial aid and technical assistance; and increase the amount of wetland acreage in the watersheds for erosion control, sediment reduction, stormwater retention, and nutrient uptake. Farmers and ranchers can voluntarily enter into contracts with the Federal government for 10 to 15 years, agreeing to remove enrolled lands from agricultural production and plant them to an approved CP, or restore both floodplain and non-floodplain wetlands.

The Amendment is designed to assist the State in meeting the goals as stated in the original program (Appendix A). In addition, providing the option for the permanent retirement of the lands entered into CREP from irrigation will assist the State in meeting its requirements under interstate water compacts and agreements.

### **1.4 Organization of the PEA**

This Supplemental PEA assesses the potential impacts of the Proposed Action and the No Action Alternatives on potentially affected environmental and socioeconomic resources. Chapter 1 provides background information relevant to the Proposed Action, and discusses its purpose and need. Chapter 2 describes the Proposed Action and alternatives. Chapter 3 describes the baseline conditions (i.e., the conditions against which potential impacts of the Proposed Action and alternatives are measured) for each of the potentially affected resources. Chapter 4 describes potential environmental consequences to these resources. Chapter 5 includes analysis of cumulative impacts and irreversible and irretrievable resource commitments. Chapter 6 discusses mitigation measures. Chapter 7 is a list of the preparers of this document and Chapter 8 contains a list of persons and agencies contacted during the preparation of this document. Chapter 9 contains references. Appendix A presents the 2005 NPRRA CREP agreement and the proposed Amendment; Appendix B provides descriptions of the approved CPs; Appendix C contains the agency distribution list and copies of the coordination letters; Appendix D contains the public comments received on the Draft PEA; Appendix E presents State and Federally listed

## Purpose and Need for the Proposed Action

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threatened and endangered species (TES) and critical habitat; Appendix F presents water quality data; and Appendix G includes socioeconomic data tables.

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## 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

### 2.1 Proposed Action

The FSA and the State of Nebraska propose to implement an Amendment that expands the area currently defined in the NPRRA CREP Agreement to include additional acreage along the North Platte and Platte Rivers not originally authorized for enrollment, as well as allowing enrollment of lands along Lodgepole Creek, the South Platte River, and the upper end of Pumpkin Creek (Fig 1.2-1). The number of counties that would be eligible to enroll in the NPRRA CREP would increase from 22 to 27, with the five new counties located in the North Platte, South Platte and Platte River basins (Table 2.1-1). The total authorized NPRRA CREP acreage would not change; given current enrollment, an additional 50,655 acres remain for new enrollment under the proposed Amendment. In addition, the State may enter into an amendment of the State Water Use Contract with the landowner(s) that would allow:

- An easement permanently retiring the water use on lands included under the CREP contract provided:
  - the permanent retirement takes effect at the end of the individual CREP contract;
  - there is no transfer of the surface water appropriations or ground water use—the appropriation or use is permanently retired and is not used as an offset for any new or expanded use;
  - the uses or appropriations retired are ground water uses and/or individually owned surface water appropriations; and
  - the landowner agrees to continue to adhere to all other terms of the Water Use Contract until the contract period has ended and to fully participate and adhere to the requirements of CREP until the contract has expired.
- The transfer of the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation, as long as the water is protected from other users as allowed under the State's laws.
- The State may allow a variance to the Water Use Contract to allow the landowner the use of a well for a *de minimis* purpose other than irrigation. The maximum amount of water which would be approved under a variance is one acre-foot per year, except if there is a health issue that would affect public or private drinking water, or public safety concerns.

Landowners that enter into the Water Use Contract may sell permanent easements to the Natural Resources District (NRD) in which the land is located, and forever refrain from irrigating the land and limit water use as part of the State of Nebraska Platte Basin Habitat Enhancement Program (PBHEP) or other programs.

Because program participation is voluntary, the locations and sizes of specific parcels that would be enrolled are not known. Landowners participating in the CREP would receive support for the costs of installing and maintaining CPs, as well as annual rental payments for those specific lands enrolled in the program. Table 2.1-2 summarizes components of the existing NPRRA CREP and the proposed Amendment.

**Table 2.1-1. NPRRA CREP Amendment Counties**

<b>Rivers and Tributaries</b>	<b>Counties Previously Eligible</b>	<b>Counties Eligible under the Amendment</b>
<b>Republican</b>	<ul style="list-style-type: none"> <li>• Dundy</li> <li>• Chase</li> <li>• Hayes</li> <li>• Lincoln*</li> <li>• Frontier</li> <li>• Hitchcock</li> <li>• Red Willow</li> <li>• Gosper*</li> <li>• Furnas</li> <li>• Phelps*</li> <li>• Harlan</li> <li>• Franklin</li> <li>• Webster</li> <li>• Nuckolls</li> </ul>	No Change
<b>Platte</b>	<ul style="list-style-type: none"> <li>• Keith*</li> <li>• Lincoln*</li> <li>• Dawson</li> <li>• Gosper*</li> <li>• Phelps*</li> <li>• Buffalo</li> <li>• Kearney</li> </ul>	<ul style="list-style-type: none"> <li>• McPherson</li> </ul>
<b>North Platte</b>	<ul style="list-style-type: none"> <li>• Sioux</li> <li>• Scotts Bluff</li> <li>• Morrill*</li> <li>• Garden</li> <li>• Keith*</li> </ul>	No Change
<b>Pumpkin Creek</b>	<ul style="list-style-type: none"> <li>• Morrill*</li> </ul>	<ul style="list-style-type: none"> <li>• Banner</li> </ul>
<b>Lodgepole Creek</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Kimball</li> <li>• Cheyenne</li> <li>• Deuel*</li> </ul>
<b>South Platte</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Deuel*</li> </ul>

\* Counties with multiple affected rivers or tributaries

### 2.1.1 Eligible Lands

Lands for enrollment in the proposed NPRRA CREP Amendment river basins would be required to meet the cropland eligibility criteria in accordance with policy set forth by the CRP provisions implemented in 2010 as authorized by the 2008 Farm Bill passed into law in 2008. The *FSA*

*Handbook: Agricultural Resource Conservation Program for State and County Offices (2-CRP Rev. 5) (FSA 2010c)* provides detailed information on CRP policies and eligibility criteria.

**Table 2.1-2. Summary of Components of the 2005 NPRRA CREP Agreement and the Proposed Amendment 3**

	<b>Current Agreement</b>	<b>Amendment</b>
Acreage	100,000 Total	No Change
Geographic Area	<ul style="list-style-type: none"> <li>• Upper Platte Resources Area, including the lower portion of Pumpkin Creek</li> <li>• Lower Platte Resources Area</li> <li>• Republican Resources Area</li> </ul>	Addition of: <ul style="list-style-type: none"> <li>• Lodgepole Creek</li> <li>• Upper portion of Pumpkin Creek</li> <li>• South Platte River</li> </ul>
Counties	22	5 additional (27 total)
Conservation Practices	<ul style="list-style-type: none"> <li>• CP2 Establishment of Permanent Native Grasses</li> <li>• CP4D Permanent Wildlife Habitat, Noneasement</li> <li>• CP21 Grassed Filter Strips</li> <li>• CP22 Riparian Buffer</li> <li>• CP23 Wetland Restoration - Floodplain</li> <li>• CP23A Wetland Restoration-Non-floodplain</li> <li>• CP25 Rare and Declining Habitat</li> </ul>	No Change
Contract Duration	10 to 15 years	No change
Cost Share	50% reimbursable practice cost	No change
Retirement of Irrigation	Temporary for term of CREP contract	The addition of a voluntary program in which CREP participants may enter into a State Water Use Contract for the permanent discontinuation of the water use on the enrolled cropland, management of the water contract, and non-use of any surface or well water which was used to irrigate the land prior to its enrollment under this amendment with some exceptions (See Appendix A). This agreement would not take effect until after the CREP contract has expired.

Eligible cropland must have been planted or considered planted with an agricultural commodity during four of the six crop years from 2002 through 2007; and must be physically and legally capable of being planted in a normal manner to an agricultural commodity as determined by the COC. Additionally, the offered cropland must either have a weighted average Erodibility Index (EI) for the three predominant soils of eight or higher (considered highly erodible land), land currently enrolled in CRP set to expire September 30 of the fiscal year the acreage is offered for

enrollment, or cropland located within a National or State-designated Conservation Priority Area (CPA). Marginal Pastureland is also eligible provided that one out of five-year grazing history can be documented and that adequate tree cover does not already exist. Certain upland acreage may be enrolled as a buffer for wetlands under CP23 Wetland Restoration regardless of distance from the affected watercourse.

The location, size, and number of tracts that would be enrolled in CREP would be determined by individual contracts; however, Table 2.1-3 presents acreage enrollment goals per CP. Once eligible lands are identified, site-specific environmental reviews would be completed by FSA prior to entering into contracts. Within the Platte River Basin Area, above Lake McConaughy, there is a 5,000 acre limit on lands served solely by surface water, or by a combination of surface water and ground water.

**Table 2.1-3. NPRRA CREP Acreage Enrollment Goals by Conservation Practice**

Conservation Practice	Acreage Goals
CP2, CP4D, and CP25	85,000
CP21 and CP22	10,000
CP23 and CP23A	5,000

### 2.1.2 Establish and Maintain Conservation Practices

The seven CPs selected for Nebraska are considered the best option to achieve Nebraska's CREP objectives and are based on eligibility criteria. See Appendix B for CP descriptions. FSA has established acreage limitations for CREP by State. In Nebraska, the NPRRA CREP is limited to 100,000 acres (FSA 2010c). As of September 2010, 49,345 acres are enrolled in the NPRRA CREP.

Installation and maintenance of CPs may include the following approved actions:

- removal of existing vegetation and grading, leveling and filling for site preparation;
- use of equipment to prepare seedbed including disk, harrow, cultipacker, roller or similar equipment;
- application of nutrients, minerals, and seed, including shrubs and trees;
- planting of temporary covers if necessary;
- installation of tree shelters, netting, plastic tubes, fencing or other animal damage control devices;
- seeding firebreaks, fuelbreaks, or firelanes;
- construction of structures to regulate flow and restore hydrology;
- pipelines and water facilities outside the riparian buffer;
- application of approved herbicides and pesticides;
- temporary supplemental irrigation systems.

### **2.1.3 Provide Financial Support**

Producers would enter eligible land into Federal contracts for a minimum of 10 years or no more than 15 years and would be subject to all normal CRP provisions as provided for in the CRP regulations. Landowners who enter into a voluntary CREP long-term easement will receive reimbursement at a 50 percent cost-share rate based upon FSA guidelines for the installation of CREP approved practices. The State would provide cost-share payments for 50 percent of eligible reimbursable costs for the installation of CREP approved practices. The normal Signing Incentive Payment (SIP) and Practice Incentive Payment (PIP) will be paid for CP21, CP22, CP23, and CP23A in accordance with 2-CRP guidance.

Annual rental rates based on irrigated rental rates would be paid for each eligible enrolled irrigated acre in accordance with CRP directives, with a 20 percent soil rental rate for CP21, CP22, CP23, and CP23A. Annual rental payments for dryland cropland would be based on dryland rental rates according to 2-CRP and would also receive a 20 percent soil rental rate for dryland acreage enrolled in CP21, CP22, CP23, and CP23A.

The proposed Amendment would not increase the total funding for the NPRRA CREP. The State of Nebraska agreed to contribute not less than 20 percent, nor more than 50 percent of the overall annual program costs through both cash contributions and certain in-kind services. The program is expected to cost \$158 million for optional 10 to 15-year contracts; the FSA commitment is \$122 million, with \$36 million provided by the State.

### **2.2 Public Involvement and Agency Coordination**

Scoping is a process used to identify the scope and significance of issues related to a Proposed Action while involving the public and other key stakeholders in developing alternatives and weighing the importance of issues to be analyzed in the Supplemental PEA. Those involved in the scoping process include Federal, State and local agencies. Scoping can help to resolve any conflicts or concerns prior to making a decision to implement a project.

The State FSA Office, along with NDNR, manages programs implementing the proposed Amendment to the NPRRA CREP, including public outreach. Several organizations have been and continue to be, involved in promoting the NPRRA CREP and this Amendment. These include:

- USDA FSA and Natural Resources Conservation Service (NRCS)
- NDNR
- Nebraska Department of Environmental Quality (NDEQ)
- Nebraska Game and Parks Commission (NGPC)
- Nebraska Department of Agriculture (NDA)
- Local Governments
- Regional Power and Irrigation Districts

- Regional NRDs
- Multiple Conservation Advocacy Groups

Agencies and organizations contacted concerning this Supplemental PEA and the template notification letters for the availability of both the Draft and Final PEAs are provided in Appendix C.

A Notice of Availability (NOA) for the Draft PEA was advertised in State and county FSA offices, as well as local newspapers to announce a 30-day public comment period beginning on November 15, 2010. A public meeting was held in North Platte, Nebraska on December 13, 2010. The announcement of the public meeting was also included in the Draft PEA NOA. A public website was created that provided program information, the meeting location and time, and electronic form for submitting comments via the internet. A presentation was given at the meeting followed by a comment period for attendees and was recorded by a court reporter. Printed program information and comment forms were made available at the meeting, along with cards providing the public comment website address. The meeting was attended by the FSA National Environmental Compliance Manager, State FSA representatives, and NDNR representatives. All public comments were reviewed and considered for the development of the Final PEA. The Draft PEA received only two comments during the comment period, with positive feedback supporting the program provided by NRDs within the NPRRA CREP area. Copies of the comments received are provided in Appendix D.

### **2.3 Resources Eliminated from Analysis**

Council on Environmental Quality regulations (§1501.7) state that the lead agency shall identify and eliminate from detailed study the issues which are not important or which have been covered by prior environmental review. Because the Proposed Action is an amendment to an existing CREP Agreement, the environmental impacts of which have been analyzed previously, the scope of this analysis would be limited to those resources that are potentially impacted by the changes proposed in this amendment to the NPRRA CREP. In accordance with §1501.7, issues eliminated from detailed analysis in this Supplemental PEA include the following:

#### **Noise**

Implementing the Proposed Action would not permanently increase ambient noise levels at or adjacent to the project area. Noise from heavy equipment is common on agricultural lands that could be enrolled in CREP. The potential for increased noise levels associated with implementing CPs would be minor, temporary, localized, and would cease once installation of the approved CPs was completed. Due to the long-term easements and the nature of the CPs installed on CREP lands, agricultural activity would decrease and reduce noise levels; therefore this issue has been eliminated from further analysis in this Supplemental PEA.

### **Air Quality**

The Proposed Action is not expected to adversely impact either local or regional air quality. Temporary minor impacts to local air quality as a result of soil disturbance during installation of CPs would not differ measurably from those resulting from continued use of the land for agriculture, and would not exceed ambient air quality standards. While the potential exists for minor localized improvements of air quality due to installation of the proposed CPs, the potential benefits would be so minor and unquantifiable that it would not be practicable to analyze them within this PEA. Since the implementation of the NPRRA CREP program would not result in impacts to the attainment, non-attainment, or maintenance status of any of the State's airsheds, this issue has been eliminated from further study in this Supplemental PEA.

### **Sole Source Aquifers**

Sole source aquifers are underground water sources that provide at least 50 percent of the drinking water consumed within the overlying area. There are no sole source aquifers in the State of Nebraska (Environmental Protection Agency [EPA] 2010a); therefore, this resource has been eliminated from further study in this Supplemental PEA.

### **Coastal Zones**

The proposed action and alternatives would occur within the interior U.S.; therefore, coastal zones would not be affected.

### **Prime and Unique Farmland**

The only lands eligible for enrollment are highly erodible cropland, marginal pasturelands, or wetlands that do not meet the definition of Prime and Unique Farmland. The Farmland Protection Policy Act of 1981 is therefore not applicable.

### **Environmental Justice**

Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations was issued by President Clinton in 1994. Interim Rule, 7 CFR Part 1410 Conservation Reserve Program, has been reviewed by the USDA and the FSA and certified according to Departmental Regulation 4300-4. With the recent acceptance and clearance of this regulation through USDA, individual analysis for each potential implication of a CRP action in regard to Environmental Justice is no longer needed. This finding is based on the following: (1) eligibility criteria for CRP are sound and reasonable for the distribution of Federal funds. Because the criteria for participation are being established by regulatory means, there would be no subjective component inherent in it to obscure the fair and equitable distribution of funds; and, (2) use of the State committees or State offices to review local decisions made at the county office level aids in the checks and balances and helps to prevent discriminatory behavior or favoritism. In addition, county FSA committees are required to ensure that all groups of producers are represented on the county committee, including females and minorities. The county committee will recommend a county committee advisor (previously

termed “minority advisor”) as necessary to ensure that the interests of under-represented producers are fairly represented. This includes the appointment of a tribal representative as a county committee advisor to represent Native American interests in the county or area. Environmental Justice is thus eliminated from analysis.

### **Cultural Resources**

The potential impacts of the NPRRA CREP to cultural resources were evaluated in the 2005 CREP PEA (FSA 2005). This Supplemental PEA does not address specific locations to be enrolled in the CREP at this time; therefore, specific cultural resources are not analyzed. As with all CREP land enrollment, site-specific environmental evaluations would be conducted prior to approval of any CREP contracts during the conservation planning process. The likely impact of expanded CREP enrollment on cultural resources would not be greater than normal agricultural practice since the lands eligible for the program are required to have been planted or considered planted to an agricultural commodity during four of the six years from 2002 to 2007.

### **Other Protected Resources**

CREP acreage can only be enrolled on privately owned lands; therefore, there is no potential for impacts to National Natural Landmarks, Federal Wilderness or Wilderness Study Areas, National or State parks or forests, or wildlife refuges. Likewise, within the selected watersheds, there are no rivers listed as part of the National Wild and Scenic Rivers system. Site specific environmental evaluation prior to CREP contract execution would identify the potential for negative indirect impacts to adjacent other protected resources and compliance with applicable laws and regulations would be ensured by consulting the affected agencies with jurisdiction and inclusion of avoidance, minimization, or mitigation measures in the conservation plan. These other protected resources have therefore been eliminated from further detailed analysis.

## **2.4 Alternatives Selected for Analysis**

### **2.4.1 Proposed Action Alternative**

Under the Proposed Action Alternative, the Amendment would be fully implemented. The current CREP would be expanded to bring new areas along Lodgepole Creek, the South Platte River and the upper end of Pumpkin Creek lands under the program that were not originally included due to acreage limitations imposed at the time the CREP was originally created, authorize enrollment of lands along the North Platte and Platte rivers to alleviate the overappropriated water use in this area, and allow for lands enrolled in the entire CREP area to be included under agreements for permanent retirement from irrigation, provided they meet certain criteria. Because the permanent retirement of irrigation would not take effect until after completion the CREP contract, is voluntary, and would not involve Federal funds, its impacts are assessed in Chapter 5: Cumulative Effects. Conservation practices would be established and maintained on eligible lands and producers would receive one-time and annual rental and maintenance payments. The total cost of the program would remain at \$158 million.

**2.4.2 No Action Alternative**

Under the No Action Alternative, the current NPRRA CREP would remain in place in the NPRRA; with the project area encompassing the North Platte, Platte and Republican Rivers and specific tributaries in southern and western Nebraska. The impacts of the current CREP were assessed in a PEA completed in 2005 and are discussed in this Supplemental PEA in order to provide a baseline against which the impacts of the Proposed Action can be assessed.

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### **3.0 AFFECTED ENVIRONMENT**

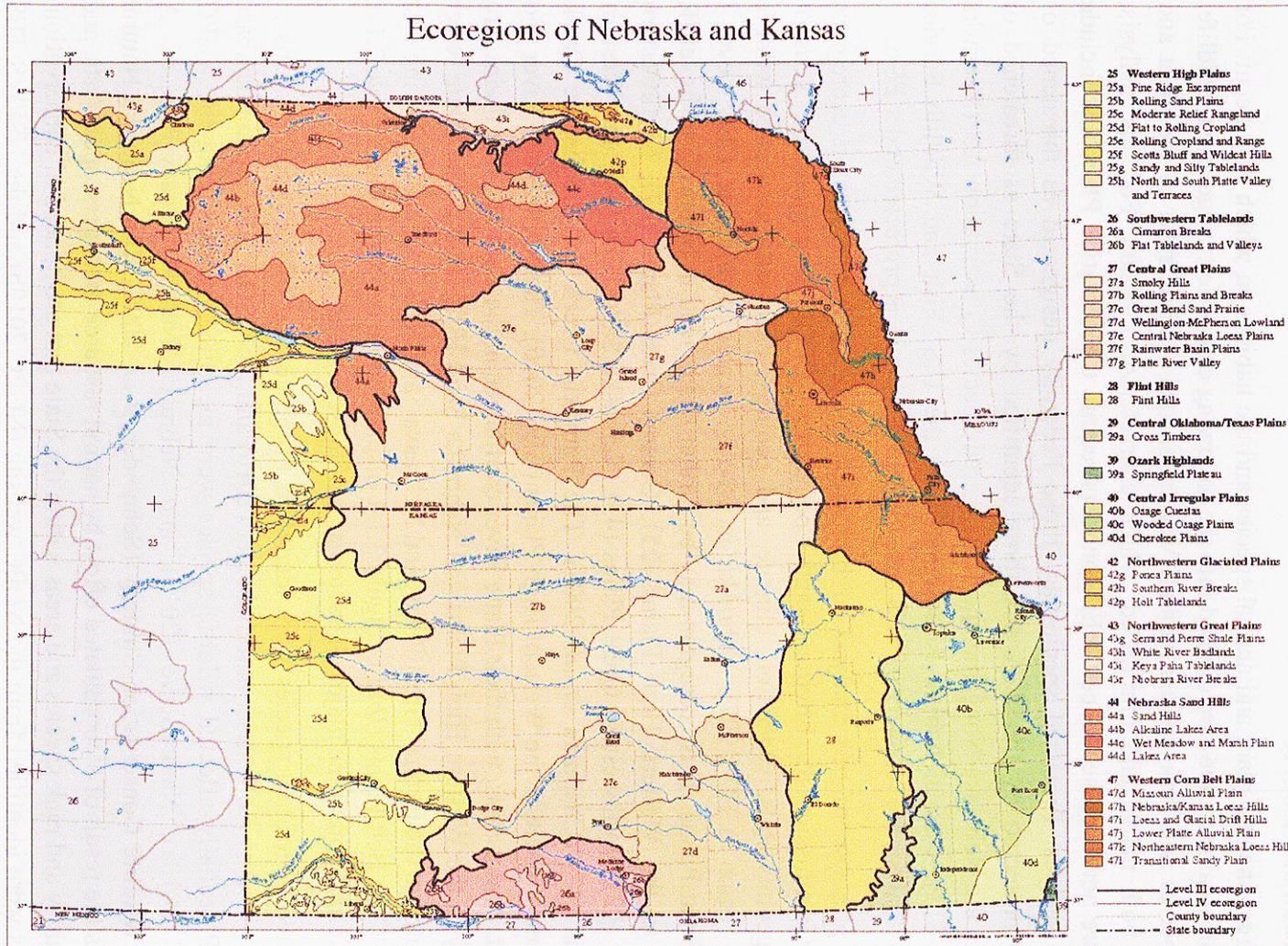
#### **3.1 Biological Resources**

##### **3.1.1 Definition of Resource**

Biological resources include plant and animal species and the habitats in which they occur. For this analysis, biological resources are divided into the following categories: vegetation; wildlife; and protected species and their critical habitat. Vegetation and wildlife refer to the plant and animal species, both native and introduced, which characterize a region. For this analysis, noxious weeds are not discussed since CREP contracts require Conservation Plans that include control of such species. Protected species are those Federally designated as threatened or endangered and protected by the ESA and those identified by the State as threatened or endangered under the Nebraska Nongame and Endangered Species Conservation Act (Nebraska Statute §37-801-811). Critical habitat is designated by the U.S. Fish and Wildlife Service (USFWS) as essential for the recovery of TES and, like those species, is protected under ESA.

The organizing principle of this analysis of biological resources is based upon ecoregions defined by the Commission for Environmental Cooperation (CEC). Ecoregions are areas of relatively homogenous soils, vegetation, climate, and geology, each with associated wildlife adapted to that region (CEC 1997). Nebraska is wholly located within one CEC Level I Ecoregion, the Great Plains. This ecoregion may be further subdivided in Nebraska to Level III classes defined as the Western High Plains (25), Central Great Plains (27), Northwestern Glaciated Plains (42), Northwestern Great Plains (43), Nebraska Sand Hills (44), and Western Corn Belt Plains (47) (Chapman *et al.* 2001). The Pumpkin Creek and Lodgepole Creek watersheds are entirely within the Western High Plains (CEC 2010). The North Platte River and South Platte River watersheds, with their Platte River confluence in the Central Great Plains, are located primarily in the Western High Plains and Nebraska Sand Hills (*Ibid.*). The Platte River watershed is located in the Central Great Plains and Nebraska Sand Hills, eventually flowing east into the Western Corn Belt Plains (*Ibid.*). Figure 3.1-1 displays these ecoregions and Table 3.1-1 presents a brief description of the major characteristics of these regions.

Potentially affected vegetation species were identified in the context of ecological systems in Nebraska as described by Rolfsmeier and Steinauer (2010) and the USDA NRCS plant database (NRCS 2010). Potentially affected wildlife species were identified by consulting the NGPC website (NGPC 2010a), NatureServe (2010), and Nebraska Natural Legacy Project: A Comprehensive Wildlife Conservation Strategy (Schneider *et al.* 2005). The Nebraska Natural Legacy Project is the result of a coordinated effort by natural resource managers, specialists, and the public to identify and rank species and areas within the State that are in need of conservation. Protected species were identified from the NGPC website (NGPC 2010b) and the USFWS TES System website (USFWS 2010a).



Source: Chapman *et al.* 2001

**Figure 3.1-1. Ecoregions of Nebraska and Kansas**

**Table 3.1-1. Level III Ecoregions within Nebraska**

<b>Ecoregion</b>	<b>Description</b>
<b>Western High Plains (25)</b>	Higher and drier than the Central Great Plains to the east, and in contrast to the irregular, mostly grassland or grazing land of the Northwestern Great Plains to the north, much of the Western High Plains comprises smooth to slightly irregular plains having a high percentage of cropland. Grama-buffalo grass is the potential natural vegetation in this region as compared to mostly wheatgrass-needlegrass to the north, Trans-Pecos shrub savanna to the south, and taller grasses to the east. The northern boundary of this ecological region is also the approximate northern limit of winter wheat and sorghum and the southern limit of spring wheat.
<b>Central Great Plains (27)</b>	The Central Great Plains are slightly lower, receives more precipitation, and are somewhat more irregular than the Western High Plains to the west. Once grassland, with scattered low trees and shrubs in the south, much of this ecological region is now cropland, the eastern boundary of the region marking the eastern limits of the major winter wheat growing area of the United States.
<b>Northwestern Glaciated Plains (42)</b>	The Northwestern Glaciated Plains ecoregion is a transitional region between the generally more level, moister, more agricultural Northern Glaciated Plains to the east and the generally more irregular, dryer, Northwestern Great Plains to the west and southwest. The western and southwestern boundary roughly coincides with the limits of continental glaciation. Pocking this ecoregion is a moderately high concentration of semi-permanent and seasonal wetlands, locally referred to a Prairie Potholes.
<b>Northwestern Great Plains (42)</b>	The <i>Northwestern Great Plains ecoregion encompasses the Missouri Plateau section of the Great Plains. It is a semiarid rolling plain of shale and sandstone punctuated by occasional buttes. Native grasslands, largely replaced on level ground by spring wheat and alfalfa, persist in rangeland areas on broken topography. Agriculture is restricted by the erratic precipitation and limited opportunities for irrigation.</i>
<b>Nebraska Sand Hills (44)</b>	The Nebraska Sandhills comprise one of the most distinct and homogenous ecoregions in North America. One of the largest areas of grass stabilized sand dunes in the world, this region is generally devoid of cropland agriculture, and except for some riparian areas in the north and east, the region is treeless. Large portions of this ecoregion contain numerous lakes and wetlands and have a lack of streams.
<b>Western Corn Belt Plains (47)</b>	Once covered with tallgrass prairie, over 75 percent of the Western Corn Belt Plains is now used for cropland agriculture and much of the remainder is in forage for livestock. A combination of nearly level to gently rolling glaciated till plains and hilly loess plains, an average annual precipitation of 63-89 cm, which occurs mainly in the growing season, and fertile, warm, moist soils make this one of the most productive areas of corn and soybeans in the world. Major environmental concerns in the region include surface and groundwater contamination from fertilizer and pesticide applications as well as impacts from concentrated livestock production.

Source: Omernik 2007

### 3.1.2 Affected Environment

#### 3.1.2.1 Vegetation

Climate greatly affects vegetation type and the health and vigor of plants. The average length of the growing season, or freeze-free period, in Nebraska ranges from 170 days in the southeast to 120 days in the northwest (National Agricultural Statistics Service [NASS] 2010a). Average annual precipitation diminishes rather rapidly from east to west across the State, ranging from approximately 30 inches in the southeast to 17 inches in the west. Across the State, the average annual precipitation declines about one inch for every 22 miles. Rainfall is concentrated in the warm months; 75 percent occurs between April and September, peaking in June (*Ibid.*). Lying near the middle of the continent, Nebraska experiences temperature extremes, with hot summers and cold winters (*Ibid.*). The State is also prone to severe weather patterns such as blizzards, droughts, and frequent winds.

Nebraska is entirely within the Great Plains ecoregion. It is distinguished by relatively little topographic relief; grasslands and a paucity of forests; and subhumid to semiarid climate (CEC 1997). Rolfsmeier and Steinauer (2010) identified 19 Ecological systems in Nebraska including; five upland forest, woodland, and shrubland systems; five upland herbaceous systems; one riparian system; six wetland systems; and two upland sparsely vegetated systems. Forested systems generally occur in the eastern and northern portion of the state, scrublands occur in the north-western portion, and grasslands dominate the central, southern and western portions of the state.

Nebraska contains tallgrass, mixed-grass, and shortgrass prairies. The mixed-grass prairie is a transition zone between tallgrass and shortgrass prairies, thus it is comprised of many species characteristic of other prairie types. Warm-season grasses are generally perennial bunch grasses (big and little bluestem [*Andropogon gerardii* and *Schizachyrium scoparium*]; switchgrass [*Panicum virgatum*]; sideoats and blue grama grasses [*Bouteloua curtipendula* and *Bouteloua gracilis*]; buffalograss [*Bouteloua dactyloides*]; and indianguass [*Sorghastrum nutans*]) that grow during warmer months. Cool-season grasses (fescue [*Festuca* spp.]; Canada wildrye [*Elymus* spp.]; introduced perennial ryegrass [*Lolium perenne*]; and wheatgrass [*Agropyron* spp.]) actively grow during cooler temperatures and are tolerant of cold temperatures. While a large portion of native prairie in Nebraska has been converted to other land uses, especially cropland and introduced pasture, about two percent of native tallgrass prairie and a little over half of the shortgrass prairie still remains in Nebraska. These prairies have historically experienced a natural disturbance at an interval of three to five years in the form of fire. However, through settling and development, this historical disturbance has been suppressed (Umbanhowar 1996). In fire-protected valleys and bluffs, some woody shrub and trees species occur with cottonwood (*Populus* spp.) and willow (*Salix* spp.) in wet areas, and oak and hickory in dry areas.

Forests and woodlands in Nebraska are predominately deciduous and are comprised of species such as bur oak (*Quercus macrocarpa*); chinkapin oak (*Q. muhlenbergii*); red oak (*Q. rubra*);

black oak (*Q. velutina*); basswood (*Tilia americana*); hickory (*Carya* spp.); ironwood (*Ostrya virginiana*); hackberry (*Celtis occidentalis*); paper birch (*Betula papyrifera*); green ash (*Fraxinus pennsylvanica*); and American elm (*Ulmus americana*) (Rolfsmeier and Steinauer 2010). Ponderosa pine (*Pinus ponderosa* var. *scopulorum*) is the primary dominant conifer in at least one system and red cedars (*Juniperus scopulorum*; *J. virginiana*) occur in the understory of many systems (*Ibid.*).

Nebraska depends on agriculture as the primary source of wealth and its dominant industry. In 2009, farms and ranches in Nebraska utilized 45.6 million acres (93 percent) of the state's total area (NASS 2010b). The leading crops grown in Nebraska, encompassing 16.6 million acres, are corn (*Zea mays*), soybeans (*Glycine max*), winter wheat (*Triticum* spp.) and alfalfa (*Medicago sativa*) (*Ibid.*). Crops are generally distributed as: corn and alfalfa statewide; soybeans in the eastern one-half of the state; wheat in the southern and western portions of the state; specialty crops of dry edible beans and sugarbeets (*Beta vulgaris*) in the western irrigated fields; and wild hay in the north-central sand hills (*Ibid.*).

#### **3.1.2.2 Wildlife**

Nebraska is positioned in the center of the U.S. transitioning from eastern forests to Great Plains grasslands making it rich with biodiversity (Schneider *et al.* 2005). Nebraska's native fauna includes more than 60 amphibians and reptile species, including salamanders, toads, frogs, turtles, lizards, and snakes; 80 fish species, including catfish, sunfish, trout, suckers, minnows, dace, gar, pike, bass, shiners, and darters; 400 bird species, including waterfowl, cranes, shorebirds, upland game birds, songbirds, and raptors; 95 mammal species, including pronghorn (*Antilocapra americana*), elk (*Cervus canadensis*), deer (*Odocoileus virginianus* and *Odocoileus hemionus*), and black bear (*Ursus americanus*), beaver (*Castor canadensis*), bobcat (*Lynx rufus*), desert and eastern cottontails (*Sylvilagus audubonii* and *Sylvilagus floridanus*), squirrels and other rodents; and tens of thousands of invertebrate species, including butterflies, moths, grasshoppers, locusts, mayflies, springtails, dragonflies, damselflies, and true bugs (NGPC 2010a; NGPC 2010b). Within the nineteen ecological systems classified by Rolfsmeier and Steinauer (2010), there are 83 natural community types, including 48 upland types and 35 wetland types, creating numerous niches and habitats that meet the needs of a variety of species.

#### **3.1.2.3 Threatened and Endangered Species and Critical Habitat**

There are over 600 species in need of conservation according to the Nebraska Legacy Project (Schneider *et al.* 2005). Of these species, 80 have been identified as globally or nationally most at-risk of extinction based on criteria outlined in the Nebraska Legacy Project.

Federal and State listed species are protected at the Federal level by the ESA and at the State level by the Nebraska Nongame and Endangered Species Conservation Act (Nebraska Statute §37-801-811). In Nebraska, 11 wildlife species and four plant species are considered endangered or threatened by the USFWS in accordance with the ESA (USFWS 2010a). Twenty wildlife and seven plant species are considered endangered or threatened by the State of Nebraska (NGPC

2010b). Although Federal and State candidate species were not considered for purposes of this assessment, two of the State listed species are candidate species for Federal protection (*Ibid.*). See Appendix E for Federal and State TES occurring in the five counties that would be included under the NPRRA CREP Amendment and changes to the Federal and State TES and critical habitats included in Appendix C of the previous NPRRA CREP PEA (FSA 2005).

Critical habitat designations, as defined by ESA, for whooping crane (*Grus americana*), piping plover (*Charadrius melodus*), Topeka shiner (*Notropis topeka*), and Salt Creek tiger beetle (*Cicindela nevadica lincolniiana*) occur in Nebraska (USFWS 1978). Piping plover critical habitat occurs in Nebraska on prairie alkali wetlands and surrounding shoreline; river channels and associated sandbars and islands; and reservoirs and inland lakes and their sparsely vegetated shorelines, peninsulas, and islands along the Platte, Loup, and Niobrara Rivers. Critical habitat for whooping crane is designated in a three-mile wide strip along the Platte River in Dawson, Buffalo, Hall, Phelps, Kearny, and Adams Counties and may include some upland habitats where CRP lands potentially could occur (*Ibid.*). Salt Creek tiger beetle critical habitat is in Lancaster and Saunders Counties, which are outside the program area for the purposes of this assessment (USFWS 2010b).

## **3.2 Water Resources**

### **3.2.1 Definition of the Resource**

The principal law governing pollution of the nation's surface water resources is the Federal Water Pollution Control Act of 1972, more commonly known as the CWA. The Act utilizes water quality standards (WQS), permitting requirements, and monitoring to protect water quality. The EPA sets the standards for water pollution abatement for all waters of the U.S. under the programs contained in the CWA but, in most cases, gives qualified States the authority to issue and enforce permits. For this analysis, water resources include surface water quality, groundwater, wetlands, and floodplains.

Surface waters are defined by EPA as waters of the United States and are primarily lakes, rivers, estuaries, coastal waters, and wetlands. Impaired waters are waterbodies that have chronic or recurring monitored violations of State water quality criteria. Under section 303(d) of the CWA, States must publish lists (referred to as 303(d) Impaired Waters List) of those rivers, streams, and lakes that do not meet or are not expected to meet applicable WQS. Total maximum daily loads (TMDLs) of pollutants for the listed waterbodies must be established by the State and approved by EPA (EPA 2010b). A TMDL is a calculation of the maximum amount of a pollutant a waterbody can receive and still be considered as safely meeting water quality criteria. States also assess the trophic level of surface waters. The trophic level is a measure of nutrients and biological productivity and ranges between oligotrophic (low nutrient) and excessive (hyper) eutropy (Cole 1994). Eutrophic lakes have a high level of nutrients, which increases the amount of biologic productivity, mesotrophic have moderate levels of nutrients, whereas hypertrophic

lakes have excessive amount of nutrients which commonly leads to algae blooms and oxygen depletion.

Groundwater is the water that is stored in, and moves through, spaces in underground layers of soil, sand and rock called aquifers (The Groundwater Foundation 2009). The speed at which water moves through an aquifer is dependent on size of the spaces in the soil or rock and how these spaces are connected. The water in aquifers is brought to the surface through a spring, or is discharged into lakes and streams. It can also be brought to the surface through a well. Groundwater is recharged by rain and snow melt, as well as from water that leaks from waterbodies (e.g., lakes, streams, wetlands, etc.). Shortages occur when groundwater is used faster than it is recharged. In Nebraska, the major sources of groundwater pollution include agricultural chemicals, runoff from industrial facilities, leaking underground storage tanks, petroleum and chemical spills, solid waste landfills, wastewater lagoons, brine disposal pits, and septic systems (EPA 2000).

Wetlands are defined by the U.S. Army Corps of Engineers (USACE) as areas characterized by a prevalence of vegetation adapted to saturated soil conditions and identified based on specific soil, hydrology, and vegetation criteria defined by USACE (1987). Riparian wetlands are associated with running water systems found along rivers, creeks, and drainage ways, and have a defined channel and floodplain. The majority of wetlands found in Nebraska are classified as Palustrine; these are wetlands that are nontidal, dominated by trees, shrubs and emergent vegetation. They are more commonly referred to as swamps, marshes, fens and bogs. In Nebraska, these are typified by playa wetlands (NGPC 2005). These are freshwater wetlands that occupy small clay-lined depressions that are temporarily and seasonally flooded. Wetlands filter excess nutrients, sediment, and toxic materials from agricultural runoff before discharging to waterways. Additionally, water is trapped in wetlands and slowly released over floodplains, buffering uplands from storm surges (EPA 2006).

Floodplains are defined by the Federal Emergency Management Agency (FEMA) as those low lying areas that are subject to inundation by a 100-year flood, a flood that has a one percent chance of being equaled or exceeded in any given year. Activities within a floodplain have a potential to affect the flooding of lands downstream of the activity. Based on EO 11988 Floodplain Management, Federal agencies are required to avoid, to the extent possible, adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development. Nebraska further defines a floodplain as an area adjoining a watercourse or drainway that has been or may be covered by flood waters, and is divided into two districts: floodway and fringe (Nebraska Code, Chapter 31 §§1008 through 1010). The floodway is the channel of a watercourse or drainway and adjacent lands that are necessary to be reserved to allow for the discharge of the base flood, without a cumulative increase of the water surface elevation more than a reasonable height. The fringe is that portion of the floodplain of the base flood that is outside of the floodway. Floodplain development permits are required prior to any activities such as paving and grading to ensure the modification

does not pose the potential to obstruct flood flows (NDNR 2009a). Floodplains provide for flood and erosion control support that helps maintain water quality and contribute to sustaining groundwater levels. Floodplains also provide habitat for plant and animal species, recreational opportunities and aesthetic benefits.

### **3.2.2 Affected Environment**

#### **3.2.2.1 Surface Water**

Nebraska has approximately 24,000 miles of rivers and streams and 280,000 acres of lakes, ponds and reservoirs. All the major rivers in Nebraska drain into the Missouri River Basin (NDEQ 2006). The major rivers included in the current NPRRA CREP are the North Platte, Platte, and Republican Rivers. The North Platte River Basin covers approximately 7,117 square miles, the Platte River Basin approximately 5,130 square miles and the Republican River Basin approximately 9,712 square miles. A more detailed description is contained in the 2005 NPRRA CREP PEA (FSA 2005). Under the proposed Amendment, lands along the South Platte River and one of its major tributaries Lodgepole Creek would be eligible for enrollment. Likewise, lands along the upper portion of Pumpkin Creek, a major tributary of the North Platte River, would also be included. The South Platte River originates in Colorado and flows 450 miles northeast, entering Nebraska in Deuel County. The South Platte River ends at the confluence with the North Platte River near North Platte, Nebraska. Lodgepole Creek begins in Wyoming and flows east for 212 miles, through the southern portion of the Nebraska panhandle, until its confluence with the South Platte River in the northeast corner of Colorado, just south of the Nebraska border. The upper portion of Pumpkin Creek lies within Banner County and has a course of 27 miles. The lower portion of Pumpkin Creek, from the Banner/Morrill County border until it reaches the North Platte River, is included in the current NPRRA CREP Agreement.

The NDEQ has assessed 7,825 miles of streams and 137,293 acres of lakes, ponds and reservoirs for beneficial uses which include recreation, public drinking water supply, aquatic life, agricultural water supply, and aesthetics (EPA 2010c). Streams and lakes are considered impaired based on parameters such as levels of biological agents (e.g., pathogens, algae, etc.), pesticides, dissolved oxygen (DO), nutrients, metals, and sediment. Table 3.2-1 shows the percentage of impaired waters within the State.

In Nebraska, 104 rivers, streams and creeks, and 73 lakes, ponds and reservoirs are listed as impaired. The major causes of impairment are pathogens which have impaired 62 waterbodies, followed by algal growth (46 waterbodies), as well as fish consumption advisories, metals, pesticides and pH each impairing more than 20 waterbodies (EPA 2009). Appendix F presents the most recent surface water quality assessment of the surface water in the proposed CREP Amendment. Nebraska currently has 92 approved TMDLs, most of which are for the pathogens such as *E. coli*. The majority of impairments come from natural sources and non-point source

pollution, with agriculture accounting for 368 miles of impaired rivers and streams and 8,195 acres of impaired lakes, ponds and reservoirs (EPA 2010c).

**Table 3.2-1. Nebraska Assessed Waters for State Designated Use**

<u>State Designated Use</u>	<u>Rivers, Streams and Creeks (Total Miles Assessed)</u>	<u>Percent Good</u>	<u>Percent Impaired</u>	<u>Lakes, Ponds and Reservoirs (Total Acres Assessed)</u>	<u>Percent Good</u>	<u>Percent Impaired</u>
Aesthetics	5,303.86	100.00	0	126,271.40	71.56	28.44
Agricultural Water Supply-Class A	5,240.08	99.71	0.29	127,251.10	99.49	0.51
Agricultural Water Supply-Class B	65.30	76.26	23.74			
Cold Water Aquatic Life (Class A)	164.68	57.92	42.08			
Cold Water Aquatic Life (Class B)	1,391.15	66.30	33.70	35,803.00	0.23	99.77
Fish Consumption	1,280.54	40.68	59.32	120,632.90	90.64	9.36
Industrial Water Supply	357.10	100.00	0	73,300.00	100.00	0
Primary Contact Recreation	4,038.54	33.12	66.88	122,416.60	99.38	0.62
Protection Of Aquatic Life	7,617.69	65.80	34.20	126,875.40	59.39	40.61
Public Drinking Water Supply	667.55	80.62	19.38	30,000.00	100.00	0
Warm Water Aquatic Life (Class A)	3,608.20	67.89	32.11	93,594.00	48.97	51.03
Warm Water Aquatic Life (Class B)	2,281.17	60.82	39.18			

Source: EPA 2010c

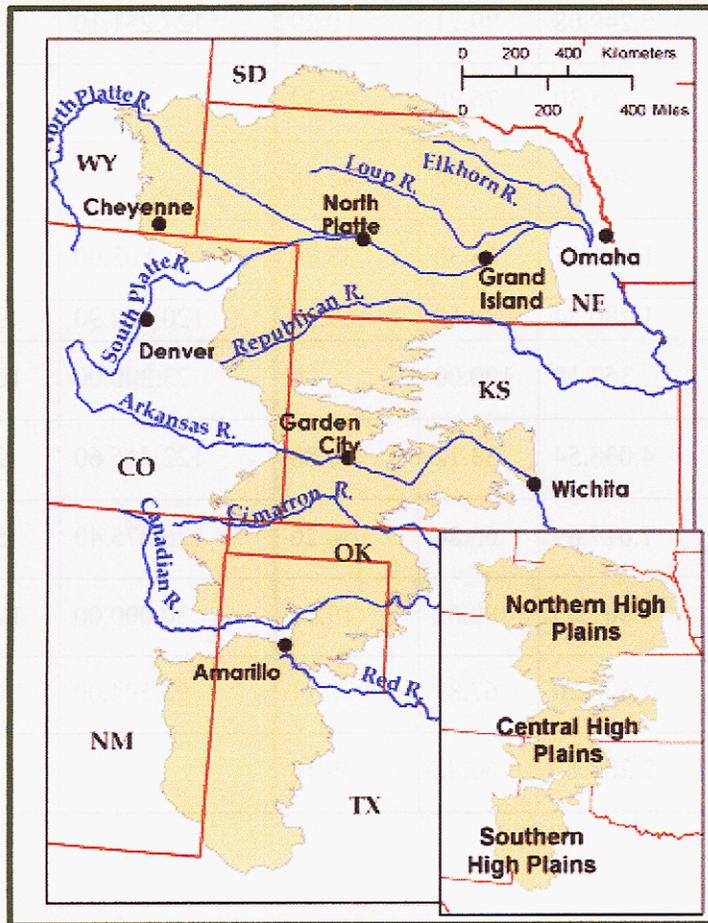
### 3.2.2.2 Groundwater

The Great Plains (Ogallala) aquifer system underlies 175,000 square miles in parts of eight States, with the majority of Nebraska lying on the aquifer (U.S. Geological Survey [USGS] 2007) (Figure 3.2-1). Approximately 30 percent of the groundwater used for irrigation in the U.S. is removed from the Ogallala aquifer; withdrawals in 2000 were 17 billion gallons per day. In Nebraska, irrigation accounted for 94.8 percent of groundwater withdrawals in 2005, corresponding to approximately 7,310 million gallons per day (MGD) (USGS 2009).

Analyses of groundwater quality conducted in 1997 and 2002 through 2004 showed that, while samples rarely exceeded EPA public drinking water standards for the 13 constituents measured,

wells sampled in the Platte River Valley and Eastern Nebraska exceeded WQS more often than those of the surrounding Ogallala Formation and Sand Hills (Stanton and Qi 2007). Of the samples collected from the Platte River Valley, the following constituents had concentrations higher than the standard:

- nitrate - 31 percent;
- manganese - 22 percent;
- sulfate - 19 percent;
- uranium - 26 percent; and
- dissolved solids - 38 percent.



Source: Qi and Gurdak 2006

**Figure 3.2-1. Location of the High Plains (Ogallala) Aquifer**

Similarly, in samples from the Platte River Valley, 78 percent had detectable levels of pesticides and 22 percent had at least one detectable volatile organic compound (VOC) (Stanton and Fahlquist 2006). A similar study found that nitrate concentrations and pesticide detections were more frequent at study sites in the irrigated agricultural lands of Nebraska (where the primary crops are corn and soybean) than at study sites in the agricultural lands of Texas, where the

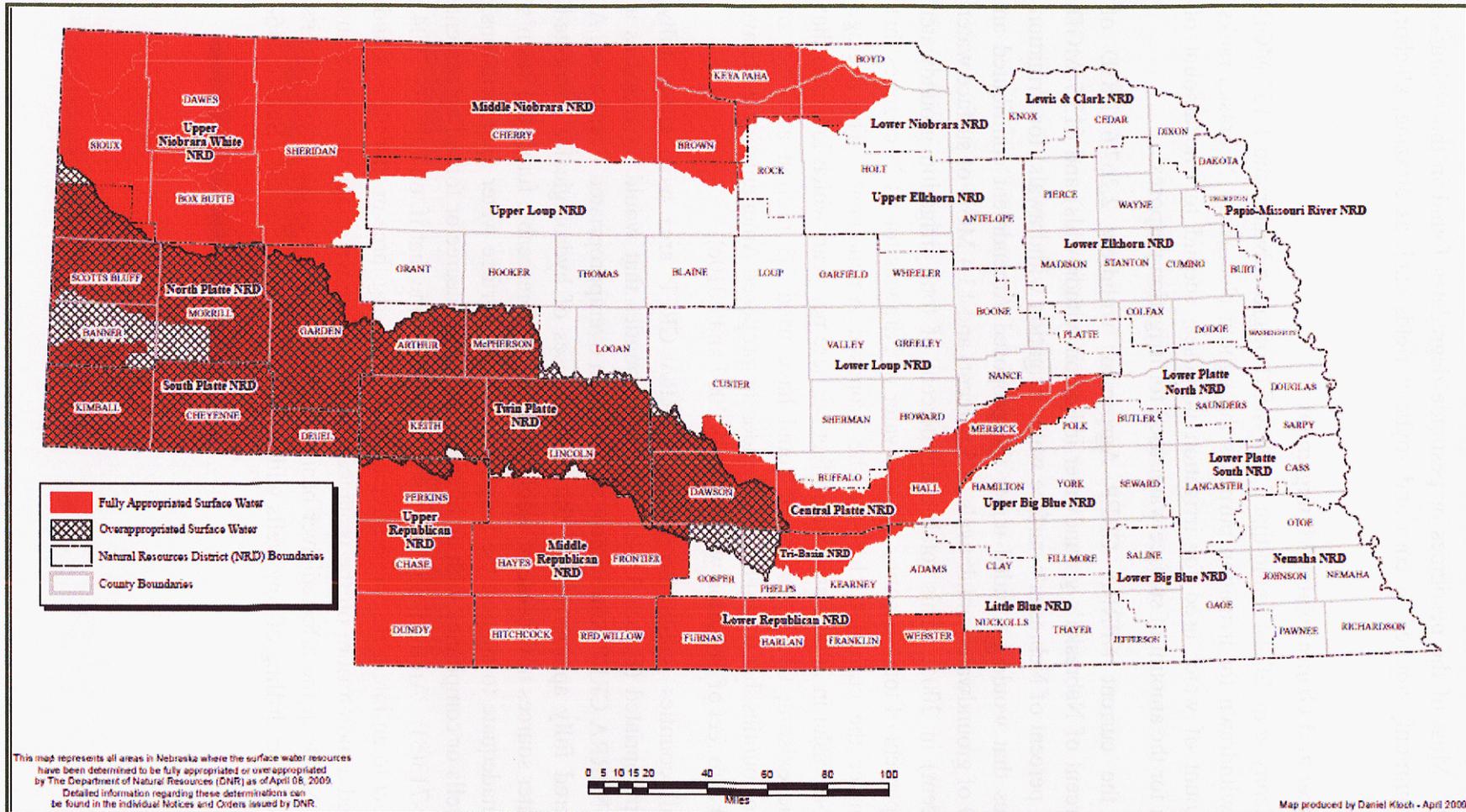
primary crop is cotton. Most of the pesticides or pesticide degradates found in the Nebraska samples were those commonly applied to corn and soybean fields such as atrazine, alachor, metochlor, and simazine.

### **3.2.2.3 Surface Water and Groundwater Management**

In 2005, the USGS (Kenny *et al.* 2009) found that 7,308 MGD of groundwater and 1,152 MGD of surface water was withdrawn for irrigation purposes throughout Nebraska. Nebraska ranks sixth in the total amount of water used for irrigation purposes; second for the amount of groundwater; and 14th for the amount of surface water used for irrigation purposes.

The counties under the current NPRRA CREP Agreement withdrew 2,267.6 MGD of groundwater (31.0 percent of Nebraska's groundwater irrigation withdrawals) and 613.7 MGD of surface water (53.3 percent of Nebraska's surface water irrigation withdrawals) for irrigation in 2005. The counties that would be added under the proposed Amendment contributed an additional 255.9 MGD of groundwater withdrawals (3.5 percent) and 13.4 MGD of surface water withdrawals (1.2 percent) in 2005. This totals 34.5 percent of total irrigation groundwater withdrawals and 54.5 percent of total irrigation surface water withdrawals for all 28 counties that would be included under the current CREP and the proposed Amendment. The average irrigation rate within Nebraska in 2008 was 0.8 acre feet per acre per year, which indicates that the counties under the existing CREP agreement could have used 2.3 million acre feet of irrigation water and the counties that would be added under the proposed Amendment could have used just over 100,000 acre feet of irrigation water (NASS 2007 and 2010c).

As of April 2009, all counties within the current NPRRA CREP area were either fully appropriated or overappropriated (Figure 3.2-2). The five counties that would be added as a result of the proposed NPRRA CREP Amendment all lie within overappropriated river basins. A river basin is considered fully appropriated if the existing uses of hydrologically connected surface and ground water sources now cause or would cause in the foreseeable future the basin's water supplies to be inadequate to support the long-term existing surface water appropriations, use of ground water wells or compliance with an interstate compact, decree or formal agreement (Nebraska Statute §46-713(3)). An overappropriated river basin is one that if, on July 16, 2004, the river basin is subject to an interstate cooperative agreement among three or more States and the NDNR has declared a moratorium on the issuance of new surface water appropriations and has requested that the NRDs in the affected river basins suspend issuance of additional permits or to temporarily suspend the drilling of new wells within the water basin (Nebraska Statute §46-713(4)(a)).



Source: NDNR 2009b

Figure 3.2-2. Fully Appropriated and Overappropriated Surface Water in Nebraska

### 3.2.2.4 Wetlands

Wetlands in Nebraska include playas, marshes, river and stream backwaters, oxbows, wet meadows, fens, forested swamps, and seeps. Nebraska has an estimated 1.9 million acres of wetlands, a 35 percent decline from the estimated 2.9 million acres present at the time Nebraska received statehood in 1867 (Dahl 1990). There are currently five wetland complexes within the CREP area with an estimated 472,198 acres; the Southwest Playas complex would be included under the proposed CREP Agreement Amendment (Table 3.2-2 and Figure 3.2-3) (NGPC 2005).

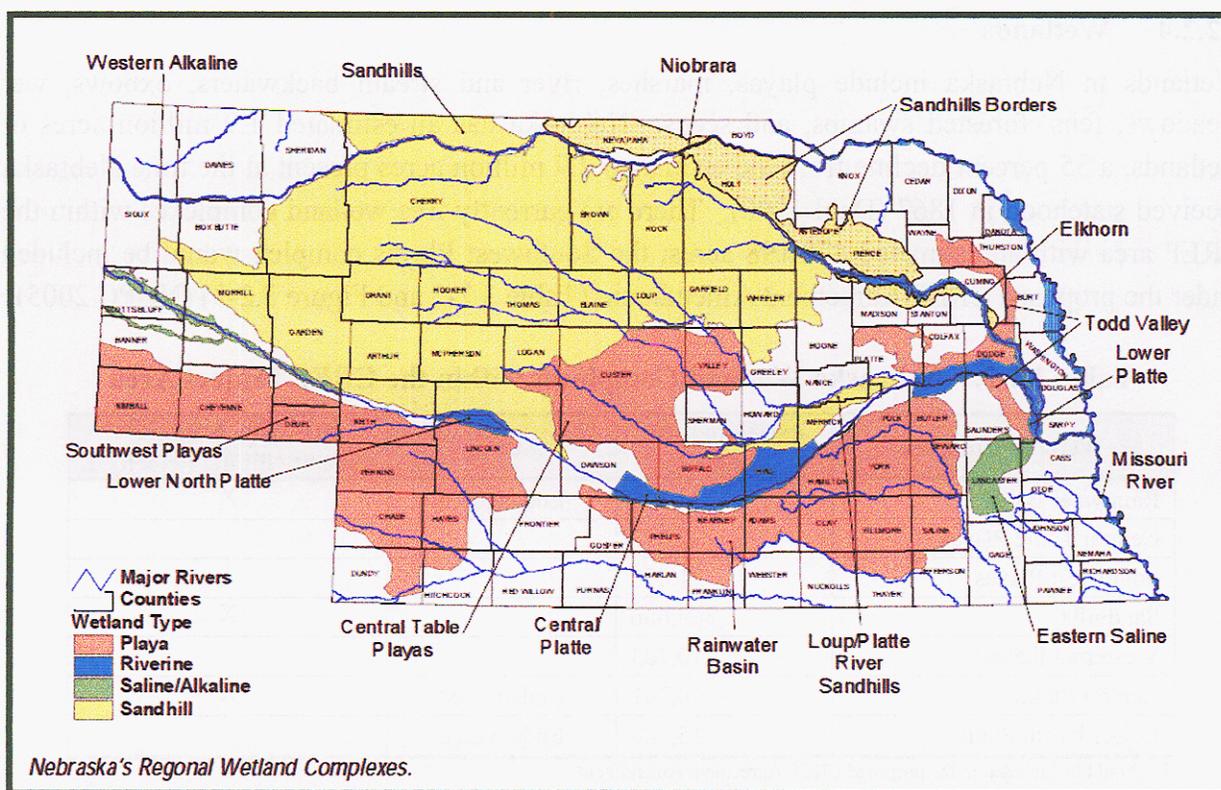
**Table 3.2-2. Nebraska Wetland Complexes within the CREP Project Area**

Wetland Complex	Estimated size (acres)	Status	Nebraska Wetlands Priority Plan – Priority 1
Rainwater Basin	34,103	Endangered	X
Central Table Playas	7,317		
Southwest Playas <sup>1</sup>	21,680		
Sandhills	369,606		X
Western Alkaline	10,703		
Central Platte	40,761	Endangered	X
Lower North Platte	15,708	Endangered	

1. Would be included in the proposed CREP Agreement Amendment  
 Source: NGPC 2005

The Sandhills complex, with 369,606 wetland acres, covers the greatest amount of land (19,300 square miles) and stretches from the Nebraska/South Dakota border south to the Platte River; therefore, a large portion of its wetlands are not within the current CREP area. Under the proposed amendment, additional acreage in the Sandhills wetlands complex would be eligible for enrollment in CREP. The biggest threat to the Sandhills wetlands complex is drainage to increase acreage for hay production, with estimates of losses since the early 1970s of between 15 percent and 46 percent. The Sandhills and two other wetland complexes are ranked as Priority 1; this ranking is assigned due to very extensive past losses (NGPC 2005). Additionally, there are three wetland complexes classified as endangered due to past losses and projected threats in the future (Table 3.2-3).

There are approximately 990 plant and 30 wildlife species, other than birds, that use Nebraska wetlands (NGPC 2005). In addition, over 300 species of birds have been identified, with over 140 species nesting in Nebraska wetlands (USFWS 2008). The Central Platte wetland complex provides critical habitat for the endangered piping plover, least tern and whooping crane, and is the spring staging area for 80 percent of the world's sandhill crane (*Grus canadensis*) population (*Ibid.*).



Source: NGPC 2005

**Figure 3.2-3. Nebraska's Regional Wetland Complexes**

### 3.2.2.5 Floodplains

Floodplains have several key functions, including storing excess runoff, slowing water flow, recharging wetlands and aquifers, and reducing erosion. Two key elements of flooding are rainfall intensity and duration (USGS 2010), and in some regions, rapid melting of snow. Topography, soil conditions and ground cover are also important factors. Flooding occurs when there is a prolonged rainfall over several days, intense rainfalls over a short period of time, substantial snow pack melts rapidly, or when debris blocks the flow of rivers and streams. In addition, lands converted from fields or woodlands to roads and parking lots lose their ability to absorb water, and these impervious surfaces increase runoff. In June 2010, nearly all of Nebraska was under either a flood watch or warning. Spring rains resulted in flooding of the Missouri, North Loup, and Platte Rivers; with 16 gages breaking historic records and resulting in over \$16 million in damages (NDNR 2010). Efforts to reduce flood events include river channelization, construction of dams and levees, river/stream bank protection, establishment of floodways, and removal of debris which clog channels.

### **3.3 Soil Resources**

#### **3.3.1 Definition of the Resource**

Soils are a natural body made up of weathered minerals, organic matter, air and water (Brady and Weil 1996). This body of inorganic and organic matter is home to a wide variety of fungi, bacteria, arthropods, herpetofauna, mammals as well as the growth medium for terrestrial plant life. Soil plays a key role in determining the capacity of a site for bio-mass vigor and production (physical support, air, water, temperature moderation, protection from toxins, and nutrient availability). Soils also determine a site's susceptibility to erosion (by wind and water), and a site's flood attenuation capacity.

The organic and mineral component of soils is a product of mineral weathering, organic matter decay and balance, and soil moisture dynamics. The rate of weathering (mineral breakdown and organic matter accumulation or loss and decay) is determined by parent materials (the initial organic materials and rock), climate (precipitation and temperature), living organisms (plants, animals, microbes and humans), topography, and time. The process of soil formation is a dynamic and on-going process. Generally speaking, soil weathering or development is slowed by cold weather and lack of moisture; inversely, hot and moist climates accelerate soil development. Soil weathering increases from north to south across the State due to increasing temperatures and slows from east to west due to decreased precipitation.

Soils vary in texture, depth, and organic matter. Soil texture refers to mineral particle size. Mineral particle sizes are broadly classified as sand, silt, clay or a combination of the three. Sand is the coarsest (largest) particle size, silt is intermediate, and clay is the finest (smallest) particle size. Soil texture and the amount of organic matter directly influence soil shear strength, nutrient holding capacity, and permeability. Soils with fine texture (clay) typically have greater shear strength than more coarse soils. Organic carbon levels also enhance particle aggregation and therefore strengthen soils shear strength.

Soil scientists refer to a soil's fitness for any given function as soil quality or soil health. Soil functions include: protect ground and surface water, protect air quality, resist soil erosion, protect bio-diversity, support plant production, support animal production, and food safety. Soil properties that influence these functions include: soil nutrient levels, water holding capacity, permeability, gas exchange, microbial abundance, and structural stability (Brady and Weil 1996).

Soil erosion is a naturally occurring event and erosion rates are relatively slow. Natural or geologic erosion rates seldom exceed soil development rates. It is estimated that the natural erosion rate for the corn belt of the U.S. is approximately 0.1 megagrams per hectare per year or 0.04 metric tons/acre/year. Soil and vegetation disturbance created by man greatly accelerate erosion rates. The average erosion rate on cropland in the U.S. is 13.2 metric tons/hectare/year (5.3 metric tons/acre/year), 132 times the natural erosion rate (Brady and Weil 1996). Poor farming practices such as cultivating steep slopes, not planting on contours, no wind breaks, and overgrazing are a major factor in accelerating erosion. The detrimental effect of soil loss is

compounded by the fact that erosion removes the topsoil first, which is the layer with the highest organic matter content and where the most biological activity occurs. Once this nutrient rich layer of soil is gone, plant growth decreases and erosion increases significantly.

Soils susceptible to erosion are identified using the EI. The EI provides a numerical expression of the potential for a soil to erode based on factors such as topography and climate. The index value is derived from the Revised Universal Soil Loss Equation (RUSLE) for water erosion, and the Wind Erosion Equation for wind erosion. Highly erodible lands (HEL) are those with an index value of eight or higher (NRCS 2009). To be eligible for CRP and CREP, cropland soils must be highly erodible. The 2008 Farm Bill contains soil conservation compliance requirements for producers using HEL. A list of soils considered highly erodible are developed and maintained on a county level by NRCS.

### **3.3.2 Affected Environment**

Nebraska is within three major land resource areas (MLRA) defined by USDA: (1) the Western Great Plains Range and Irrigated Region; (2) the Central Great Plains Winter Wheat and Range Region; and (3) the Central Feed Grains and Livestock Region (NRCS 2006). A description of the soil orders found within these MLRAs is found in Table 3.3-1. The NPRRA lies within both the Western Great Plains Range and Irrigated and Central Great Plains Winter Wheat and Range regions.

The Western Great Plains Range and Irrigated Region is found in northwest corner; extending throughout most of the northern and central portions of the State, and within most of the panhandle. Prevalent soils in this region are Entisols and Mollisols, along with Alfisols, Aridisols, Inceptisols, and some Vertisols (*Ibid.*). Overgrazing and wind and water erosion are the major soil resource concerns in this region. The major concerns on cropland in this region are wind and water erosion, maintenance of soil organic matter and soil moisture management.

The southwestern and south central portion of the State lies within the Central Great Plains Winter Wheat and Range Region. Mollisols are the dominant soils in this region, but there are also significant areas with Alfisols, Entisols, and Inceptisols (*Ibid.*). The major concerns for soil resources in this area are overgrazing and the spread of invasive and noxious plants. Cropland concerns include wind and water erosion, maintenance of soil organic matter and soil moisture management.

The eastern portion of Nebraska lies within the Central Feed Grains and Livestock Region. The soils in this area are dominantly Alfisols, Entisols, Inceptisols, and Mollisols, Histosols are found on floodplains and in wetlands (*Ibid.*). The soils in this area are favorable for agriculture and produce most of the corn, soybeans, and feed grains in the U.S. Major soil resource concerns in this region are water erosion, wetness, and the maintenance of soil organic matter and productivity.

**Table 3.3-1. Soil Order Description**

<b>Order</b>	<b>Description</b>
Alfisols	A dark surface horizon mineral soil, similar to Mollisols however, lacking the same level of fertility and more acidic.
Aridisols	These soils are found in the arid regions of the US. Typically high in calcium, Magnesium, potassium and sodium. The soils have an alkaline pH.
Entisols	This soil order is relatively un-weathered. These soils have no diagnostic horizon development. Often found on floodplains, glacial outwash areas and other areas receiving alluvial materials.
Histosols	Soils high in organic carbon. Dark surface profile. Often associated with wetlands.
Inceptisols	Soils of the humid and sub humid region. Weathering has created minimal diagnostic differentiation in the soil column.
Mollisols	Dark colored mineral soils developed under grassland conditions. Rich in nutrients, very fertile. Associated with America's corn belt.
Vertisols	Soils having significant amounts of expanding clay content. Soils typically crack when dry and swell when wet.

Source: Brady 1990

### **3.4 Socioeconomics and Recreation**

#### **3.4.1 Definition of the Resource**

Socioeconomic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a community or Region of Influence (ROI). The socioeconomic conditions of a ROI could be affected by changes in the rate of population growth, changes in the demographic characteristics of a ROI, or changes in employment within the ROI caused by the implementation of the proposed action.

Socioeconomic resources within this document include total population, rural population, total number of farms, and acreage eligible for available CPs associated with the NPRRA CREP implementation within the combined counties and State of Nebraska. These areas identify the components essential to describe the broad-scale demographic and economic components of the statewide effected agricultural population. Additionally, outdoor recreational activities within the State of Nebraska are being identified as to their overall monetary and non-monetary societal benefits.

#### **3.4.2 Affected Environment**

##### **3.4.2.1 General Population Characteristics**

###### **Population**

Nebraska had a population of approximately 1.7 million persons in 2000 with approximately 69.7 percent (1.2 million persons) living in urban areas (U.S. Census Bureau [USCB] 2002). Of

the population living in rural areas, 17.2 percent (88,936 persons) lived on farms. The annual population estimates prepared by the USCB (2010a) indicated that the population of Nebraska had increased approximately 5.0 percent between 2000 and 2009, averaging a less than one percent increase in population per year. Within the existing NPRRA CREP counties, the population has shown an estimated decline of approximately 2.1 percent during the period (USCB 2010b). The five counties considered in the proposed Amendment experienced a decline in population of approximately 6.3 percent from 2000 to 2009 to 17,369 (*Ibid.*). The existing NPRRA CREP counties are mostly urban, with a total regional population living in a rural environment of 49.1 percent in 2000 (USCB 2002). From that rural population, 7.7 percent of total regional population lived on farms (*Ibid.*). In the five additional counties, 50.1 percent of the population lived in rural areas with 10.9 percent living on farms in 2000 (*Ibid.*). When compared to the overall Nebraska farm population of 5.2 percent, the combined counties (in both the existing and proposed expanded CREP counties) indicate a higher percentage of the population living in rural areas and on farms. The population within the combined counties accounts for approximately 21.5 percent of the population that live on farms and 23.0 percent of the rural population of the State in 2000 (*Ibid.*).

### **Personal Income and Earnings**

Economic characteristics from the 2009 American Community Survey (ACS) for Nebraska indicate a median household income (MHI) of \$47,357 (94.3 percent of the nationwide MHI) and a per capita income (PCI) of \$24,627 (93.3 percent of the nationwide PCI), both slightly lower than the nationwide levels (USCB 2010a). The MHI in the combined counties ranged from a low of \$26,667 in Hayes County in 2000 (67.9 percent of the Nebraska MHI of \$41,567 in 2000) to a high of \$39,247 in Kearney County (99.9 percent of the Nebraska MHI) (USCB 2002). The average MHI within the combined counties in 2000 was \$31,828 (81.1 percent of the Nebraska MHI) (*Ibid.*).

The Bureau of Economic Analysis (BEA) defines earnings as the sum of three components of personal income-wage and salary disbursements, supplements to wages and salaries, and proprietors' income. Personal income across Nebraska increased approximately 35.9 percent between 2001 and 2008 at an average annual rate of approximately 4.5 percent (BEA 2010a). Farm proprietors' income fluctuated widely during this period, with an average increase of 35.5 percent. However, in 2002 and 2006 farm proprietors' income fell in excess of 45 percent from the previous year (*Ibid.*). In the region, personal income increased approximately 37.6 percent, with other measures following State-level trends (*Ibid.*).

### **Employment**

The Bureau of Labor Statistics (BLS) compiles current and historic data on the labor force, the number of persons employed, the number of person unemployed, and the unemployment rate. Nebraska, from 2000 to 2009 increased the total nonfarm labor force by approximately 3.6 percent to approximately 1.0 million persons (BLS 2010). During this period the labor force grew at an average annual rate of approximately 0.4 percent per year. The unemployment rate

increased 1.8 percentage points to 4.6 percent in 2009 (*Ibid.*). This was the highest rate during the decade. The counties included in the current NPRRA CREP and proposed Amendment combined saw the labor force increase by approximately 2.0 percent. The unemployment rate during the period increased 1.4 percentage points to 4.2 percent, slightly less than the statewide figures (*Ibid.*).

The BEA also tracks employment characteristics at the farm and nonfarm levels. These data indicate a loss of farm employment of approximately 22.6 percent between 2001 and 2008 statewide. In all the counties combined included in the current NPRRA CREP and proposed Amendment, farm employment followed the same pattern with an approximate loss of 23.0 percent of farm employment positions between 2001 and 2008 (BEA 2010b). There was general decline at both the statewide and combined county level in the number of farm proprietors, with a decline of 21.6 percent between 2001 and 2008 at the State level and a decline of 20.7 percent between 2001 and 2008 in the combined counties included in the current NPRRA CREP and proposed Amendment (*Ibid.*). Non-farm employment increased 8.4 percent between 2001 and 2008 at the State level, which was slightly higher than the 7.6 percent increase observed in the combined counties (*Ibid.*).

### **3.4.2.2 Agricultural Economy**

#### **State Level**

In Nebraska, farms and ranches cover 45 million acres of land, approximately 92.5 percent of the State's land area (NASS 2007). Consequently, agriculture is a major contributor to Nebraska's economy. In 2009, agricultural production value was at \$17.2 billion, dropping from the 2008 high of 18.7 billion. Also in 2009, Nebraska was ranked fifth in the nation in terms of net farm income (\$3.1 billion). Every dollar in agricultural exports generates \$1.40 in economic activities such as transportation, financing, warehousing, and production. Nebraska's \$5.9 billion in agricultural exports translate into over \$8.3 billion in additional economic activity each year (NASS 2010b, Nebraska Department of Economic Development [NDED] 2010, Economic Research Service [ERS] 2010a).

Another indicator of agriculture's contribution to the State's economy is the percentage of the labor force that it employs. Farm and farm-related industries employ a significant portion the labor force each year. Since 1980, farm and farm-related industries have consistently employed more than 20 percent of the labor force each year. In 2002, farm and farm-related industries employed over 239,000 people and accounted for 20.3 percent of the labor force (NDED 2010).

#### **CREP Project Area**

The 2007 Agricultural Census indicates that there were 10,203 farms in the counties included in the current NPRRA CREP; an additional 1,576 farms in the five additional counties would be added under the proposed Amendment (Appendix G) (NASS 2007). The existing counties account for approximately 13.1 million acres and the counties that would be included in the proposed Amendment would add an additional 2.5 million acres. In 2007, total cropland within

the counties under the current NPRRA CREP agreement accounted for 5.8 million acres; with an additional 1.3 million acres of cropland added under the proposed Amendment. Approximately 49.8 percent of total cropland was irrigated (2.9 million acres) under the current agreement; an additional 0.1 million irrigated cropland would be eligible under the proposed Amendment (NASS 2010c). In 2008, Nebraska operators applied 6.9 million acre feet of water on irrigated croplands, an approximately 20.7 percent decline from the amount of water applied on approximately 11.3 percent more acres in 2003 (*Ibid.*). In total, in both the counties under the current NPRRA CREP agreement and the proposed Amendment, the total of farms, number of acres of land in farms, and amount of cropland declined, while irrigated acres increased between 2002 and 2007.

According to the 2007 Agricultural Census (NASS 2007), the primary field crops in 2007 in the counties under the current agreement were corn (2.6 million acres), wheat (0.9 million acres), and soybeans (0.6 million acres). In the counties that would be added under the proposed Amendment, the primary field crops were wheat (0.4 million acres), proso millet (0.09 million acres), and corn (0.07 million acres). There was substantially more acres of corn harvested in all counties in 2007 compared to 2002. In 2002, the primary field crops were the same in both the counties under the current NPRRA CREP agreement and the proposed Amendment; with corn (1.8 million acres), wheat (0.8 million acres), and soybeans (0.6 million acres) harvested in the current counties, while wheat (0.4 million acres), proso millet (0.08 million acres), and corn (0.05 million acres) were primary field crops in the additional counties. Overall, 25.4 percent more acres of field crops were harvested in 2007 in the current counties, while in the additional counties only 1.6 percent more acres of field crops were harvested.

According to the 2007 Agricultural Census (NASS 2007), net cash farm income from operations in 2007 for all farms in Nebraska was just under \$4.0 billion, which was an increase of 223.8 percent from 2002. Total farm production expenses for the State increased to over \$12.3 billion, which was \$3.3 billion (36.2 percent) more than in 2002. The counties within the current CREP had a combined net cash farm income of \$1.1 billion in 2007, which accounted for approximately 27.5 percent of the total statewide net cash farm income. The additional counties under the proposed Amendment contributed an additional \$0.9 billion in 2007. All combined, the counties increased net cash farm income from operations in excess of 229 percent between 2007 and 2002. Total production expenses increased at a more modest rate of approximately 29.0 percent in the counties under the current agreement to \$3.5 billion, with the counties added under the proposed Amendment contributing an additional \$0.3 billion in 2007. Overall production expenses within the counties accounted for approximately 30.9 percent of the statewide total production expenses.

### **3.4.2.3 Recreation**

The 2006-2010 State Comprehensive Outdoor Recreation Plan (SCORP) produced by NGPC outlines the amount of lands available for outdoor recreation at the varying levels (Federal through private). According to the SCORP (NGPC No Date), approximately three percent of

Nebraska's land area is publicly owned, with approximately 1.1 million acres available for outdoor recreation.

The NGPC provides maps illustrating all public waters, hunting lands, state parks, boating areas, and trails within the state. The proposed CREP area includes 119 public waters, 89 public hunting lands, and 24 state parks (Appendix G) (NGPC 2010c). Additionally, groups of conservation agencies in conjunction with the NGPC and the FSA CRP – Management Access Program (MAP) provide private lands for public walk-in, activities such as hunting, trapping, and fishing, depending upon the program. The Nebraska Public Access Atlas indicates that CRP-MAP will provide approximately 156,000 acres for public access walk-in hunting and trapping and the Open Field and Waters Program of the NGPC will provide approximately 30,000 acres (NGPC 2010d).

Nebraska reported 1,611,000 days of hunting in 2006, resulting in retail sales worth over \$231 million (USFWS and USCB 2008). This was a decline from 2001 in hunting days by 26.9 percent and a decline in retail sales of 5.8 percent (USFWS and USCB 2003; 2008). Fishing activities accounted for nearly \$154.6 million from residents and over \$26.6 million from nonresidents (USFWS and USCB 2008). This was an increase from 2001 in resident spending for fishing activities of approximately 100.8 percent and a decline in nonresident spending of 40.2 percent (USFWS and USCB 2003; 2008). Wildlife associated activities, aside from hunting and fishing, totaled \$640 million, which was an increase of 9.4 percent from 2001 (*Ibid.*).

The 2007 Agricultural Census (NASS 2007) indicated there were 84 operations within the existing CREP counties that had receipts for agricultural tourism or recreational activities, which was a decline of approximately 14.3 percent from 2002. Given the small number of operations having recreational receipts compared to the total number of operations within the CREP counties (10,203 farms), full data on the total amount of recreational receipts was not available. However, it was indicated that at least \$216,000 was generated from recreational activities on these farms, which was a decline of approximately 21.7 percent from 2002. The counties under the proposed CREP Amendment only accounted for an additional 14 operations, which generated approximately \$32,000.

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## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 Biological Resources**

#### **4.1.1 Definition of Significant Impact**

Impacts to biological resources would be considered significant if implementation of an action or program resulted in reducing wildlife populations to a level of concern, removing land with unique vegetation characteristics, or an incidental or otherwise take of a protected species or critical habitat.

#### **4.1.2 Vegetation**

##### **4.1.2.1 Proposed Action Alternative**

Implementing the Proposed Action Alternative would result in positive impacts to vegetation within the CREP river basins. The establishment of plant communities that would result from acceptable CPs with either natural or introduced species in areas where crops were once grown would result in greater vegetative species diversity. Establishment of permanent native grasses (CP2), wetland restoration (CP23 and CP23A), and the establishment of permanent wildlife habitat (CP4D) restores native plant communities. The establishment of grassed filter strips (CP21) and riparian buffers (CP22) would reduce runoff of agricultural chemicals, excess nutrients, and sediment, thus improving the quality of habitats for aquatic plants by decreasing turbidity and enrichment from fertilizers, which would in turn allow more sunlight to reach submerged rooted plants. The restoration of rare and declining habitat (CP25) would help to restore prairies using native cool and warm season grasses with wildflowers to increase plant diversity and provide habitat for declining wildlife species. These practices would also slow and retain runoff, increase water infiltration of soil, and minimize flooding. Instream augmentation under the State Water Use Contract would help sustain stream flow, thus maintaining habitat continuity and quality for aquatic and stream bank vegetation. Temporary impacts to vegetation would occur from ground disturbing activities needed to establish the conservation cover (i.e., grading and leveling). However, implementation of best management practices (BMP) to conserve topsoil, control erosion, and control introducing invasive plant species would minimize the temporary impacts to vegetation.

##### **4.1.2.2 No Action Alternative**

Under the No Action Alternative, the proposed expansion of CREP to include additional acreage along the North Platte and Platte Rivers, as well as making lands along Lodgepole Creek, the South Platte, and upper Pumpkin Creek eligible for enrollment would not be implemented. As such, participation in the program may be lower than that of the Proposed Action. Lands that would have been eligible for enrollment would remain in agricultural production or may be enrolled in other conservation programs, but without the focus of obtaining the vegetation benefits of the CREP. The continued use of land for agriculture or the conversion of land to another type of agricultural production would reduce vegetative diversity.

### **4.1.3 Wildlife**

#### **4.1.3.1 Proposed Action Alternative**

Implementation of the Proposed Action would result in long-term beneficial impacts to the wildlife and fisheries within the CREP area. Lands eligible for enrollment in the proposed expansion include agricultural fields and pastureland, which are usually highly disturbed landscapes. By replacing the agricultural uses with conservation covers that may include native and non-native plants, the CREP would increase and improve habitat for terrestrial wildlife. It is expected that with an increase in vegetative diversity, a similar trend in animal diversity would follow. Restoration of wetlands (CP23 and CP23A) would provide new habitat beneficial for both aquatic and terrestrial wildlife. The establishment of filter strips (CP21) and riparian buffers (CP22) would improve habitats for aquatic species, including recreationally important fish, as runoff of sediment and agricultural chemicals would be reduced. This decreases the potential for algal bloom that deprives water and aquatic species of oxygen. Implementation of all of the proposed practices helps slow runoff velocity, and reduces flooding that impacts both terrestrial and aquatic wildlife. Restoration of prairies using native cool and warm season grasses with wildflowers under CP25 would help to increase plant diversity and provide habitat for declining wildlife species, and establishment of wildlife food plots would be beneficial for terrestrial wildlife. Instream augmentation under the separate State Water Use Contract would help maintain stream flows and habitat continuity, providing benefits for aquatic and wildlife species.

Wildlife may be displaced during installation of conservation covers or restoration of wetlands, however, this impact would in most cases be localized, temporary, and would cease once construction was complete. In settings where no suitable alternative habitat exists for wildlife to temporarily relocate, longer term abandonment of the disturbed lands could result, but this would only occur in limited circumstances, and the site-specific environmental evaluation would identify such potential.

#### **4.1.3.2 No Action Alternative**

Under the No Action Alternative, the proposed expansion of the Nebraska CREP to include the Lodgepole Creek, Upper portion of Pumpkin Creek, and South Platte River would not be implemented. Benefits to wildlife would continue to be attained in the current NPRRA CREP area, but would not be realized in the substantially larger area, and may make the program less attractive to potential participants, potentially leading to not meeting enrollment goals.

### **4.1.4 Protected Species**

#### **4.1.4.1 Proposed Action Alternative**

Similar to vegetation and wildlife, certain TES are expected to experience long-term benefits from the improvements in surface water quality both within and downstream of the project area, as well as from restoration of wetlands, and the establishment of permanent plant communities, including native terrestrial habitats. Threatened and endangered species such as the Federally

endangered whooping crane and State endangered swift fox (*Vulpes velox*) that occur in the proposed Amendment areas along Lodgepole Creek and the upper portion of the South Platte River, respectively, would experience long-term benefits from implementation of the Proposed Action. Similarly, Federally recognized critical habitat in Buffalo, Dawson, Kearny and Phelps counties (USFWS 1978) would potentially be restored under the proposed CREP conservation practices.

Temporary minor negative impacts could occur during land preparation as a result of noise or other disturbance. Prior to enrollment in the program, site-specific environmental evaluations would identify the potential for protected species to be present. If a species is present, consultation with the USFWS and the State would be undertaken to assess possible impacts. If any negative impacts are identified from the proposed CREP that cannot be alleviated, it is not likely that the proposed activity would be approved.

#### **4.1.4.2 No Action Alternative**

Under the No Action Alternative, the additional lands included in the NPRRA CREP Amendment would not be eligible for enrollment. Land that would have been eligible for enrollment could remain in agricultural production or be enrolled in other conservation programs, yet without the focused benefits of the proposed CREP. The continued use of land for agriculture or the conversion of land to another type of agricultural production would continue to have negative impacts on threatened, endangered, and sensitive species by reducing or degrading available habitats and degrading water quality through the runoff of agricultural chemicals, animal wastes and sediment, potentially threatening aquatic species.

### **4.2 Water Resources**

#### **4.2.1 Definition of Significant Impact**

Impacts to water resources would be considered significant if implementation of the Proposed Action resulted in changes to water quality, threatened or damaged unique hydrologic characteristics, or violated established laws or regulations.

#### **4.2.2 Surface Water**

##### **4.2.2.1 Proposed Action Alternative**

Implementing the Proposed Action Alternative is expected to result in long-term positive impacts to surface water quality within the proposed NPRRA CREP Amendment lands. Under the Proposed Action Alternative, the amount of protected watercourses could increase. Establishment of native grasses (CP2), permanent wildlife habitat-noneasement (CP4D), filter strips and buffers (CP21 and CP22), restoration of wetlands (CP23 and CP23A), and rare and declining habitats (CP25) would stabilize soils and stream banks, would establish vegetation for the retention of sediment, excess nutrients, and other pollutants from lands adjacent to surface waters, and improve aquatic habitat. Similarly, restoration of floodplain and upland wetlands

would improve water quality of connected streams, rivers and ponds by reducing flood flows, decreasing erosion, and improving sediment-trapping efficiency. Increasing lands eligible for enrollment would improve surface water quality within the State. Increased enrollment as a result of additional eligible lands would reduce the need for irrigation; if all of the remaining 50,655 acres were to be enrolled into the NPRRA CREP, irrigation demand could be reduced by approximately 40,524 acre feet per year (15.2 billion gallons per year). Similarly, instream augmentation under the State Water Use Contract would assist in maintaining stream flow.

Activities such as vegetation clearing and soil disturbance would occur during the installation of CPs. This has the potential to negatively affect water quality through increased erosion leading to increased sedimentation of nearby waters. This potential is localized and temporary, and is minimized by use of BMPs such as erosion control fencing, temporary vegetative buffers, erosion control blankets, or similar practices. No significant negative impacts to surface water quality would occur from implementation of the Proposed Action.

### **4.2.2.2 No Action Alternative**

Under the No Action Alternative the proposed expansion of the current CREP to include additional acreage along the North Platte and Platte Rivers, as well as making lands along Lodgepole Creek, the South Platte, and upper Pumpkin Creek eligible for enrollment would not be implemented. Lands could still be enrolled in the original NPRRA CREP, continuing to benefit water quality in these areas. Lands in other areas could continue to be enrolled in CRP which would benefit water quality, but the benefits would not be as extensive as those gained from implementing a CREP that is focused in a coordinated effort on particular CPs, and would not benefit from the addition of Federal and State partnerships in achieving water quality improvements.

### **4.2.3 Groundwater**

#### **4.2.3.1 Proposed Action Alternative**

Implementation of the Proposed Action Alternative would result in long-term positive impacts on groundwater in the expanded NPRRA CREP. Establishment of filter strips and riparian buffers (CP21 and CP22) remove contaminants and nutrients, and reduce surface flow velocity that allows for water to permeate the soil and recharge groundwater. The restoration of wetlands (CP23 and CP23A) would provide similar benefits, although the interaction between groundwater and wetlands is dependent on several factors such as topography, hydrology, and geology of a location. Wetlands may recharge groundwater, groundwater may supply wetlands, or both could occur within an area depending on these factors. Expansion of the CREP may increase program enrollment, potentially resulting in benefits on a larger geographic scale. Groundwater and surface water within the current and proposed NPRRA CREP area are hydrologically connected. As with surface water, the increased enrollment as a result of additional eligible lands would reduce the need for irrigation and the enrollment of the remaining 50,655 acres could reduce irrigation demand by approximately 15.2 billion gallons per year.

The installation of CPs does not have the potential to negatively affect groundwater supplies if it occurs over a short period of time. Therefore, there would be no significant negative impacts associated with the Proposed Action.

#### **4.2.3.2 No Action Alternative**

Under the No Action Alternative the NPRRA CREP would not be expanded to include the additional acreage along the North Platte and Platte Rivers, or the additional eligibility for enrollment of lands along Lodgepole Creek, the South Platte River, and upper Pumpkin Creek. The benefits to groundwater would be similar to those described for the Proposed Action, but would be limited to the current acreage in the NPRRA. Participation in the program may be lower than if it was expanded to include the additional acreage.

#### **4.2.4 Wetlands**

##### **4.2.4.1 Proposed Action Alternative**

More substantial reductions in nitrogen, phosphorous, and other agricultural chemicals in runoff would occur with the conversion of agricultural land to conservation purposes in an expanded area as proposed under this alternative. Implementation of wetland restoration (CP23 and CP23A) is expected to increase wetland acreage and restore degraded palustrine habitat in the NPRRA CREP area. Wetlands act as natural filters by containing sediments and nutrients from runoff before releasing to nearby surface waters. Similarly, some wetlands retain surface water, allowing it to permeate into underlying groundwater supplies. The CPs under the Proposed Action Alternative would have long-term benefits for terrestrial and aquatic wildlife by increasing quality habitat in the NPRRA.

Activities such as vegetation clearing and soil disturbance would occur during the installation of CPs. This could result in temporary and minor negative impacts to wetlands resulting from increased sedimentation transported in runoff. There is also greater potential for spreading invasive plant species. The use of BMPs to control erosion and invasive plant species as specified in NRCS Practice Standard 658-Wetland Creation, would reduce impacts and contain sediment within the site. These potential impacts would be short term and localized, and would cease with conclusion of land preparation activities. No significant negative impacts would occur from the implementation of the Proposed Action.

##### **4.2.4.2 No Action Alternative**

Under the No Action Alternative, the CPs described above would not be implemented in the expanded acreage along the North Platte and Platte Rivers, or in the additional lands along Lodgepole Creek, the South Platte River, and upper Pumpkin Creek. Benefits to wetlands as described for the Proposed Action would still occur in the original NPRRA CREP area, and agricultural land outside of the current CREP could be enrolled in other conservation programs. However, expansion of the CREP that is focused on particular high priority water quality issues,

and brings other resources to bear in partnering between Federal and State government would provide greater water quality improvement benefits to the State.

#### **4.2.5 Floodplains**

##### **4.2.5.1 Proposed Action Alternative**

Expansion of the NPRRA CREP would increase counties eligible for enrollment from 22 to 27 counties (See Figure 1.2-1). Implementation of wetland restoration practices on floodplains (CP23 and CP23A) is expected to increase wetland acreage. Both upland and floodplain wetlands trap and slowly release floodwaters over the floodplain, which decreases flood heights. The implementation of the CPs in an expanded NPRRA CREP would restore and enhance the functions of floodplain wetlands. These practices restore native plant communities which stabilize stream banks, restore hydrology, and reduce flood damage. In addition, the installation of riparian buffers (CP22) would also stabilize stream banks and reduce sedimentation. The expansion of the NPRRA CREP area may reduce the number and severity of flood events.

Activities that alter the hydrology of an area could occur during the installation of CPs. This could result in temporary and minor negative impacts such as soil erosion, sedimentation of waterbodies, and streambed scouring; the use of BMPs such as temporary vegetation covers, erosion control fencing, erosion control blankets, and other similar measures would minimize these impacts. These impacts would be localized and cease with the conclusion of land preparation activities and would not be significantly negative.

##### **4.2.5.2 No Action Alternative**

Under the No Action Alternative, the CPs described above would not be implemented in the expanded lands of the NPRRA. Continued implementation of the CREP would have benefits in the current NPRRA CREP area as described for the Proposed Action. Agricultural lands outside of the current CREP could be enrolled in other conservation programs, but floodplain benefits would be less than if a coordinated effort targeting particular floodplain benefits from the implementation of specific CPs such as the proposed CREP expansion were to occur.

#### **4.3 Soil Resources**

##### **4.3.1 Definition of Significant Impact**

Significant impacts to soils would occur if implementation of the Proposed Action resulted in permanently increasing erosion and stream sedimentation, or affected unique soil conditions.

##### **4.3.2 Proposed Action Alternative**

Implementation of the Proposed Action Alternative would expand the current NPRRA CREP enrollment to include additional acreage along the North Platte and Platte Rivers, as well as making lands along Lodgepole Creek, the South Platte, and upper Pumpkin Creek eligible for enrollment. Under this alternative, long-term positive impacts to soil resources in the expanded CREP would occur from localized stabilization of soils. Establishing permanent native grasses

(CP2), permanent wildlife habitat (CP4D), and restoring rare and declining habitat vegetation (CP25) on former croplands would reduce wind and water erosion commonly associated with cultivated land. Reduced erosion and runoff as a result of planting grassed filter strips (CP21) and riparian buffers (CP22) would stabilize stream banks, reducing soil erosion. Restoring both floodplain and non-floodplain wetlands (CP23 and CP23A) promotes aquatic, emergent, and woody vegetation that slows the velocity of water runoff, and reduces flooding and its erosive potential.

Short-term disturbance to soils during implementation of the CREP could include grading, leveling, tilling, or installation of various structures such as fences and temporary irrigation features. These activities may result in temporary minor increases in wind and water soil erosion, and sedimentation of adjoining waterbodies. However, these impacts may be mitigated through topsoil conservation BMPs such as establishing stable grades, installing silt and erosion fencing, using mulch, and establishing temporary vegetated buffer strips; as well as following the requirements of NRCS Practice Standard 658-Wetland Creation, Standard 460-Land Clearing, and Standard 484-Mulching. Impacts from implementation of the Proposed Action on soils would not be significantly negative.

#### **4.3.3 No Action Alternative**

Under the No Action Alternative the proposed expansion of CREP along the North Platte and Platte Rivers, as well as the addition of lands along Lodgepole Creek, the South Platte, and upper Pumpkin Creek would not be implemented. Lands in the NPRRA could still be enrolled in the CREP, continuing to benefit from soil conservation in these areas. Lands in other areas could continue to be enrolled in CRP which would benefit soil resources, but the benefits would not be as extensive as those gained from implementing a CREP that is focused in a coordinated effort on particular CPs, and would not benefit from the addition of Federal, State, and private partnerships in achieving improvements to soil conservation.

### **4.4 Socioeconomics and Recreation**

#### **4.4.1 Definition of Significant Impact**

A significant impact to socioeconomic conditions can be defined as a change that is outside the normal or anticipated range of those conditions that would flow through the remainder of the economy and community creating substantial adverse effects. For small percentage changes in individual attributes, it would be unlikely that the changes would result in significant impacts at the total level of analysis (i.e., statewide). Changes to the statewide economy of greater than agriculture's normal contribution could be considered significant, as this could affect the general economic climate of other industries on a much greater scale.

Additional changes in demographic trends (i.e., population movements) would be considered significant if a substantial percentage of the population were to enter or leave a particular area

based on the changing economic conditions associated with the alternatives, rather than projected changes or changes generated by economic activities as a whole.

#### **4.4.2 Proposed Action Alternative**

##### **4.4.2.1 Agricultural Economy**

Under the Proposed Action Alternative the proposed CREP Amendment would be implemented in the expanded counties in Nebraska. This would allow for approximately \$122 million in spending by Federal and State/local agencies (\$36 million) to conserve, protect, and enhance marginal agricultural lands of up to 50,655 acres planted to approved CPs. The analysis for this alternative is based on a full implementation scenario, with full conversion of 50,655 acres in the region during the first year of implementation. A more likely scenario would be a gradual conversion up to a certain point of less than full adoption. The full implementation scenario provides a mechanism to gauge the potential worst-case effects to the socioeconomic conditions of the region through implementation of the Proposed Action Alternative.

Under the full implementation scenario, 50,655 acres would be enrolled in the expanded NPRRA CREP, foregoing active crop production on these lands for a period of 10 to 15 years. In 2007, there were approximately 5.8 million acres of total cropland within the region, with 5.3 million acres having been harvested (Appendix G). The purpose behind the CREP is to enhance water quality, preserve soils, and provide wildlife habitat for the watershed basin by removing marginal croplands from production and restoring them for conservation purposes. In 2007, there were just over 50,715 acres of failed or abandoned croplands within the region (NASS 2007). If these failed croplands were considered marginal acres then all of these marginal lands could be removed from crop production activities and placed in CPs. Of the total cropland within the region, the additional enrollment of 50,665 acres would account for approximately 3.8 percent of the cropland area in the additional counties or 0.9 percent of the cropland area within both the current and proposed CREP area, leaving active, harvestable acreage in crop production. Conversion of this relatively small amount of cropland to conservation purposes would therefore have no significantly negative impacts on local or statewide economics.

It has been considered that marginal croplands require greater input of farm production expenses than more arable lands, thereby indicating a higher per acre cost of farm production expense per revenue received off that acre. The 2007 Agricultural Census indicated that the combined counties included in the current and proposed CREP had over \$3.8 billion in total farm production expenses in 2007, averaging at \$323,046 per farm or \$109.67 per acre (NASS 2007). Net cash income from farm operations averaged \$99,789 per farm within all 28 NPRRA CREP counties in 2007, or approximately \$35.08 per acre. These averages included all cropland and pastureland.

A full implementation scenario was developed by assuming an enrollment of all eligible acres starting in 2011, with the first acreage expiring in 2021 (assuming a 10-year contract) continuing until 2026 (assuming a 15-year contract). From this, estimates of the range of effects could be

generated. Under the full implementation scenario there would be a decline of approximately two percent in agricultural sales or farm production expenses per year during the CREP enrollment period; however, a new equilibrium would be reached as production expenses shifted away from the marginal croplands into more productive croplands. Producers with land enrolled in the CREP would discover an economic advantage from enrolling their marginal acreage in CREP through a steady income stream associated with the CREP rental rate, and the potential for recreational revenue. Net cash income from farm operations was significantly higher in 2007 than 2002, indicating a high volume and value of sales for that year, which if used as the baseline, indicates a net loss per acre associated with lost sales values and lost farm production expenses. The average farm in Nebraska had a net farm cash income from operations of \$83,142 in 2007, compared with the \$24,820 in 2002 (NASS 2007). In Nebraska, the average net farm income per farm in the period of 2000 to 2009 was \$53,133 or \$55.75 per acre (ERS 2010b). The CREP would produce a decline in the total volume of farm production expenses; however, when compared to the region as a whole, that effect would be small and should reach a new equilibrium within a few years, after acres are enrolled and conservation practices are installed. The Proposed Action would not have any significant negative impact on the social values or economics within the additional counties under the proposed Amendment alone, the combined NPRRA CREP counties, or the State as a whole.

#### **4.4.2.2 General Population Characteristics**

Sullivan *et al.* (2004) looked at the rural economic trends following implementation of the general CRP. The data period observed was from 1985 to 2000 as a long-term look at trends with 1985 to 1992 being used to identify any short term trends. The study did find that in the short term, counties having a high level of CRP enrollment in distinctly rural areas tended to experience downward trends in local population and employment, though the significance of these trends varied. They found that there was no significant correlation between CRP enrollment and negative population changes, but did find evidence of correlation with CRP enrollment and job loss in the short term. In the long term, there was no evidence for any correlation on these factors. Sullivan *et al.* (2004) found that counties with small agricultural service centers experienced sharp reductions in demand for farm-related business services and products as farmland was retired. However, over the long term, the studies indicated that the rural economies were adaptable enough to adjust to the changing markets.

Given the relatively small amount of acreage proposing to be enrolled, implementing the Proposed Action Alternative is unlikely to produce measurable changes in the general population characteristics of the region in either the short term or longer term. There would be a period of transition as acreage is enrolled with the CREP program; however, even at full implementation, the effects would produce only a minor decline in the purchase of farm production expenses (i.e., feed, seed, fertilizers, etc.). As such, no anticipated declines in population or personal income are anticipated.

#### **4.4.2.3 Outdoor Recreation**

The largest private benefit would be associated with potential revenue that could be generated from recreational activities on CRP enrolled lands. Currently, in the additional counties, on average each acre generates approximately \$1.44 per acre for those operations that generated recreational revenue. In general, biological conditions that enhance habitats for wildlife increase the overall societal value for these species. Implementing the Proposed Action Alternative would result in benefits, both monetary and non-monetary, if there were additional opportunities for outdoor recreation activities. If new enrollment activities provide vegetation disturbance similar to natural occurrences, there should be varied positive habitat effects for both game and non-game species. In general, CRP practices have been found to create positive net societal benefits for a variety of resources (i.e., water quality improvements, wildlife habitat, reduced erosion and sediment transport) (Sullivan *et al.* 2004). An increase in game species could increase the monetary benefits associated with consumptive uses at local (i.e., farm hunting leases) and regional (i.e., sporting goods dealers) levels. Additionally, an increase in non-game species could create both monetary (i.e., wildlife watching, contributions to conservation measures) and non-monetary benefits (i.e., the societal benefits associated with existence values). Overall, enhancement of wildlife habitat would generate small positive values to local and regional communities.

#### **4.4.3 No Action Alternative**

Under the No Action Alternative, the CREP Amendment would not be implemented in the additional counties, and farming practices would continue as currently observed. Unlike the Proposed Action Alternative, the remaining 50,655 acres could only be enrolled in CPs within the existing counties. This alternative would not produce any measurable changes to the general population characteristics of the region, as there would be no changes to the sales or spending patterns of the agricultural producers. However, there would be the lost benefits associated with the CPs in regards to water quantity and quality, soil retention, and improved wildlife habitat. Also, public hunting lands would continue to be burdened within the region, as no new areas would be developed for general access hunting. The lack of new CREP acreage would also keep some marginal lands in agricultural production, instead of the more societally beneficial CPs.

## **5.0 CUMULATIVE EFFECTS**

### **5.1 Introduction**

The CEQ regulations stipulate that the cumulative effects analysis within a PEA should consider the potential environmental impacts resulting from the incremental impacts of the action when added to other past, present and reasonably foreseeable actions regardless of what agency or person undertakes such other actions. The CEQ guidance in Considering Cumulative Effects affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the Proposed Action. The scope must consider geographic and temporal overlaps affected by the Proposed Action and other programs or projects. It must also evaluate the nature of interactions among these actions.

Cumulative effects most likely arise when a relationship exists between a Proposed Action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in proximity to the Proposed Action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide, even partially, in time tend to have potential for cumulative effects.

### **5.2 Past, Present, and Reasonably Foreseeable Actions**

In this PEA, the affected environment for consideration of direct and indirect impacts includes those 28 counties where lands are eligible for enrollment in the proposed CREP. For the purposes of this analysis, the goals and plans of Federal programs designed to mitigate the risks of degradation of natural resources on private lands are the primary sources of information used in identifying past, present, and reasonably foreseeable actions. In addition to CREP, the State of Nebraska maintains and implements numerous Federal programs authorized under the Farm Bill to conserve and enhance the natural resources of the area. These programs include, but are not limited to, CRP, Wildlife Habitat Incentives Program, Environmental Quality Incentives Program, Wetlands Reserve Program, and the Grassland Reserve Program. Other Federal programs are sponsored by the USFWS such as the Partners for Fish and Wildlife and several wildlife habitat programs sponsored by the NDNR that could apply to CREP lands as well (Table 5.2-1).

Past, present, and reasonably foreseeable actions are considered generally for each resource included within Section 4.0 of this PEA and are presented in Table 5.2-2.

**Table 5.2-1. Federal and State Conservation Assistance Programs**

Program	Summary
Partners for Fish and Wildlife (USFWS, NDNR and Private Organizations)	The primary purpose of this program in Nebraska is for the restoration and enhancement of wetland natural hydrology through the blocking of drains, breaking tiles, filling in concentration pits, removing sediments, installing grass buffers, installing fences along stream corridors, and addressing other watershed problems. High priorities have been given to projects in the Rainwater Basin (south-central Nebraska), the Big Bend reach of the Central Platte River, and the Sandhills of north-central Nebraska. The program provides landowners with technical and financial assistance for restoring fish and wildlife habitat on their lands.
CRP Management Access Program (NGPC and Pheasants Forever [PF])	This is a joint NGPC and PF program whose goal is to enhance the habitat for wildlife on existing CRP land as well as provide access to hunters. Landowners are paid \$1 to \$5 per acre per year of land made available depending on the quality of the habitat and the extent of management.
Corners for Wildlife Program (NGPC, PF and NRDs)	A joint incentive program between NGPC, PF, NRDs, and the Nebraska Environmental Trust Fund to provide landowners cost share assistance and rental payments to establish wildlife habitat on the corners of center pivot irrigation fields or other agricultural fields.
Nebraska Soil and Water Conservation Program (Nebraska Natural Resources Commission)	This is a Nebraska Natural Resources Commission program that provides financial assistance to landowners for the installation of soil and water CPs. Up to 75% cost share is provided for various CPs. NRCS provides technical assistance for the planning and installation of the conservation measures, with the NRDs responsible for the administration of the program at the local level. Funds are paid if Federal programs do not address the specific practice, or if Federal funds are insufficient to satisfy landowner requests.
Landowner Incentive Program (USFWS and NGPC)	This program provides financial incentives and technical advice to private landowners for the improvement of habitat for at-risk species such as wetlands and prairie. Landowners enter into up to a 10-year management agreement, depending on the management plan, with NGPC. The program provides up to 75% Federal cost-share and 25% non-Federal matching payment for management practices to restore and improve habitat.
Agricultural Water Enhancement Program (AWEP) and the PBHEP (NRCS, NDNR, and NRDs)	This voluntary program provides assistance for the agricultural water enhancement activities on agricultural lands in order to reduce the water consumption and reduced surface water flows in five NRDs (Central Platte, Tri-Basin, Twin Platte, South Platte, and North Platte). The Federal funds of the AWEP will provide direct payments to landowners for the conversion of agricultural land from irrigated farming to non-irrigated land uses for a period of five years. Non-federal funds would be paid by PBHEP; a fund consisting of contributions from NDNR and NRDs, as well as a grant from the Nebraska Environmental Trust, and would be used to extend the conversion through the use of permanent easements.

**Table 5.2-2. Cumulative Effects Matrix**

<b>Resource</b>	<b>Past and Present Actions</b>	<b>Proposed Action</b>	<b>Future Actions</b>	<b>Cumulative Effects</b>
<b>Biological Resources</b>	Long-term positive impacts to vegetation, wildlife, and TES are expected to result under the current NPRRA CREP from the activities identified, which would establish permanent vegetative communities and create habitat for wildlife. No benefits to the additional lands along the North Platte and Platte Rivers, or the additional lands along the South Platte River, Lodgepole Creek, or upper portion of Pumpkin Creek would occur under past and present actions.	Long-term positive impacts to vegetation, wildlife, and protected species would result from expanding the CREP to the proposed CREP Amendment area.	Continued enrollment of farmland in programs which would restore habitats would continue to benefit biological resources.	Long-term benefits to biological resources would result from CREP and similar USDA programs and other State and Federal conservation programs that aim to restore habitats and improve water quality.
<b>Water Resources</b>	Long-term positive impacts to water quality are expected to result from programs that replace agricultural production with conservation measures. The goal of many conservation programs is to improve surface and groundwater quality, restore wetlands, and stabilize floodplains. However, greater benefits would not be realized within the expanded lands along	Long-term positive impacts to water quality and wetlands in the proposed NPRRA CREP Amendment area would result from the Proposed Action. Ground and surface water are expected to benefit from reduced runoff and filtration of agricultural chemicals. Benefits to floodplains would result as restored riparian and wetland habitats would hold water and	Continued enrollment of farmland in conservation programs would have positive impacts to water quality and quantity, similar to those described for the Proposed Action.	Positive long-term cumulative impacts to surface water quality, groundwater quality and quantity, wetland acreage and function, and floodplain stabilization are expected to result from the Proposed Action and other past present and reasonably foreseeable future actions.

**Table 5.2-2. Cumulative Effects Matrix (cont'd)**

<b>Resource</b>	<b>Past and Present Actions</b>	<b>Proposed Action</b>	<b>Future Actions</b>	<b>Cumulative Effects</b>
<b>Water Resources (cont'd)</b>	the North Platte and Platte Rivers, or the additional lands along the South Platte River, Lodgepole Creek, or upper portion of Pumpkin Creek under past and present actions.	slow flood waters. Surface and groundwater withdrawals for irrigation would decrease as enrollment in the NPRRA CREP increases.		
<b>Soil Resources</b>	Long-term positive impacts to soils result from past and present programs that use conservation measures to replace agricultural production. Permanent vegetative cover results in reduced erosion. However, greater benefits to the newly eligible lands in NPRRA CREP Amendment would not occur under past and present actions.	Long-term positive impacts to soils in the lands included in the proposed NPRRA CREP Amendment would result from stabilizing soils by establishing permanent vegetation.	Similar to that described for past and present activities. Programs that replace actively cultivated land with long-term vegetative covers are expected to result in stabilized soils.	Positive long-term impacts to soil resources would result from the Proposed Action and other known and reasonably foreseeable actions.
<b>Socioeconomics</b>	Past and present programs that offer monetary compensation for retirement and restoration of agricultural lands could positively impact local economies from increased recreation and reduction of soil erosion, agricultural pollutants, and improved water quality. The loss of agricultural lands may have a minor adverse affect on	A slight beneficial impact to the economy of the area would occur from the Proposed Action. Potential impacts would be similar as those described in past and present actions.	Continued enrollment of farmland is likely to have potential impacts similar to those described in past and present actions.	The Proposed Action along with past, present and future actions could result in direct or indirect impacts to the economy of the region. The loss of agricultural lands could have a short-term, minor impact to local economy but this is offset by gains in the recreational sector and net societal benefits of reduced soil erosion, improved water quality,

**Table 5.2-2. Cumulative Effects Matrix (cont'd)**

<b>Resource</b>	<b>Past and Present Actions</b>	<b>Proposed Action</b>	<b>Future Actions</b>	<b>Cumulative Effects</b>
<b>Socioeconomics (cont'd)</b>	agricultural sales or farm production expenses, but this is offset by gains in the recreational economy and net societal benefits of reduced soil erosion, improved water quality, and wildlife habitat restoration.			and wildlife habitat restoration. The influx of compensation for such programs could result in positive economic impacts.
<b>Recreation</b>	Long-term positive impacts to recreation would result from past and present conservation programs that protect and restore habitat. The associated increases in fish and wildlife populations would positively impact recreational activities such as hunting, fishing, bird and other wildlife watching; however, these benefits would not be realized in the additional lands included in the NPRRA CREP Amendment.	Under the Proposed Action, long-term positive impacts to water quality benefiting aquatic life and recreational activities such as fishing in the additional lands included in the NPRRA CREP Amendment would occur. Similarly, increases in wildlife habitat would likely increase game species, as well as wildlife watching opportunities.	Enrollment of farmland in conservation programs is expected to have continued positive impacts to recreational opportunities as described for the Proposed Action.	Like with other USDA programs, long-term positive impacts to recreation would occur from the Proposed Action and other known and reasonably foreseeable actions. Recreational opportunities would indirectly benefit through other Federal and State conservation programs that protect and restore habitat, resulting in improved wildlife-related recreation.

### **5.2.1 Cumulative Effects Matrix**

The incremental contribution of impacts of the Proposed Action, when considered in combination with other past, present, and reasonably foreseeable actions, are expected to add positively to the long-term cumulative impacts to biological, water, soil, and socioeconomic resources in the proposed expanded NPRRA CREP area. Short-term negative direct impacts to biological and water resources may occur during establishment of CPs. Table 5.2-2 summarizes cumulative effects.

### **5.3 Permanent Retirement of Irrigation**

Under the proposed NPRRA CREP Agreement Amendment, all CREP participants would have the option of entering into a State Water Use Contract which would require the permanent discontinuation of the use of water that had been applied to the enrolled irrigated cropland that had been used to irrigate the enrolled land prior to CREP. This agreement would take effect upon expiration of the CREP contract. Landowners that enter into the State Water Use Contract would agree to sell, at fair market value, permanent easements to the NRD in which the land is located, and forever refrain from irrigating the land and limit water use as stipulated in the contract.

#### **5.3.1 Republican River Compact**

On 31 December 1942, the states of Colorado, Kansas, and Nebraska entered into the Republican River Compact (NDNR No Date); whereby the water rights of the river were divided with 11 percent for Colorado, 40 percent for Kansas, and 49 percent for Nebraska (Milburn 2010). Nebraska, Colorado and Kansas have been involved in on-going litigation over disputed water rights for the Republican River in-stream flows. Kansas filed a complaint with the U.S. Supreme Court in 1998, alleging that Nebraska had violated the compact by allowing the use of groundwater hydraulically connected to the Republican River (Shultz and Schmitz 2010). A settlement agreement was reached in 2003; however, through on-going monitoring Kansas argued that from 2005 to 2006 Nebraska exceeded its available water rights allocation for the Republican River (Milburn 2010). The State of Nebraska is proposing to amend the NPRRA CREP to offer permanent retirement of water rights on enrolled lands as an additional tool to assist Nebraska in meeting compact compliance.

#### **5.3.2 Irrigation within the NPRRA CREP Area**

One characteristic of the CREP agreement is the temporary removal of cropland from irrigation practices into CPs, which do not require irrigation. The NPRRA CREP would temporarily reduce irrigation demand by 125,000 acre feet per year over the life of the 10 to 15 year contracts on all or part of 100,000 acres, while the State Water Use Contract would make these reductions permanent.

Nebraska ranks sixth in the total amount of water used for irrigation purposes, using 7,308 MGD of groundwater and 1,152 MGD of surface water for irrigation purposes (Kenny *et al.* 2009).

The counties under the current NPRRA CREP agreement withdrew 2,267.6 MGD of groundwater and 613.7 MGD of surface water for irrigation in 2005. The counties that would be included under the proposed Amendment contributed an additional 255.9 MGD of groundwater withdrawals and 13.4 MGD of surface water withdrawals in 2005. With an average irrigation rate of 0.8 acre feet per acre per year, the counties under the existing CREP agreement could withdraw up to 2.3 million acre feet of irrigation water and the counties that would be added under the proposed Amendment could have withdrawn just over 100,000 acre feet of irrigation water per year (NASS 2007 and 2010c). If all acreage that is currently enrolled in the NPRRA CREP were to enter into the State Water Use Contract, withdrawals for irrigation could be reduced by 33,467 acre feet per year (10.9 billion gallons/year), applying the 0.8 acre feet per year average rate. If all 100,000 acres authorized under the NPRRA CREP were to be retired, irrigation withdrawals could be reduced by 80,000 acres feet per year (26.1 billion gallons/year).

### **5.3.3 Economic Impacts of Irrigation Retirement**

In 2003, irrigated agriculture contributed \$4.5 billion in economic impact throughout the State, creating 36,000 jobs under normal precipitation conditions; 45,000 jobs were created under actual drought conditions that were observed in 2003 (Lamphear 2005). Off-farm costs associated with land retirement were found to be approximately \$203 per acre per year within the Platte River Basin during the initial period, and then declining over the 50-year analyzed time-frame and \$164 per acre for the first year and then declining through the analysis period in the Republican River Basin (Supalla *et al.* 2006).

Supalla *et al.* (2006) found that a long-term (50 years or more) land retirement program would create total economic costs of \$114 per acre foot of irrigation in the Platte River Basin and \$147 per acre foot of irrigation in the Republican River Basin. Therefore, if all retirement occurred in the NPRRA, total economic costs, including secondary or indirect costs would be approximately \$6.0 million. The total value of agricultural sales in the proposed CREP Amendment area exceeded \$4.7 billion and total farm production expenses exceeded \$3.8 billion in 2007 (NASS 2007). In 2009, the market value of field crops in Nebraska was estimated at approximately \$9.4 billion (NASS 2010b). The estimated cost of land retirement associated with irrigation use could decrease total economic impact of irrigated agricultural in Nebraska by an estimated 0.1 percent based on the estimated total economic value of irrigation (Lamphear 2005). Overall, effects to local economies from land retirement of irrigation water rights were relatively small, as indicated by the minimal effects on employment, population, and sales taxes during period of rapid irrigation growth from 1995 to 2005 in the Republican Basin (*Ibid.*). Supalla *et al.* (2006) also indicated that property taxes could be reduced up to two percent, which should have minimal effects, unless there is a high concentration of irrigation reductions in local areas.

Based on the existing literature, there would be no significant cumulative effects to the socioeconomic conditions of the proposed CREP area from the temporary and/or permanent retirement of irrigation water rights on enrolled CREP acres.

#### **5.4 Irreversible and Irretrievable Commitment of Resources**

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources has on future generations. Irreversible effects primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action. For the Proposed Action, no irreversible or irretrievable resource commitments would result.

### **6.0 MITIGATION**

#### **6.1 Introduction**

The purpose of mitigation is to avoid, minimize, or eliminate negative impacts on affected resources. CEQ regulations (40 CFR 1508.20) state that mitigation includes:

- avoiding the impact altogether by not taking a certain action or parts of an action;
- minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- compensating for the impact by replacing or providing substitute resources or environments.

#### **6.2 Roles and Responsibility**

CEQ regulations state that all relevant reasonable mitigation measures that could improve a project should be identified, even if they are outside the jurisdiction of the lead agency or cooperating agencies. This serves to alert agencies or officials who can implement these extra measures, and will encourage them to do so. The lead agency for this Proposed Action Alternative is FSA.

#### **6.3 Mitigation Matrix**

There are no expected major negative impacts associated with implementation of the Proposed Action. Prior to installation of CPs, producers must complete site-specific environmental analysis, which would reveal any protected resources on, or adjacent to the proposed enrolled lands. In those site-specific instances where a wetland, threatened or endangered species, or a cultural resource may be present, consultation with the appropriate lead agency would identify the potential severity of the impact and devise measures required to eliminate or reduce the negative impacts to those sensitive resources.

Activities may result in temporary impacts to vegetation and wildlife during preparation of the land for installing a CP. However, they may be mitigated by erosion control and BMPs such as saving topsoil for re-use, installing silt fencing, and vegetated filter strips.

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**9.0 REFERENCES**

- Bureau of Economic Analysis (BEA). 2010a. Table CA05 Personal Income and Detailed Earnings by Industry. <http://www.bea.gov/regional/reis/default.cfm#step3>. Accessed October 2010.
- Bureau of Economic Analysis (BEA). 2010b. Table CA25 Employment by Industry. <http://www.bea.gov/regional/reis/default.cfm#step3>. Accessed October 2010.
- Bureau of Labor Statistics (BLS). 2010. Local Area Unemployment Statistics, Not Seasonally Adjusted. <http://www.bls.gov/data/>. Accessed October 2010.
- Brady, N.C. 1990. The Nature and Property of Soils and Soil Taxonomy, 9th Edition. MacMillan Publishing: NY.
- Brady, N. and R. Weil. 1996. The Nature and Properties of Soils, 11th ed. Prentice-Hall, Inc., Upper Saddle River, NJ.
- Cole, G.A. 1994. Textbook of Limnology. Waveland Press, Inc. Prospect Heights, IL. 412pp.
- Commission for Environmental Cooperation (CEC). 1997. Ecological Regions of North America. [ftp://ftp.epa.gov/wed/ecoregions/cec\\_na/CEC\\_NAeco.pdf](ftp://ftp.epa.gov/wed/ecoregions/cec_na/CEC_NAeco.pdf): Accessed October 2010.
- Commission for Environmental Cooperation (CEC). 2010. North American Environmental Atlas. <http://www.cec.org/atlas/>: Accessed October 2010.
- Chapman, S. S., J.M. Omernik, J.A. Freeouf, D.G. Huggins, J.R. McCauley, C.C. Freeman, G. Steinauer, R.T. Angelo, and R.L. Schleppe. 2001. Ecoregions of Nebraska and Kansas (color poster with map, descriptive text, summary tables, and photographs). U.S. Geological Survey (map scale 1:1,950,000). Reston, Virginia. [http://www.epa.gov/wed/pages/ecoregions/ksne\\_eco.htm](http://www.epa.gov/wed/pages/ecoregions/ksne_eco.htm): Accessed October 2010.
- Dahl, T. E. 1990. Wetlands losses in the United States 1780's to 1980's. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/wetlands/wetloss/index.htm>. (Version 16JUL97). Accessed October 2010.
- Environmental Protection Agency (EPA). 2000. National Water Quality Inventory: 2000 Report. [http://water.epa.gov/lawsregs/guidance/cwa/305b/upload/2003\\_03\\_21\\_305b\\_2000report\\_nepr.pdf](http://water.epa.gov/lawsregs/guidance/cwa/305b/upload/2003_03_21_305b_2000report_nepr.pdf). Accessed October 2010.
- Environmental Protection Agency (EPA). 2006. Wetlands: Protecting Life and Property from Flooding. <http://www.epa.gov/owow/wetlands/pdf/Flooding.pdf>. Accessed October 2010.
- Environmental Protection Agency (EPA). 2009. 2008 Section 303(d) List Fact Sheet for Nebraska. [http://iaspub.epa.gov/waters10/state\\_rept.control?p\\_state=NE&p\\_cycle=](http://iaspub.epa.gov/waters10/state_rept.control?p_state=NE&p_cycle=). Accessed October 2010.
- Environmental Protection Agency (EPA). 2010a. Designated Sole Source Aquifers in EPA Region VII – Iowa, Kansas, Missouri, Nebraska. [http://www.epa.gov/safewater/sourcewater/pubs/qrg\\_ssamap\\_reg7.pdf](http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_reg7.pdf): Accessed September 2010.

## References

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- Environmental Protection Agency (EPA). 2010b. Overview of Impaired Waters and Total Maximum Daily Loads Program. <http://www.epa.gov/owow/tmdl/intro.html>. Accessed October 2010.
- Environmental Protection Agency (EPA). 2010c. Assessment Data for the State of Nebraska Year 2008. [http://iaspub.epa.gov/waters10/w305b\\_report\\_control.get\\_report?p\\_state=NE&p\\_cycle=#total\\_assessed\\_waters](http://iaspub.epa.gov/waters10/w305b_report_control.get_report?p_state=NE&p_cycle=#total_assessed_waters). Accessed October 2010.
- Economic Research Service (ERS). 2010a. U.S. and State farm income data. <http://www.ers.usda.gov/Data/FarmIncome/Finfidmu.htm>. Accessed October 2010.
- Economic Research Service (ERS). 2010b. Farm Income Data Files. State Net Value Added with Net Farm Income and Number of Farms, Lands in Farms, and Value of Farm Real Estate. <http://www.ers.usda.gov/Data/FarmIncome/FinfidmuXls.htm>. Accessed October 2010.
- Farm Service Agency (FSA). 2005. Final Programmatic Environmental Assessment, Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program (CREP). [http://www.fsa.usda.gov/Internet/FSA\\_File/necreppeafinal031705.pdf](http://www.fsa.usda.gov/Internet/FSA_File/necreppeafinal031705.pdf). Accessed October 2010.
- Farm Service Agency (FSA). 2009. FSA Handbook Environmental Quality Programs (1-EQ). [http://www.fsa.usda.gov/Internet/FSA\\_File/1-eq\\_r02\\_a01.pdf](http://www.fsa.usda.gov/Internet/FSA_File/1-eq_r02_a01.pdf): Accessed September 2010.
- Farm Service Agency (FSA). 2010a. Conservation reserve Program Monthly Summary – August 2010. [http://www.fsa.usda.gov/Internet/FSA\\_File/aug2010crpstat.pdf](http://www.fsa.usda.gov/Internet/FSA_File/aug2010crpstat.pdf): Accessed September 2010.
- Farm Service Agency (FSA). 2010b. Notice CRP-670, Waivers to Exclude Continuous Signup Cropland from County Cropland Limits.
- Farm Service Agency (FSA). 2010c. FSA Handbook Agricultural Resource Conservation Program (2-CRP). [http://www.fsa.usda.gov/Internet/FSA\\_File/2-crp-r05\\_a01.pdf](http://www.fsa.usda.gov/Internet/FSA_File/2-crp-r05_a01.pdf): Accessed September 2010.
- Kenny, J.F., Barber, N.L., Hutson, S.S., Linsey, K.S., Lovelace, J.K., and Maupin, M.A., 2009, Estimated use of water in the United States in 2005: U.S. Geological Survey Circular 1344, 52 p. <http://pubs.usgs.gov/circ/1344/>. Accessed October 2010.
- Lamphear, C. 2005. Economic Importance of Irrigated Agriculture 2003. Nebraska Policy Institute, Lincoln, Nebraska. [http://www.nefb.org/news/media/NPI\\_Irrigation\\_study.pdf](http://www.nefb.org/news/media/NPI_Irrigation_study.pdf). Accessed October 2010.
- Milburn, J. 2010. Official rules for Kansas in 3-state water dispute. Bloomberg BusinessWeek. 08 October. <http://www.businessweek.com/ap/financialnews/D9INON680.htm>. Accessed October 2010.

## References

---

- National Agricultural Statistics Service (NASS). 2007. Census of Agriculture, Volume 1 Chapter 2: Nebraska County Level Data. [http://www.agcensus.usda.gov/Publications/2007/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/Nebraska/index.asp](http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/Nebraska/index.asp). Accessed October 2010.
- National Agricultural Statistics Service (NASS). 2010a. Nebraska Agri-Facts Special Edition. [http://www.nass.usda.gov/Statistics\\_by\\_State/Nebraska/Publications/Special\\_Agri-Facts/agfspc10.pdf](http://www.nass.usda.gov/Statistics_by_State/Nebraska/Publications/Special_Agri-Facts/agfspc10.pdf): Accessed October 2010.
- National Agriculture Statistics Service (NASS). 2010b. Nebraska Field Office - Nebraska Agriculture Fact Card. <http://www.agr.state.ne.us/facts.pdf>: Accessed October 2010.
- National Agricultural Statistics Services (NASS). 2010c. Farm and Ranch Irrigation Survey 2008. [http://www.agcensus.usda.gov/Publications/2007/Online\\_Highlights/Farm\\_and\\_Ranch\\_Irrigation\\_Survey/fris08.pdf](http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Farm_and_Ranch_Irrigation_Survey/fris08.pdf). Accessed October 2010.
- Natural Resources Conservation Service (NRCS). 2006. Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, the Pacific Basin. Agricultural Handbook 296. [ftp://ftp-fc.sc.egov.usda.gov/NSSC/Ag\\_Handbook\\_296/Handbook\\_296\\_high.pdf](ftp://ftp-fc.sc.egov.usda.gov/NSSC/Ag_Handbook_296/Handbook_296_high.pdf). Accessed October 2010.
- Natural Resources Conservation Service (NRCS). 2009. 2007 National Resources Inventory, Natural Resources Conservation Service, Washington, DC, and Center for Survey Statistics and Methodology, Iowa State University, Ames, Iowa. [http://www.nrcs.usda.gov/technical/NRI/2007/2007\\_NRI\\_Summary.pdf](http://www.nrcs.usda.gov/technical/NRI/2007/2007_NRI_Summary.pdf). Accessed October 2010.
- Natural Resources Conservation Service (NRCS). 2010. The PLANTS Database. USDA NRCS National Plant Data Center, Baton Rouge, LA 70874-4490. <http://plants.usda.gov>: Accessed October 2010.
- NatureServe. 2010. NatureServe Explorer: An Online Encyclopedia of Life. Version 7.0. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. Accessed: October 2010.
- Nebraska Department of Economic Development, Research and Statistics (NDED). 2010. The Nebraska Databook. <http://www.neded.org/content/view/409/696/>: Accessed October 2010.
- Nebraska Department of Natural Resources (NDNR). No Date. Republican River Compact Document. <http://www.dnr.state.ne.us/Republican/RepublicanCompactDocument.pdf>. Accessed 11 October 2010.
- Nebraska Department of Natural Resources (NDNR). 2009a. Floodplain Management Q & A: Permits. [http://dnr.ne.gov/floodplain/PDF\\_Files/Permits.pdf](http://dnr.ne.gov/floodplain/PDF_Files/Permits.pdf). Accessed October 2010.

## References

---

- Nebraska Department of Natural Resources (NDNR). 2009b. Fully Appropriated and Overappropriated Surface Water in Nebraska. [http://www.dnr.state.ne.us/SurfaceWater/FullyOverAppropriatedAreaStatewide\\_0409.pdf](http://www.dnr.state.ne.us/SurfaceWater/FullyOverAppropriatedAreaStatewide_0409.pdf). Accessed October 2010.
- Nebraska Department of Natural Resources (NDNR). 2010. 2010 Spring Floods. [http://www.dnr.state.ne.us/floodplain/Newsletters/Floodplain\\_FloodUpdate\\_2010.pdf](http://www.dnr.state.ne.us/floodplain/Newsletters/Floodplain_FloodUpdate_2010.pdf). Accessed October 2010.
- Nebraska Department of Environmental Quality (NDEQ). 2006. 2005 Nebraska Surface Water Quality Monitoring Report. <http://www.deq.state.ne.us/Publications/Pages/WAT096>. Accessed October 2010.
- Nebraska Games and Parks Commission (NGPC). No Date. State Comprehensive Outdoor Recreation Plan (SCORP) 2006-2010. Lincoln, Nebraska. <http://outdoornebraska.ne.gov/parks/programs/scorp/>: Accessed October 2010.
- Nebraska Game and Parks Commission (NGPC). 2005. Guide to Nebraska's Wetlands and their Conservation Needs. <http://outdoornebraska.ne.gov/wildlife/programs/wetlands/>. Accessed October 2010.
- Nebraska Game and Parks Commission (NGPC). 2008. Estimated Current Ranges of Threatened and Endangered Species: List of Species by County. <http://outdoornebraska.ne.gov/wildlife/programs/nongame/pdf/TandESpecies.pdf>: Accessed October 2010.
- Nebraska Game and Parks Commission (NGPC). 2010a. Nebraska Wildlife Species Information. [http://outdoornebraska.ne.gov/conservation/wildlife\\_species.asp](http://outdoornebraska.ne.gov/conservation/wildlife_species.asp): Accessed October 2010.
- Nebraska Game and Parks Commission (NGPC). 2010b. Nongame and Endangered Species. <http://outdoornebraska.ne.gov/wildlife/programs/nongame/list.asp>: Accessed October 2010.
- Nebraska Games and Parks Commission (NGPC). 2010c. Nebraska Public Lands Interactive Mapping Tool. <http://outdoornebraska.ne.gov/gisapps/default.asp>. Accessed October 2010.
- Nebraska Games and Parks Commission (NGPC). 2010d. 2010 Nebraska Public Access Atlas. <http://outdoornebraska.ne.gov/hunting/programs/crp/maps/atlas.pdf>. Accessed October 2010.
- Omernik, J.M. 2007. Level III Ecoregion Descriptions. National Health and Environmental Effects Research Laboratory, U.S. Environmental Protection Agency. Corvallis, OR. <http://www.nps.gov/plants/SOS/pdf/SOS%20Omernik%20Level%20III.pdf>: Accessed October 2010.

- Qi, S.L., and J.J. Gurdak. 2006. Percentage of probability of nonpoint-source nitrate contamination of recently recharged ground water in the High Plains aquifer: USGS Data Series DS-192 (GIS dataset).
- Rolfsmeier, S.B., and G. Steinauer. 2010. Terrestrial Ecological Systems and Natural Communities of Nebraska (Version IV – March 9, 2010). Nebraska Natural Heritage Program Nebraska Game and Parks Commission. Lincoln, Nebraska.  
[http://www.prairienebraska.org/NE%20terr%20comm%20complete%20final%20doc%20in%20word%20\\_Mar%20202,%202010\\_.pdf](http://www.prairienebraska.org/NE%20terr%20comm%20complete%20final%20doc%20in%20word%20_Mar%20202,%202010_.pdf): Accessed October 2010.
- Schneider, R., M. Humpert, K. Stoner, G. Steinauer. 2005. The Nebraska Natural Legacy Project: A comprehensive wildlife conservation strategy. Nebraska Game and Parks Commission, Lincoln, Nebraska.  
<http://outdoornebraska.ne.gov/wildlife/programs/legacy/review.asp>: Accessed October 2010.
- Shultz, S. and N. Schmitz. 2010. The Implicit Value of Irrigation Through Parcel Level Hedonic Price Modeling. Submitted for Organized Symposium: “Quantifying the Determinants of the Land Values: The Impacts of Irrigation, Recreational Amenities, and off-Farm Income.” Agricultural and Applied Economics Association’s 2010 AAEA, CAES, & WAEA Joint Annual Meeting, Denver, Colorado, 25-27 July.  
[http://ageconsearch.umn.edu/bitstream/61801/2/aaea\\_shultz\\_2010.pdf](http://ageconsearch.umn.edu/bitstream/61801/2/aaea_shultz_2010.pdf). Accessed October 2010.
- Stanton, J.S., and L. Fahlquist. 2006. Ground-water quality beneath irrigated cropland of the northern and southern High Plains aquifer, Nebraska and Texas, 2003–04: U.S. Geological Survey Scientific Investigations Report 2006–5196.
- Stanton, J.S., and S.L. Qi. 2007. Ground-water quality of the northern High Plains aquifer, 1997, 2002–04: U.S. Geological Survey Scientific Investigations Report 2006–5138.
- Sullivan, P., D. Hellerstein, L. Hansen, R. Johansson, S. Koenig, R. Lubowski, W. McBride, D. McGranahan, M. Roberts, S. Vogel, S. Bucholtz. 2004. The Conservation Reserve Program Economic Implications for Rural America. US Department of Agriculture, Economic Research Service, Agricultural Economic Report Number 834.  
<http://www.ers.usda.gov/publications/aer834/>. Accessed October 2010.
- Supalla, R., T. V. Buell, and B. McMullen. 2006. Economic and State Budget Cost of Reducing the Consumptive Use of Irrigation Water in the Platte and Republican Basins. University of Nebraska – Lincoln. Agricultural Economics working paper 42.  
<http://digitalcommons.unl.edu/ageconworkpap/42/>. Accessed October 2010.
- The Groundwater Foundation. 2009. What is Groundwater?  
<http://www.groundwater.org/gi/whatisgw.html>. Accessed October 2010.

## References

---

- Umbanhowar, Jr., C.E. 1996. Recent Fire History of the Northern Great Plains. *American Midland Naturalist* 135(1):115-121.
- U.S. Army Corps of Engineers (USACE) 1987. Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1).  
<http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>. Accessed October 2010.
- U.S. Census Bureau (USCB). 2002. 2000 Decennial Census.  
[http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds\\_name=DEC\\_2000\\_SF3\\_U&\\_lang=en&\\_ts=304956886525](http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_2000_SF3_U&_lang=en&_ts=304956886525). Accessed October 2010.
- U.S. Census Bureau (USCB). 2010a. American Community Survey (ACS) Demographic and Housing Estimates – 2009. [http://factfinder.census.gov/servlet/ADPTable?\\_bm=y&-geo\\_id=04000US31&-qr\\_name=ACS\\_2009\\_1YR\\_G00\\_DP5&-context=adp&-ds\\_name=&-tree\\_id=309&-\\_lang=en&-redoLog=false&-format=](http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=04000US31&-qr_name=ACS_2009_1YR_G00_DP5&-context=adp&-ds_name=&-tree_id=309&-_lang=en&-redoLog=false&-format=). Accessed October 2010.
- U.S. Census Bureau (USCB). 2010b. Table 1. Annual Estimates of the Resident Population for Counties of Nebraska: April 1, 2000 to July 1, 2009 (CO-EST2009-01-31).  
<http://www.census.gov/popest/counties/CO-EST2009-01.html>. Accessed October 2010.
- U.S. Fish and Wildlife Service. 1978. Determination of Critical Habitat for Whooping Crane. *Federal Register* 43(94).
- U.S. Fish and Wildlife Service (USFWS). 2008. Nebraska Partners for Fish and Wildlife.  
<http://www.fws.gov/mountain-prairie/pfw/ne/index.htm>. Accessed October 2008.
- U.S. Fish and Wildlife Service 2010a. Endangered Species Program.  
<http://www.fws.gov/endangered/>: Accessed October 2010.
- U.S. Fish and Wildlife Service 2010b. Salt Creek Tiger Beetle. <http://www.fws.gov/mountain-prairie/species/invertebrates/saltcreektiger/>: Accessed October 2010.
- U.S. Fish and Wildlife Service and U.S. Census Bureau (USFWS and USCB). 2003. 2001 National Survey of Fishing, Hunting and Wildlife-Associated Recreation – Nebraska.  
<http://www.census.gov/prod/2003pubs/01fhw/fhw01-ne.pdf>. Accessed October 2010.
- U.S. Fish and Wildlife Service and U.S. Census Bureau (USFWS and USCB.). 2008. 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - Nebraska.  
<http://www.census.gov/prod/2008pubs/fhw06-ne.pdf>. Accessed October 2010.
- U.S. Geological Survey (USGS). 2007. National Water-Quality Assessment Program, High Plains Regional Ground Water Study.  
[http://co.water.usgs.gov/nawqa/hpgw/HPGW\\_home.html](http://co.water.usgs.gov/nawqa/hpgw/HPGW_home.html). Accessed October 2010.
- U.S. Geological Survey (USGS). 2009. Estimated Use of Water in the United States in 2005.  
<http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf>. Accessed October 2010.

## References

---

U.S. Geological Survey (USGS). 2010. Questions and Answers about Floods.  
<http://ga.water.usgs.gov/edu/qa/floods.html> . Accessed October 2010.

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**APPENDIX A**

**2005 Nebraska Platte-Republican Resources Area CREP Agreement  
Proposed NPRRA CREP Amendment**

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**2005 Nebraska Platte-Republican Resources Area CREP Agreement**

**AGREEMENT**

**BETWEEN**

**THE U.S. DEPARTMENT OF AGRICULTURE  
COMMODITY CREDIT CORPORATION**

**AND**

**THE STATE OF NEBRASKA  
CONCERNING THE IMPLEMENTATION OF A  
NEBRASKA PLATTE-REPUBLICAN RESOURCES AREA CREP**

This Memorandum of Agreement (Agreement) is entered into between the United States Department of Agriculture (USDA), Commodity Credit Corporation (CCC), and the State of Nebraska (Nebraska) to implement a Conservation Reserve Enhancement Program (CREP) for the improvement of water quantity and quality, and the enhancement of wildlife habitat through establishment of vegetative cover to reduce irrigation water consumptive use and agricultural chemical and sediment runoff into waters of the State. The CREP is part of the Conservation Reserve Program (CRP), operated by the Farm Service Agency (FSA) for CCC.

**I. PURPOSE**

The purpose of this Agreement is to allow, where deemed desirable by USDA, CCC and Nebraska, certain acreage in the targeted watersheds to be enrolled in the Nebraska Platte-Republican Resources Area CREP. (Figure 1)

**II. GENERAL PROVISIONS**

The goals of the Nebraska Platte-Republican Resources Area CREP are to enroll up to 100,000 eligible acres to significantly reduce the amount of irrigation water consumptive use, and agricultural chemicals and sediment entering waters of the State from agricultural lands and transportation corridors. The reduction of ground and surface water use and of non-point source contaminants, through establishment of permanent vegetative cover, will also enhance associated wildlife habitat, both terrestrial and aquatic.

The primary goals of this Agreement are to achieve, to the extent practicable when fully implemented, the following:

- A. Reduce the application of water for cropland irrigation in the priority area by

125,000 acre-feet annually from current irrigated usage levels.

- B. Increase surface and ground water retention by a target amount of 85,000 acre-feet of water annually within priority area reservoirs, groundwater tables and streams.
- C. Provide up to 85,000 additional acres of native grassland habitat for wildlife in the priority area, increasing the populations of pheasants and other ground nesting birds by 25 percent in the area.
- D. Provide up to 15,000 additional acres of conservation buffers and restored wetlands.
- E. Seek to reduce the application of triazine products by approximately 93,000 pounds annually, when fully enrolled, from existing application rates in the priority area.
- F. Seek to reduce leaching of nitrate compounds into project area streams and groundwater by 5,900,000 pounds annually, when fully enrolled, from the existing application rates in the priority area.
- G. Seek to reduce the application of phosphate products by approximately 2,440,000 pounds annually, when fully enrolled, from existing application rates in the priority area.
- H. Assist community public water supplies (surface and groundwater) by reducing nitrogen and phosphorus levels from agricultural activities.
- I. Provide educational assistance to project priority area irrigators to develop a more efficient use of applied water, nutrients, and herbicides.
- J. Monitor the aquatic communities and associated habitat parameters in project priority area reservoirs and rivers to determine biological relationships.
- K. For irrigation purposes, reduce the total consumption of fossil fuels by 350,000 gallons and electricity use by 10 million kilowatt hours.

### III. AUTHORITY

The CCC has the authority under provisions of the Food Security Act of 1985, as amended (1985 Act) (16 U.S.C. § 3830 et seq.), and the regulations at 7 CFR Part 1410 to perform all its activities contemplated by this Agreement. In accordance with the 1985 Act, CCC is authorized to enroll land in the CRP through December 31, 2007.

Authority for the State of Nebraska resides in Neb. Rev. Stat., Section 37-342 (Reissue 2004), Neb. Rev. Stat., Section 46-715 (Reissue 2004) and Neb. Rev. Stat., Section 61-206 (Reissue 2003).

This Agreement is not intended to, and does not, supersede any rules or regulations, which have been, or may be, promulgated by USDA/CCC and the State of Nebraska, or any other governmental entity participating in the CREP. This Agreement is intended to aid in the administration of the Conservation Reserve Program (CRP). Other authorities may also apply.

#### IV. PROGRAM ELEMENTS

In determining CCC's share of the cost of practice establishment, CCC shall use the appropriate CRP regulations and Farm Service Agency Handbook 2-CRP (USDA's written procedures for implementation of the CRP program). All approved conservation plans shall be consistent with applicable CRP statutes and regulations, specifications, in accordance with USDA policies for similar enrollments and this Agreement.

- A. For purposes of CRP land eligibility under the Nebraska CREP, acreage denoted in Figure 1, attached, has been approved by FSA as a State Conservation Priority Area for Water Quality.
- B. The CRP contracts for acres enrolled in this CREP must be for a period of 10 to 15 years.
- C. Eligible producers in the CREP project area may also continue to offer other eligible acreage for enrollment during CRP's general and continuous enrollment periods.
- D. CRP contracts executed under this Agreement will be administered in accordance with, and subject to, the CRP regulations at 7 CFR Part 1410, and the provisions of this Agreement. In the event of a conflict, the CRP regulations will be controlling.
- E. No lands may be enrolled under this program until the USDA's CREP Program Manager approves a detailed Nebraska State FSA supplement to Handbook 2-CRP, which will provide a thorough description of this program and applicable practices.
- F. Eligible practices for this CREP are:

CP2 - Establishment of Permanent Native Grasses  
CP4D - Permanent Wildlife Habitat

- CP21 - Filter Strips
- CP22 - Riparian Buffer
- CP23 - Wetland Restoration
- CP23A - Wetland Restoration, Non-Floodplain
- CP25 - Rare and Declining Habitat

- G. Irrigation requirements for land to be eligible to be enrolled under this program, as determined by the Deputy Administrator, FSA, are as follows:

Irrigated cropland must have been irrigated at the rate of not less than ½ acre foot per acre for 4 out of the 6 years, 1996-2001.  
Irrigated cropland must be physically and legally capable of being irrigated in a normal manner when offered for enrollment.  
A Nebraska State Water Use Contract is entered into between the producer and the State of Nebraska covering the irrigated cropland acres.

- H. For non-irrigated (dryland) cropland to be eligible to be enrolled under this program, the land must be a center-pivot corner enrolled with the adjacent irrigated center-pivot cropland area.

- I. For the Nebraska CREP, cropland and practices enrollment goals are as follows:

CP2, CP4D, and CP25 - up to 85,000 acres.  
CP21 and CP22 - up to 10,000 acres.  
CP23 and CP23A - up to 5,000 acres.

- J. For the Republican River Basin Area, up to 50,000 acres may be enrolled from those identified in section 4 I., above. (Figure 2).

- K. For the Platte River Basin Area, up to 50,000 acres may be enrolled from those identified in section 4. I., above, as follows:

Up to 40,000 acres may be enrolled in the designated area below Lake McConaughy (Figure 3).  
Up to 10,000 acres may be enrolled in the designated area above Lake McConaughy (Figure 4).

For the Platte River Basin Area outlined in Figure 4, the 10,000 acres are further divided as:

Up to 5,000 acres, served solely by groundwater wells, may be enrolled.

Up to 5,000 acres, served by either groundwater wells and/or surface water allocation, may be enrolled.

- L. Participants may be allowed to apply not more than 1/3 acre foot of irrigation water to enrolled land during the first 12 months of a CREP contract, but only if/when necessary to establish the vegetative conservation cover as outlined in an approved conservation plan. Otherwise, no irrigation water may be applied to the land at any time during the term of the CREP contract except as further agreed to by CCC.

**V. FEDERAL COMMITMENTS**

USDA and CCC agree to:

1. Providing cost-share payments to all participants for 50 percent of the eligible reimbursable costs for establishment of approved conservation practices. The total of all cost-share payments, from any sources, shall not exceed 100 percent of the producer's out of pocket expenses.
2. Make a one-time Practice Incentive Payment (PIP) for practices CP21 and CP22 consistent with the 2-CRP Handbook. The PIP is considered as part of the annual rental payment for payment limitation rule purposes.
3. Make a one-time incentive payment equal to 25 percent of the cost of restoring the hydrology of the site for practices CP23 and CP23A consistent with Handbook 2-CRP procedure. The 25 percent incentive payment is considered a rental payment for payment limitation rule purposes.
4. Make CRP land and producer eligibility determinations according to Handbook 2-CRP.
5. Under this CREP, make annual rental payments based on irrigated rental rates for each eligible enrolled irrigated acre in which a State Water Use Contract has already been secured. The per-acre, maximum irrigated rental rate in all cases will be equal to the sum of:
  1. The most current weighted-average, relevant posted irrigated cropland rental rate for the enrolled land for the relevant soil type in the relevant county; and
  2. A maintenance incentive payment in an amount according to the
  3. 2-CRP Handbook; this payment will be considered a rental payment for payment limitation purposes.

- F. Make annual rental payments based on dryland cropland rental rates for each eligible enrolled dryland cropland acre. The per-acre, maximum dryland cropland rate of payment in all cases is equal to the sum of:
  - 1. Posted dryland CRP soil rental rate based on the 3 predominant soils on the eligible dryland acreage offered according to 2-CRP Handbook procedure, i.e., the base soil rental rate; and
  - 2. A maintenance incentive payment in an amount according to the 2-CRP Handbook; this payment will be considered a rental payment for payment limitation purposes.
- G. Make a one-time Signing Incentive Payment (SIP) for practices CP21 and CP22 in accordance with the 2-CRP handbook. The SIP is considered part of the annual rental payment for payment limitation rule purposes.
- H. Administer CRP contracts for land enrolled under the CREP.
- I. Conduct compliance reviews according to the 2-CRP Handbook to ensure compliance with the CRP contract.
- J. Provide information to producers regarding Nebraska's CREP for technical assistance for the CREP program in general.
- K. Divide all payments between landlords and tenants and permit successors-in-interest to existing contracts to participate under CREP in the same manner as allowed for under any other CRP contract as provided in Handbook 2-CRP.
- L. Share appropriate data, in accordance with procedures and restrictions and exemptions established under the Federal Freedom of Information Act, federal privacy laws and other applicable laws, with Nebraska to facilitate State monitoring efforts.

## VI. STATE COMMITMENTS

Nebraska agrees to:

- A. Contribute not less than 20 percent nor more than 50 percent of the overall annual program costs, through cash contributions or certain in-kind services. Appendix A indicates the level of support that various local and state agencies have pledged to the project as in-kind services. The in-kind services include current water conservation activities, water quality activities, and

## Appendix A

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wildlife enhancement activities, proportioned out to reflect the amount of CREP area within each organization's individual jurisdiction.

- B. Be responsible for:
  - 1. Providing cost-share payments to all participants for 50 percent of the eligible reimbursable costs for establishment of approved conservation practices, not to exceed five million dollars (\$5,000,000.00). Total of all cost share payments, from any sources, shall not exceed 100 percent of the producer's out of pocket expenses;
  - 2. Paying all costs associated with annual monitoring programs; and
  - 3. Providing other wildlife conservation planning for producers on an as requested basis.
- C. Establish an Enhancement Program Steering Committee, which will include representatives from the State technical Committee, FSA, Nebraska Department of Natural Resources, Nebraska Game and Parks Commission, Nebraska Department of Agriculture, NRCS, agriculture and conservation groups and local governments. This group will advise the Nebraska Governor's office on the implementation of this CREP.
- D. Provide staffing support for a full-time CREP administrative coordinator to facilitate and oversee program implementation, coordination, promotional activities, technical assistance, and monitoring and evaluation.
- E. Seek applicants willing to offer eligible and appropriate land for enrollment in the CREP.
- F. Facilitate the provision of technical assistance from local conservation districts in promoting the CREP.
- G. Implement a broad campaign for continuous public information and education regarding the CREP.
- H. Work to ensure coordination with other agricultural conservation programs of State and federal agencies.
- I. Within 90 days after the end of each federal fiscal year, the Nebraska Department of Natural Resources shall provide a report to FSA summarizing the status of enrollments under this CREP and progress on fulfilling the other commitments of the program. The annual report to FSA shall include: level

of program participation; the results of the annual monitoring program; a summary of non-federal CREP program expenditures; and, recommendations to improve the program.

- J. Within 90 days after the end of the federal fiscal year, Nebraska will submit information summarizing its overall costs for the program. In the event that the State has not obligated 20 percent of the overall costs for the project, the State may be required by CCC to fulfill its obligation within 90 days, or to provide some other mutually agreed-upon remedy.
- K. Temporarily release the participant from any contractual or easement restrictions on crop production during the CRP contract period if such release is determined necessary by the U.S. Secretary of Agriculture in order to address a national emergency.
- L. For all cropland enrolled under a CREP contract at irrigated rental rates, the State shall enter into, and administer, a separate State Water Use Contract with each participant, or successor thereto, which shall require:

Discontinuation of the use of the water which had been applied to the enrolled irrigated cropland.

Management of the water under contract to ensure water savings conservation.

Non-use, except as provided below, of any surface or well water which, prior to enrollment in the CRP under this Agreement, had been used to irrigate the enrolled land, except as allowed for under the terms of this Agreement. Among other assurances as may be necessary or appropriate, the State Water Use Contract will require that the participant does not use, affect, transfer, sell, exchange or otherwise apply the surface or well water during the CRP contract period, except as agreed to by USDA. The State shall also require that the participant does not allow other individuals or entities to use, affect, transfer, sell, exchange or otherwise apply the surface or well water from the appropriation during the CRP contract period, except as agreed to by USDA.

- M. Take all reasonable steps to ensure use of the water savings achieved under the contracts in L. shall be used for environmental and public recreational purposes in a stream, river, aquifer, or reservoir except with respect to water savings under this CREP that would otherwise be retained in a reservoir for environmental and recreational purposes when the water levels exceed the applicable trigger point for the reservoir, as defined by the State of Nebraska and agreed to by the CCC, and the irrigation district. The trigger points listed

for the six reservoirs listed in Figure 5 attached, represent a level of water that the State has determined will provide substantial environmental benefits, including fishery benefits, water quality benefits, and benefits for recreation, and which is consistent with other reservoir operational requirements. The trigger points, expressed in acre feet of water at target water elevations, shall not in any instance for any of the six reservoirs be less in amounts of water than the amounts set out in Figure 5. The list of reservoirs with trigger point will not be changed unless otherwise agreed to by CCC. Nothing in this Agreement, however, authorizes any water use not otherwise authorized by law or the applicable authorities, or which is otherwise not permitted.

- N. Take all reasonable steps to enforce the requirements of the State Water Use Contracts.
- O. Seek the approval of this agreement by such independent boards or bodies within the State as may be necessary or appropriate to maximize objectives of this agreement.

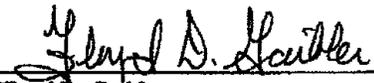
#### VII. MISCELLANEOUS PROVISIONS

- A. All commitments by USDA and Nebraska are subject to the availability of funds. In the event either party is subject to a funding limitation, it will notify the other party within 30 days and any necessary modifications may be made to this Agreement.
- B. All CRP contracts under this CREP shall be subject to all limitations set forth in the regulations at 7 CFR Part 1410 and the CRP contract, including, but not limited to, such matters as economic use, transferability, violations and contract modifications. Agreements between owners or operators and the State may impose additional conditions not in conflict with those under the CRP regulations, but only as approved by the USDA.
- C. Neither the State nor the USDA shall assign or transfer any rights or obligations under this Agreement without prior written approval of the other party.
- D. The State and the USDA agree that each party will be responsible for its own acts and results to the extent authorized by law and shall not be responsible for the acts of any others and the results thereof.
- E. This Agreement shall remain in force and effect until terminated by USDA, CCC or Nebraska. This Agreement may be terminated by either party upon written notice. Such termination will not alter responsibilities regarding

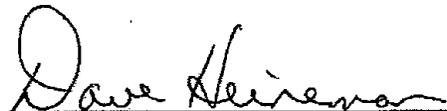
existing contractual obligations under the CREP between participants and USDA or CCC, or between participants and Nebraska.

- F. The Deputy Administrator for Farm Programs, Farm Service Agency or the Deputy Administrator's designee, is delegated authority to carry out this Agreement and, with the Governor of Nebraska, or the Governor's designee, may further amend this Agreement consistent with the provisions of the 1985 Act as amended and the regulations at 7 CFR Part 1410. The provisions of this Agreement may only be modified by written Agreement between the parties.

In Witness Whereof, the parties here have set their hands as of the dates indicated herein below.

  
\_\_\_\_\_  
Floyd D. Gabler  
Deputy Under Secretary  
Farm and Foreign Agriculture Services

3-19-05  
Date

  
\_\_\_\_\_  
Dave Heineman  
State of Nebraska

3-19-05  
Date

Appendix A

Appendix A  
List of In-kind Match Available from Organizations

The following list indicates the projected level of state and local in-kind services that will be designated toward matching project costs.

Entity	Project Annual Match
Bostwick Irrigation District	\$494,473
Central Platte Natural Resources District	\$345,460
Middle Republican Natural Resources District	\$151,116
Nebraska Department of Agriculture	\$13,500
Nebraska Department of Natural Resources	\$887,000
Nebraska Game and Parks Commission	\$130,000
Nebraska Public Power District	\$143,120
North Platte Natural Resources District	\$100,000
Pathfinder Irrigation District	\$190,500
Tri-Basin Natural Resources District	\$217,250
Twin Platte Natural Resources District	\$32,000
Upper Republican Natural Resources District	\$100,000
Lower Republican Natural Resources District	\$366,000
Total:	\$3,170,419

Figure 1

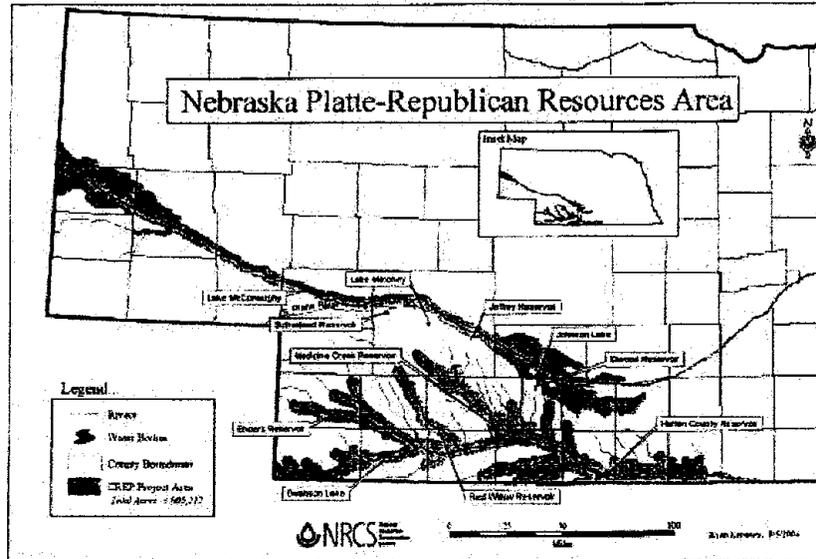


Figure 2

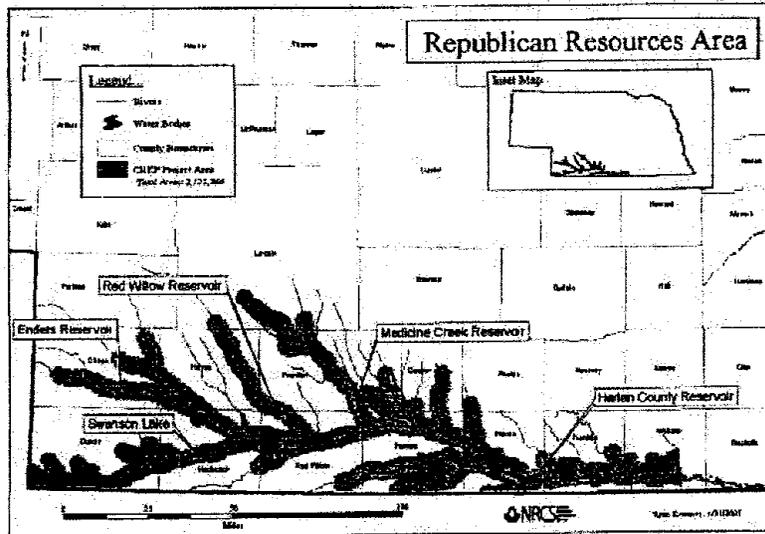


Figure 3

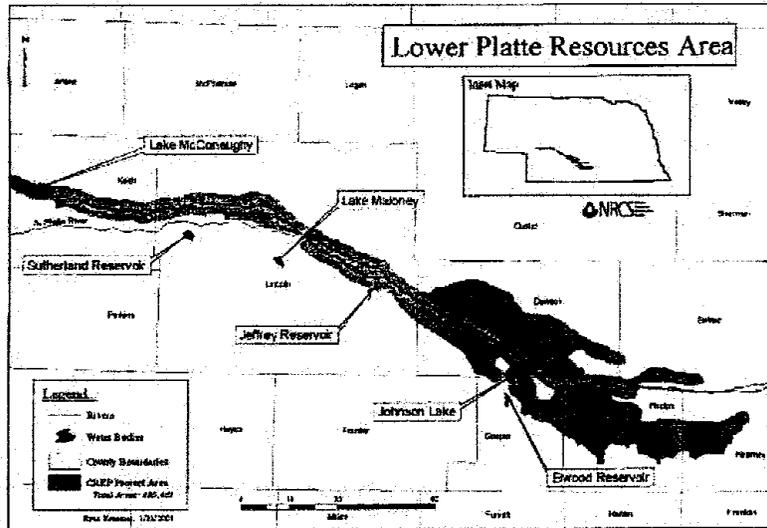


Figure 4

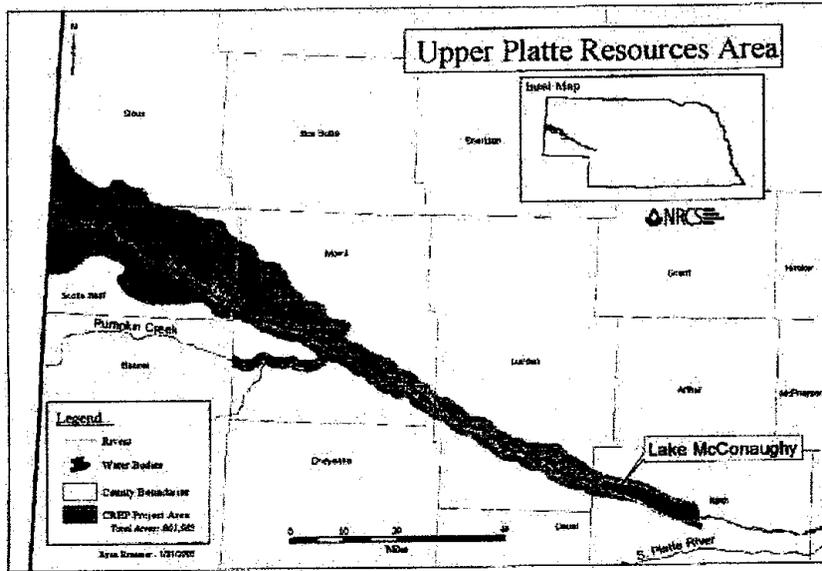


Figure 5

**Trigger Levels for Reservoirs in the Platte-Republican CREP**

State of Nebraska, provides the following target levels for purposes of CREP for each reservoir in the Republican River drainage and Lake McConaughy. The target elevation represents a level of water that will provide substantial environmental benefits, including fishery benefits, water quality benefits, and benefits for recreation, and which is consistent with other reservoir operational requirements.

Table 1.

Reservoir	Target Elevation	Acre-feet of Storage at Elevation
Enders Reservoir	3,089.4	14,000
Harlan Reservoir	1,927	118,099
Lake McConaughy	3,218	650,000
Medicine Creek Reservoir	2,355	19,631
Red Willow Reservoir	2,570	19,901
Swanson Reservoir	2,735	45,211

On March 19, 2005, the undersigned witnessed the signing of the Nebraska  
Platte-Republican Resources Area Conservation Reserve Enhancement Program  
Agreement between the State of Nebraska and the U.S. Department of Agriculture.

<u>Tom Orleans</u> 3/18/05 Date	<u>Carol Patton</u> 3/19/05 Date
<u>Alan E. Ellis</u> 3/19/05 Date	<u>Margaret Carlson</u> 3/19/05 Date
<u>Steph</u> 3/19/05 Date	<u>Milton Rogers</u> 3/19/05 Date
<u>Doyle Haag</u> 3/19/05 Date	<u>M. Ross D. Smith</u> 3/19/05 Date
<u>W. D. H.</u> 3/19/05 Date	<u>M. J. H.</u> 3/19/05 Date
<u>Dunkan</u> 3-19-05 Date	<u>Jim S. H.</u> 3/19/05 Date
<u>John F.</u> 3-19-05 Date	<u>Ray D. Wang</u> 3-19-05 Date

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**Proposed NPRRA CREP Amendment #3**

**AMENDMENT # 3 TO THE AGREEMENT**

**BETWEEN THE U.S. DEPARTMENT OF AGRICULTURE  
COMMODITY CREDIT CORPORATION**

**AND**

**THE STATE OF NEBRASKA  
CONCERNING THE IMPLEMENTATION OF A  
NEBRASKA PLATTE-REPUBLICAN RESOURCES AREA CREP**

**I. PURPOSE**

The purpose of this amendment to the agreement between the United States of Agriculture, the Commodity Credit Corporation, and the State of Nebraska is to implement a modified Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program.

**II. AMENDMENTS**

**Section IV.G is amended to read:**

G. Irrigation history requirements for land to be eligible to be enrolled under this program shall be determined according to the 2-CRP Handbook.

**Section V is restated, or amended to read:**

USDA and CCC agree to:

- A. Provide cost-share payments to all participants for 50 percent of the eligible reimbursable costs for establishment of approved conservation practices. The total of all cost-share payments, from any sources, shall not exceed 100 percent of the producer's out-of-pocket expenses.
- B. Make a one-time Practice Incentive Payment (PIP) for practices CP21, CP22, CP23 and CP23A consistent with the 2-CRP Handbook. The PIP is considered as part of the annual rental payment for payment limitation rule purposes.
- C. Make CRP land and producer eligibility determinations according to Handbook 2-CRP.
- D. Under this CREP, make annual rental payments based on irrigated rental rates for each eligible enrolled irrigated acre in which a State Water Use Contract has already been secured. The per-acre, maximum irrigated rental rate in all cases will be equal to the sum of:

## Appendix A

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1. The most current weighted-average, relevant posted irrigated cropland rental rate for the enrolled land for the relevant soil type in the relevant county; and
  2. A maintenance incentive payment in an amount according to the 2-CRP Handbook; this payment will be considered a rental payment for payment limitation purposes.
  3. A 20 percent soil rental rate (SRR) for practices CP21, CP22, CP23, and CP23A.
- E. Make annual rental payments based on dryland cropland rental rates for each eligible enrolled dryland cropland acre. The per-acre, maximum dryland cropland rate of payments in all cases is equal to the sum of:
1. Posted dryland CRP soil rental rate based on the 3 predominant soils on the eligible dryland acreage offered according to 2-CRP Handbook procedure, i.e., the base soil rental rate; and
  2. A maintenance incentive payment in an amount according to the 2-CRP Handbook; this payment will be considered a rental payment for payment limitation purposes.
  3. A 20 percent soil rental rate (SRR) incentive for practices CP21, CP22, CP23, and CP 23A.
- F. Make a one-time Signing Incentive Payment (SIP) for practices CP21, CP22, CP23, and CP23A in accordance with the 2-CRP handbook. The SIP is considered part of the annual rental payment for payment limitation rule purposes.
- G. Administer CRP contracts for land enrolled under the CREP.
- H. Conduct compliance reviews according to the 2-CRP Handbook to ensure compliance with the CRP contract.
- I. Provide information to producers regarding Nebraska's CREP for technical assistance for the CREP program in general.
- J. Divide all payments between landlords and tenants and permit successors-in-interest to existing contracts to participate under CREP in the same manner as allowed for under any other CRP contract as provided in Handbook 2-CRP.
- K. Share appropriate data, in accordance with procedures and restrictions and exemptions established under the Federal Freedom of Information Act, federal privacy laws and other applicable laws, with Nebraska to facilitate State monitoring efforts.

### **Section VI. State Commitments, items C and L are amended to read:**

- C. Establish an Enhancement Program Steering Committee, which shall include, but not be limited to, representatives from the State Technical Committee, Farm Service Agency, Nebraska Department of Natural Resources, Nebraska Game and Parks Commission, Nebraska Department of Agriculture, Nebraska Department of Environmental Quality, and the Natural Resource Conservation Service. This group will advise the Nebraska Governor's office on the implementation of the CREP.

- L. For all cropland enrolled under a CREP contract at irrigated rental rates, the State shall enter into, and administer, a separate State Water Use Contract with each participant, or successor thereto, which shall require:
- Discontinuation of the use of the water which had been applied to the enrolled irrigated cropland.
  - Management of the water under contract to ensure water savings conservation.
  - Non-use, except as provided below, of any surface or well water which, prior to enrollment in the CRP under this Agreement, had been used to irrigate the enrolled land, except as allowed for under the terms of this Agreement. Among other assurances as may be necessary or appropriate, the State Water Use Contract will require that the participant does not use, affect, transfer, sell, exchange or otherwise apply the surface or well water during the CRP contract period, except as agreed to by USDA and as documented by an amendment to the contract. The State shall also require that the participant does not allow other individuals or entities to use, affect, transfer, sell, exchange or otherwise apply the surface or well water from the appropriation during the CRP contract period, except as agreed to by USDA.

**Section VI, item G and H are added as follows:**

- G. The State may enter into an amendment of the Water Use Contract with the Landowner(s) to allow:
1. An easement permanently retiring the water use on the lands included under the CREP contract as long as all of the following conditions are met: (i) the permanent retirement takes effect at the end of the individual CREP contract; (ii) there is no transfer of the surface water appropriations or ground water use—the appropriation or use is permanently retired and is not used as an offset for any new or expanded use; (iii) the uses or appropriations retired are ground water uses and/or individually owned surface water appropriations (surface water appropriations held in the names of irrigation districts, public power and irrigation districts, or mutual canal or irrigation companies are not subject to such amendments); and (iv) the Landowner agrees to continue to adhere to all other terms of the Water Use Contract until the contract period of the Water Use Contract has ended and to fully participate and adhere to the requirements of CREP until the CREP contract has ended.
  2. For the transfer of the consumptive use portion of a surface water appropriation associated with the Water Use Contract to an instream augmentation appropriation as long as the water is protected from other users as allowed under the State's laws.
- H. The State may enter into a variance with the Landowner to allow the use of a well included under a Water Use Contract for a de minimis purpose other than irrigation. The maximum amount of water which will be approved under a variance is one acre-foot (325,851 gallons) per year. The limitation on the amount of water may be adjusted if there is a health issue that would affect public or private drinking water or for public safety reasons.

IT IS SO AGREED:

FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE AND THE COMMODITY  
CREDIT COPORATION

BY: \_\_\_\_\_  
Brandon, Willis  
Deputy Administrator for Farm Programs  
Farm Service Agency  
Deputy Vice President  
Commodity Credit Corporation

\_\_\_\_\_  
Date

FOR THE STATE OF NEBRASKA

BY: \_\_\_\_\_  
Dave Heineman, Governor

\_\_\_\_\_  
Date

**APPENDIX B**

**NPRRA CREP Conservation Practice Descriptions**

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**NPRRA CREP Conservation Practice Descriptions**

<b>Practice</b>	<b>Title</b>	<b>Purpose</b>
<b>CP2</b>	<i>Establishment of Permanent Native Grasses</i>	This practice is for the establishment of a permanent vegetative cover of native grasses. This area may be used for both managed and emergency haying and grazing as authorized.
<b>CP4D</b>	<i>Permanent Wildlife Habitat, Noneasement</i>	This practice establishes a permanent wildlife habitat cover to enhance benefits for wildlife of the designated and surrounding areas. A wildlife conservation plan is developed for acreage enrolled in this CP.
<b>CP21</b>	<i>Grassed Filter Strips</i>	The purpose of this practice is to remove nutrients, sediment, organic matter, pesticides and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake, denitrification and other processes. This would reduce pollution and protect surface and subsurface water quality.
<b>CP22</b>	<i>Riparian Buffer</i>	The purpose of this practice is to remove nutrients, sediment, organic matter, pesticides and other pollutants from surface runoff and subsurface flow, create shade to lower water temperature to improve aquatic habitat, and provide a source of detritus and large woody debris for aquatic organisms and habitat for wildlife. This would reduce pollution and protect surface and subsurface water quality.
<b>CP23</b>	<i>Wetland Restoration, Floodplain</i>	The purpose of this practice is to restore the functions and values of wetland ecosystems that have been devoted to agricultural use. The level of restoration of the wetland ecosystem shall be determined by the producer in consultation with NRCS or Technical Service Provider (TSP).
<b>CP23A</b>	<i>Wetland Restoration, Non-Floodplain</i>	The purpose of this practice is to restore the functions and values of wetland ecosystems that have been devoted to agricultural use. The level of restoration of the wetland ecosystem shall be determined by the producer in consultation with NRCS or TSP.
<b>CP25</b>	<i>Rare and Declining Habitat</i>	The purpose of this practice is to restore prairies using native cool and warm season grasses with wildflowers to increase plant diversity and provide habitat for declining wildlife species.

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**APPENDIX C**

**Agency Coordination Distribution List**  
**Draft PEA Agency Coordination Letter**  
**Final PEA Agency Coordination Letter**

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## Agency Coordination Distribution List

Organization	Representative	Address	City	State	Zip
Federal Agencies					
FSA, National Environmental Compliance Manager	Matthew Ponish	1400 Independence Ave., S.W. Room 4716, MS 0513	Washington	D.C.	20250
FSA, National CREP Manager	Lana Nesbit	1400 Independence Ave., S.W. Room 4957, MS 0513	Washington	D.C.	20250
FSA State Executive Director	Dan Steinkruger	7131 A Street	Lincoln	NE	68510
State Farm Service Agency (FSA)	Greg Reisdorff	7131 A Street	Lincoln	NE	68510
	Lavaine Moore	7131 A Street	Lincoln	NE	68510
Natural Resources Conservation Service (NRCS)	Michael Kucera	100 Centennial Mall N Rm 152	Lincoln	NE	68508-3866
	Ritch Nelson	1200 N St Ste 400	Lincoln	NE	68509-8922
	Steve Chick	100 Centennial Mall N, Rm 152	Lincoln	NE	68508-3866
U.S. Fish and Wildlife Service	Michael D. George	203 West 2nd St, Federal Building, 2nd Floor	Grand Island	NE	68801
State Agencies					
Nebraska Department of Natural Resources (NDNR)	Brian Dunnigan	PO Box 94676	Lincoln	NE	68509-4676
	Mike Thompson	PO Box 94676	Lincoln	NE	68509-4676
	Susan France	PO Box 94676	Lincoln	NE	68509-4676
	Bob Bettger	PO Box 94676	Lincoln	NE	68509-4676
Nebraska Department of Environmental Quality (NDEQ)	Elbert Traylor	PO Box 98922	Lincoln	NE	68509-8922
Nebraska Game and Parks Commission (NGPC)	Tim McCoy	2200 North 33rd Street	Lincoln	NE	68503
	Keith Koupal	1617 First Ave	Kearney	NE	68847
Nebraska Department of Agriculture (NDA)	Bobbie Kriz-Wickham	PO Box 94947	Lincoln	NE	68509-0947
Nebraska Farm Bureau	Jordan Dux	PO Box 80299	Lincoln	NE	68501

Appendix C

**Agency Coordination Distribution List (cont'd)**

<b>Organization</b>	<b>Representative</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
<b>Elected Officials</b>					
Agricultural Representative, U.S. Senator Ben Nelson	Dayle Williamson	11819 Miracle Hills Dr., Suite 205	Omaha	NE	68154
District Director, U.S. Congressman Smith, 3rd District	Mary Crawford	416 Valley View Avenue, Suite 600	Scottsbluff	NE	69361
State Agricultural Director, U.S. Senator Mike Johanns	Philip Erdman	100 Centennial Mall N Rm 294	Lincoln	NE	68508
<b>Local Agencies:</b>					
Middle Republican Natural Resources District (NRD)	Dan Smith	PO Box 81, 220 Ctr St	Curtis	NE	69025-0081
Central Platte NRD	Milt Moravek	215 N Kaurman Ave	Grand Island	NE	68803-4915
Lower Republican NRD	Mike Clements	PO Box 618 30 N John St	Alma	NE	68920-0618
Nebraska Association of Resources Districts	Pat O'Brien	PO box 98922	Lincoln	NE	68509-8922
Twin Platte NRD	Glen Bowers	PO Box 1347 111 S Dewey St 2 Fl	North Platte	NE	69103-1347
Upper Republican NRD	Jasper Fanning	PO Box 1140 135 W 5 St	Imperial	NE	69033-1140
<b>Non-Governmental Organizations</b>					
Pheasants Forever	Pete Berthelsen	1011 Alexander Avenue	Elba	NE	68835
<b>Irrigation and Power Districts:</b>					
Central Nebraska Power and Irrigation District	Marsha Trompke	PO Box 740	Holdrege	NE	68949-0740
Nebraska Public Power District Water Resources	Brian Barels	1414 15 St	Columbus	NE	68601
Pathfinder Irrigation District	Dennis Strauch (Pathfinder)	PO Box 338	Mitchell	NE	69357-0338
Bostwick Irrigation District	Mike Delka (Bostwick)	P.O. Box 446	Red Cloud	NE	68970-0446

## Draft PEA Agency Coordination Letter



2713 Magruder Blvd., Suite D • Hampton, VA 23666  
Phone: 757-873-3702 • Fax: 757-873-3703

[www.geo-marine.com](http://www.geo-marine.com)

November 12, 2010

To: *See Distribution List*

Re: Draft Supplemental Programmatic Environmental Assessment for an Amendment to the Nebraska Platte-Republican Resource Area Conservation Reserve Enhancement Program

Dear :

The United States Department of Agriculture, Farm Services Agency (FSA) on behalf of the Commodity Credit Corporation has prepared a Supplemental Programmatic Environmental Assessment (PEA) to assess the impacts of implementing an Amendment to the Nebraska Platte-Republican Resource Area (NPRRA) Conservation Reserve Enhancement Program (CREP). CREP was established in 1997 under the authority of the Conservation Reserve Program (CRP) to address agriculture-related environmental issues by establishing conservation practices (CPs) on agricultural lands using funding from Federal, State, and tribal governments as well as non-government sources. CREP addresses State-designated high priority conservation issues in defined geographic areas such as watersheds. Producers who voluntarily enroll their eligible lands in CREP receive financial and technical assistance for establishing conservation practices (CPs) on their land. The Nebraska NPRRA CREP is implemented in partnership with the Nebraska Department of Natural Resources.

The proposed Amendment would allow for: (1) enrollment of certain lands not included in the original agreement; (2) the State Water Use Contract to be amended, under certain conditions, to allow participants to enter into easements during the CREP Contract period for the permanent retirement of irrigation on lands enrolled in CREP, this permanent easement would not take effect until the CREP contract expired; (3) the State to allow transfer of the consumptive use portion of a surface water appropriation associated with a water use contract to an instream augmentation appropriation; and (4) the State to allow for a variance to the Water Use Contract to allow the landowner the use of a well for a *de minimus* purpose other than irrigation. Because program participation is voluntary, the locations and sizes of specific parcels that would be enrolled are not known. However, site-specific environmental evaluation of individual contracts would occur prior to acceptance into the program.

An electronic version of the Draft Supplemental PEA for the proposed expansion of the NPRRA CREP is now located at <http://public.geo-marine.com>. Electronic comments may be posted at this site as well. Written comments regarding this assessment can also be submitted to:

Nebraska Platte-Republican CREP PEA Comments  
c/o Geo-Marine Incorporated  
2713 Magruder Boulevard, Suite D  
Hampton, Virginia 23666  
Or emailed to [NebraskaCREP@geo-marine.com](mailto:NebraskaCREP@geo-marine.com)  
Or faxed to (757) 873-3703

Engineering and Environmental Services  
TEXAS • VIRGINIA • TENNESSEE • NORTH CAROLINA • NEW JERSEY • UTAH



2713 Magruder Blvd., Suite D • Hampton, VA 23066  
Phone: 757-873-3702 • Fax: 757-873-3703

[www.geo-marine.com](http://www.geo-marine.com)

**NPRRA CREP**  
November 12, 2010  
Page 2

Comments may also be submitted via email to [NebraskaCREP@geo-marine.com](mailto:NebraskaCREP@geo-marine.com). In addition, a public meeting to solicit comments on the Draft Supplemental PEA examining the environmental impacts of the proposed Amendment to the NPRRA CREP will be held on December 13, 2010 at 5:30 pm (CST) at the Sandhills Convention Center, 2102 S. Jeffers, North Platte, Nebraska.

Please submit all comments by December 15, 2010. Thank you in advance for your input; it will greatly assist FSA and the State of Nebraska in their planning.

Respectfully,

Brian E. Bishop, Project Manager

Engineering and Environmental Services  
TEXAS • VIRGINIA • PENNSYLVANIA • NORTH CAROLINA • NEW JERSEY • ILLINOIS

## Final PEA Agency Coordination Letter



2713 Magruder Blvd., Suite D - Hampton, VA 23666  
Phone: 757-873-3702 • Fax: 757-873-3703

[www.geo-marine.com](http://www.geo-marine.com)

January 13, 2011

To: *Insert Name/Address*

Re: Final Supplemental Programmatic Environmental Assessment for an Amendment to the Nebraska Platte-Republican Resources Area Conservation Reserve Enhancement Program

Dear *Insert name*:

The United States Department of Agriculture, Farm Service Agency (FSA) on behalf of the Commodity Credit Corporation has prepared a Supplemental Programmatic Environmental Assessment (PEA) to assess the impacts of implementing an Amendment to the Nebraska Platte-Republican Resources Area (NPRRA) Conservation Reserve Enhancement Program (CREP) and a Finding of No Significant Impact (FONSI) announcing that there would be no significant negative impacts from the implementation of the proposed Amendment. The CREP was established in 1997 under the authority of the Conservation Reserve Program (CRP) to address agriculture-related environmental issues by establishing conservation practices (CPs) on agricultural lands using funding from Federal, State, and tribal governments as well as non-government sources. The CREP addresses State-designated high priority conservation issues in defined geographic areas such as watersheds. Producers who voluntarily enroll their eligible lands in CREP receive financial and technical assistance for establishing conservation practices (CPs) on their land. The Nebraska NPRRA CREP is implemented in partnership with the Nebraska Department of Natural Resources.

The proposed Amendment would allow for: (1) enrollment of lands not included in the original agreement; (2) the State Water Use Contract to be amended, under certain conditions, to allow participants to enter into easements during the CREP Contract period for the permanent retirement of irrigation on lands enrolled in CREP which would not take effect until the CREP contract expired; (3) the State to allow transfer of the consumptive use portion of a surface water appropriation associated with a water use contract to an instream augmentation appropriation; and (4) the State to allow for a variance to the Water Use Contract to allow the landowner the use of a well for a *de minimis* purpose other than irrigation. Because program participation is voluntary, the locations and sizes of specific parcels that would be enrolled are not known. However, site-specific environmental evaluation of individual contracts would occur prior to acceptance into the program.

An electronic version of the Final Supplemental PEA for the proposed expansion of the NPRRA CREP and FONSI is now located at <http://public.geo-marine.com>. Electronic comments may be posted at this site as well. Written comments regarding this assessment can also be submitted to:

Greg Reisdorff, Conservation & Environmental Programs  
Nebraska Farm Service Agency  
7131 A Street  
Lincoln, NE 68510

Engineering and Environmental Services

TEXAS • VIRGINIA • TENNESSEE • NORTH CAROLINA • NEW JERSEY • UTAH



2713 Magruder Blvd., Suite D • Hampton, VA 23066

Phone: 757-873-3702 • Fax: 757-873-3703

[www.gmi-marine.com](http://www.gmi-marine.com)

**NPERRA CREP**  
January 13, 2011  
Page 2

Comments may also be submitted via email to [greg\\_reisdorff@ne.usda.gov](mailto:greg_reisdorff@ne.usda.gov).

Please submit all comments by February 14, 2011. Thank you in advance for your input; it will greatly assist FSA and the State of Nebraska in their planning.

Respectfully,

Brian E. Bishop, Project Manager

Cc: Matthew Polish, FSA  
Greg Reisdorff, FSA  
Susan France, NDNR

**APPENDIX D**

**Public Comments on Draft PEA**

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**Draft PEA Public Comment Summary**

<b>Last Name</b>	<b>First Name</b>	<b>Zip Code</b>	<b>State</b>	<b>Date Comment Received</b>	<b>Mode of Transmittal</b>	<b>Affiliation</b>	<b>Nature of Comment</b>	<b>Comment Summary</b>
Miller	Kent	69101	NE	12/13/10	Public Meeting	Twin Platte Natural Resources District	Proposed Action	We support these amendments and agree and support the showing of no negative impact from this activity. This is important for us considering the Upper Platte, North Platte and South Platte have been designated as overappropriated since 2004. We need programs like CREP and the opportunities CREP provides throughout the overappropriated area. Specifically, it would expand into the South Platte River Basin, which is only within Twin Platte Natural Resource District. I do believe that there will be land that would take advantage of this expansion.
Cacek	Ronald	69363 -0280	NE	12/15/10	Email	North Platte Natural Resources District	Proposed Action	The North Platte NRD agrees with and supports the conclusions reached in the Assessment. The provisions of the proposed Amendment would allow the opportunity for more land to be temporarily and permanently retired from irrigation thus helping us meet our natural resources management goals.

**Public Meeting Transcript**

**CREP Environmental Assessment Public Meeting**

**December 13, 2010**

**Page 1**

NEBRASKA PLATTE-REPUBLICAN RESOURCES AREA  
CREP ENVIRONMENTAL ASSESSMENT PUBLIC MEETING

PRESENTED BY BRIAN BISHOP  
NEPA Analyst/Environmental Scientist  
Geo-Marine, Inc.  
2713 Magruder Boulevard, Suite D  
Hampton, VA 23666

Taken at the Sandhills Convention Center  
2102 South Jeffers  
North Platte, Nebraska 69101  
December 13, 2010  
Commencing at 5:30 p.m.  
Concluded at 6:10 p.m.

Program Partners Present: Matt Ponish, National FSA  
Paul Cernik, NE FSA Office  
Lavaine Moore, NE FSA Office  
Susan France, NE DNR  
Bob Bettger, NE DNR  
Contractors Present: Brian Bishop  
Tony Cecchi  
Attendees Present: Dan Smith, MRNRD, 69025  
Kent O. Miller, TPNRD, 69101

-----  
Jennifer R. McCarter  
Shorthand Court Reporter

Reported By: Jennifer R. McCarter [www.huseby.com](http://www.huseby.com)  
HUSEBY, INC. - 1230 W. Morehead Street, #408, Charlotte, North Carolina 28208 (800) 333-2082

CREP Environmental Assessment Public Meeting

December 13, 2010

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PROCEEDINGS

MR. MILLER: My name is Kent Miller,  
M-i-l-l-e-r, and zip code 69101, and I'm general  
manager of the Twin Platte Natural Resources  
District.

I'd like to thank you for coming to  
North Platte to give us the opportunity to  
testify in support of these amendments and to  
state that we definitely agree and support with  
showing of no negative impact from this activity.

Specifically, you know, this is something,  
these amendments, this is something we have been  
working on as Natural Resource Districts for  
several years to add this additional opportunity  
for additional land within the Basin.

And this is pretty important for us  
considering -- and I'm talking about Platte River  
Basin, the Platte being the Upper Platte, the  
North Platte and the South Platte River Basins in  
Nebraska have been designated as overappropriated  
since 2004.

And that means we need programs like CREP,  
and we need the opportunities that CREP provides  
to be available throughout the overappropriated  
area. And these proposed amendments would do

## CREP Environmental Assessment Public Meeting

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1 that. It would make the CREP program available  
2 throughout the overappropriated area.

3 Specifically, it would expand into the  
4 South Platte River Basin, which is only within  
5 Twin Platte Natural Resource District in  
6 Nebraska. And that is something that as a  
7 Natural Resource District we have desired since  
8 the beginning of CREP and welcome this  
9 opportunity to expand into the South Platte River  
10 Basin. I do believe that there will be land that  
11 would take advantage of this expansion.

12 Secondly, as I mentioned earlier, the  
13 Platte River Basin is overappropriated, all of  
14 the Twin Platte NRD is within that  
15 overappropriated area of the Platte Basin. And  
16 this would allow the expansion of the CREP into  
17 those lands.

18 The other area that this would allow for is  
19 it would allow Upper Natural Resource Districts  
20 an opportunity to make permanent after the CREP  
21 portion concluded. This is very similar to  
22 what's available on the AWEP program, which funds  
23 were available in the Platte Basin earlier this  
24 year. We hope to be available in the future.

25 And I think AWEP is Agricultural Water

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1 Enhancement Program, and it's a program that's  
2 administered by the USDA NRCS. And that allows  
3 for -- I think it's five years of payments, and  
4 following that the Natural Resource District have  
5 the opportunity to enter into a permanent  
6 easement with folks to continue that. And I am  
7 pleased to see that that would also be available  
8 with this proposed amendments to the CREP.

9 I think it's very realistic that your  
10 findings show no negative impact because  
11 basically you are just simply adding more acres,  
12 making more acres available than what's currently  
13 available. There would be no added total acres  
14 as you indicated, so there's, you know, no  
15 additional, if you will, strain on the federal  
16 budget. It just allows the opportunity to  
17 utilize the acres that were anticipated  
18 originally, the 100,000, to be available and give  
19 the opportunity for more lands to take advantage  
20 of that.

21 So I want to state that the Twin Platte  
22 Natural Resource District supports these  
23 amendments, supports and agrees with the fact  
24 that there would be no negative impact from these  
25 amendments to the program. And simply, I'll

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1 state again, it just simply would be adding more  
2 acres the opportunity to participate.

3 I do know in conversations late this  
4 afternoon that representatives from the  
5 North Platte Natural Resource District and the  
6 South Platte Natural Resource District had hoped  
7 to be here today. And they had conflicts come up  
8 at the last moment and they were not able to be  
9 here. I do believe they will be submitting  
10 written testimony though, but I did want to  
11 indicate that they did desire to be here.

12 So again, thank you for the opportunity.  
13 And I do hope that these proposed amendments will  
14 be approved and made part of the CREP program.  
15 Thank you.

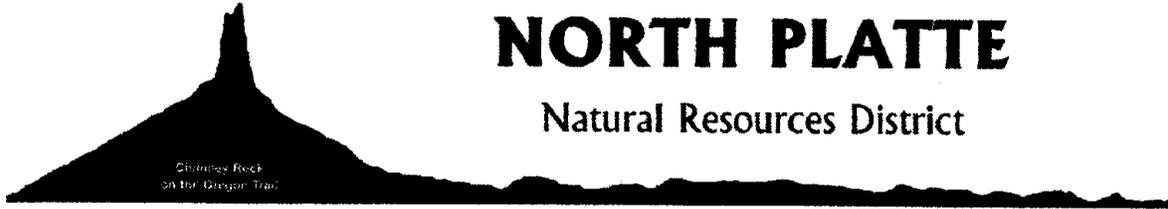
16 MR. BISHOP: We have time for any additional  
17 comments. Okay. I'd like to thank everybody for  
18 coming. Again, on behalf of FSA and the Nebraska  
19 Department of Natural Resources, thank you.

20 (Concluded at 6:10 p.m.)

21  
22  
23  
24  
25



**Draft PEA Public Comments**



P.O. Box 280 • 100547 Airport Rd. • Scottsbluff, NE 69363-0280 • Phone: 308 632-2749 • Fax: 308 632-4346

December 15, 2010

Nebraska Platte-Republican CREP PEA Comments  
c/o Geo-Marine Incorporated  
2713 Magruder Boulevard, Suite D  
Hampton, Virginia 23666

Dear Sirs:

Thank you for the opportunity to provide written comments on the Draft Supplemental Programmatic Environmental Assessment for an Amendment to the Nebraska Platte-Republican Resource Area Conservation Reserve Enhancement Program (the "Assessment"). The North Platte NRD agrees with and supports the conclusions reached in the Assessment.

The provisions of the proposed Amendment would allow the opportunity for more land to be temporarily and permanently retired from irrigation thus helping us meet our natural resources management goals.

Sincerely,

A handwritten signature in black ink that reads 'Ronald D. Cacek'. The signature is written in a cursive style.

Ronald D. Cacek  
Manager

**APPENDIX E**

**Threatened and Endangered Species and Critical Habitat**

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### Threatened and Endangered Species and Critical Habitat

Changes made to Threatened & Endangered Species Status Since the 2005 NPRRA CREP PEA (FSA 2005)

Scientific Name	Common Name	Status Change
<b>Birds</b>		
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Delisted Federal and State status – Currently protected under the Bald and Golden Eagle Protection Act
<b>Mammals</b>		
<i>Canis lupus</i>	Gray Wolf	Currently listed as Federally Endangered (not listed as Federally Threatened as previously stated in 2005 PEA) in Nebraska
<i>Cynomys ludovicianus</i>	Black-tailed Prairie Dog	Removed from candidate list and is currently not State or Federally listed
<b>Insects</b>		
<i>Cincindela nevadica lincolniana</i>	Salt Creek Tiger Beetle	Listed as Federally Endangered, October 2005, with approximately 1,933 acres (782 hectares) in Lancaster and Saunders Counties, NE, designated as critical habitat on April 2010
<b>Reptiles</b>		
<i>Sistrurus catenatus</i>	Massasauga	Federal Candidate species (not listed as Federally Threatened as previously stated in 2005 PEA) in Nebraska

Source NGPC 2010b; USFWS 2010a; USFWS 2010b

Federal and State Threatened and Endangered Species in the Lodgepole Creek, Upper Portion of Pumpkin Creek, and South Platte River Watersheds

County	Scientific Name	Common Name	Federal Status	State Status
<b>Banner</b>				
	<i>Charadrius montanus</i>	Mountain Plover	C	T
	<i>Vulpes velox</i>	Swift Fox		E
<b>Cheyenne</b>				
	<i>Charadrius montanus</i>	Mountain Plover	C	T
	<i>Vulpes velox</i>	Swift Fox		E
<b>Deuel</b>				
	<i>Vulpes velox</i>	Swift Fox		E
<b>Kimball</b>				
	<i>Gaura neomexicana</i> ssp. <i>coloradensis</i>	Colorado Butterfly Plant	T	E
	<i>Charadrius montanus</i>	Mountain Plover	C	T
	<i>Vulpes velox</i>	Swift Fox		E
<b>McPherson</b>				
	<i>Penstemon haydenii</i>	Hayden's (Blowout) Penstemon	E	E
	<i>Platanthera praeclara</i>	Western Prairie Fringed Orchid	T	T
	<i>Grus americana</i>	Whooping Crane	E	E

C – Candidate species; E – Endangered species; T- Threatened species

Source NGPC 2008

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**APPENDIX F**

**River and Stream Impairments within the Proposed Expanded CREP Agreement  
Amendment Area**

**Lake, Pond and Reservoir Impairments within the Proposed Expanded CREP Agreement  
Amendment Area**

**Approved TMDLs in the NPRRA since the 2005 PEA Causing Impairment of Water  
Quality Standards (WQS) and Designated Beneficial Use**

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**River and Stream Impairments within the Proposed Expanded CREP Agreement Amendment Area**

River/Stream	State Impairment	Parent Impairment	Priority	Potential Source of Impairment	TMDL
South Platte	Conductivity	Salinity/total dissolved solids (TDS) /Sulfates/Chlorides	High	Not reported	No
	Selenium	Metals (other than mercury)	High	Not reported	No
	Fish Consumption Advisory	Pollutant unspecified	High	Not reported	No
Pumpkin Creek	Selenium	Metals (other than mercury)	High	Not reported	No
	Low Dissolved Oxygen	Organic Enrichment/Oxygen Depletion	High	Not reported	No
Lodgepole Creek	Low Dissolved oxygen	Organic Enrichment/Oxygen Depletion	High	Not reported	No

**Lake, Pond and Reservoir Impairments within the Proposed Expanded CREP Agreement Amendment Area**

Watershed	Waterbody	State Impairment	Parent Impairment	Priority	Potential Source of Impairment	TMDL
South Platte	Birdwood Lake	Fish consumption advisory	Pollutant unspecified	High	Not reported	No
	East Hershey Lake	Fish consumption advisory	Pollutant unspecified	High	Not reported	No
	Goldeneye Pond	Conductivity	Salinity/TDS/sulfates/chlorides	High	Not reported	No
	Oliver Reservoir	Chlorophyll <i>a</i>	Algal growth	High	Not reported	No
		Dissolved oxygen	Organic enrichment/oxygen depletion	High	Not reported	No
		Fish consumption advisory	Pollutant unspecified	High	Not reported	No
	Sutherland reservoir	Fish consumption advisory	Pollutant unspecified	High	Not reported	No

**Approved TMDLs in the NPPRA since the 2005 PEA Causing Impairment of Water Quality Standards (WQS) and Designated Beneficial Use**

<b>Waterbody</b>	<b>TMDL Pollutant</b>	<b>Cause of Impairment</b>	<b>Date Established</b>	<b>Number of TMDLs</b>	<b>TMDL ID Number</b>
Platte River	<i>E. coli</i>	Fecal coliform	September 28, 2007	1	33357
Platte River	<i>E. coli</i>	Fecal coliform	September 28, 2007	1	33358

Source: EPA 2009

**APPENDIX G**

**NPRRA CREP Socioeconomic Factors**

**2007 NPRRA CREP Average Irrigation Rate**

**Nebraska Total and CREP Major Crop Harvested and Irrigated Acreage Matrix**

**Nebraska CREP Public Lands**

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**NPRRA CREP Socioeconomic Factors**

County	Farms		Land in Farms		Total Cropland		Irrigated Acres		Operations with Ag Tourism/Recreation Receipts		Receipts (\$)		Net Cash Farm Income from Operations (\$1,000)		Total Farm Production Expenses (\$1,000)		Total Sales (\$1,000)
	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
Banner	218	226	394,906	411,153	169,408	184,706	16,056	20,329	-	1	-	(D)	11,569	1,202	59,817	58,448	67,275
Buffalo	949	989	612,171	601,256	371,615	374,222	269,141	233,569	4	4	(D)	(D)	74,965	36,181	197,964	167,404	259,674
Chase	347	326	555,971	539,607	309,580	284,762	185,274	169,176	8	3	41,000	(D)	55,580	23,687	148,417	128,486	189,069
Cheyenne	603	616	754,598	803,181	556,005	599,057	51,318	51,138	2	6	(D)	12,000	47,331	10,079	116,316	88,469	151,884
Dawson	728	718	640,541	622,805	330,690	329,594	263,867	225,508	1	2	(D)	(D)	93,689	29,327	511,143	351,063	588,547
Deuel	240	252	278,915	293,995	231,828	258,035	17,853	17,026	2	2	(D)	(D)	12,629	1,069	45,445	31,485	53,069
Dundy	263	262	594,834	566,881	254,230	219,922	112,676	88,646	5	-	(D)	-	38,727	10,759	115,697	88,040	145,631
Franklin	312	378	291,515	331,093	165,034	181,208	87,295	92,791	4	7	7,000	8,000	26,713	10,924	58,728	49,942	78,295
Frontier	283	318	475,252	486,623	189,835	221,396	53,702	62,811	1	-	(D)	-	25,843	9,860	78,650	59,304	97,949
Furnas	365	412	445,844	440,776	276,450	299,442	51,894	68,008	2	2	(D)	(D)	39,698	4,412	112,531	88,804	141,947
Garden	297	253	1,048,554	1,072,024	187,960	178,270	44,854	34,781	2	10	(D)	55,000	27,369	5,225	58,630	51,873	81,136
Gosper	218	242	225,572	262,216	130,355	145,175	81,402	83,431	2	-	(D)	-	23,589	5,574	58,456	45,505	74,044
Harlan	384	346	350,947	308,814	224,467	194,266	107,551	71,750	4	2	(D)	(D)	40,752	3,539	101,695	58,351	134,346
Hayes	275	260	453,818	408,290	210,258	189,165	65,655	50,273	-	1	-	(D)	31,376	6,945	93,105	67,932	115,468
Hitchcock	272	299	347,924	433,525	192,582	251,380	18,998	31,751	6	-	21,000	-	21,055	3,972	42,880	31,447	58,757
Kearney	381	412	324,218	331,283	272,177	280,460	216,336	215,838	-	2	-	(D)	67,050	33,441	208,008	181,144	264,281
Keith	398	363	581,567	627,842	260,184	262,547	116,106	90,981	5	4	24,000	(D)	36,262	11,068	112,890	90,797	142,131
Kimball	372	362	527,611	549,646	346,020	354,389	33,283	26,783	7	6	6,000	44,000	14,109	4,104	29,473	22,340	35,788
Lincoln	1,053	959	1,601,185	1,529,011	527,021	431,478	322,916	207,412	6	14	27,000	61,000	97,762	25,944	355,287	273,280	431,868
McPherson	143	128	542,363	528,642	34,854	46,709	9,675	12,574	3	3	26,000	(D)	1,994	2,314	22,939	17,917	23,974
Morrill	495	443	902,005	872,351	266,348	233,629	144,581	123,031	10	13	57,000	52,000	68,899	15,928	185,660	151,850	245,411
Nuckolls	405	476	307,096	350,539	205,197	238,743	61,115	58,449	4	-	22,000	-	32,120	8,496	85,143	45,943	108,055
Perkins	446	438	558,405	548,264	444,497	437,642	133,393	121,683	2	7	(D)	6,000	53,320	17,639	96,923	76,550	135,515
Phelps	420	470	340,291	366,154	281,690	294,056	246,754	250,548	2	1	(D)	(D)	92,790	38,275	389,846	309,842	470,220
Red Willow	386	380	446,479	429,109	247,135	252,386	55,075	44,528	1	-	(D)	-	55,100	8,034	119,225	92,778	166,006
Scotts Bluff	730	780	360,286	427,400	192,776	234,443	155,576	172,955	9	12	5,000	20,000	35,494	15,356	186,605	183,665	214,509
Sioux	366	318	1,292,053	1,103,122	119,572	117,634	51,498	39,926	5	10	12,000	71,000	18,284	6,605	95,927	61,912	108,929
Webster	430	449	305,507	318,325	177,974	183,417	62,363	48,954	1	4	(D)	3,000	31,350	7,010	117,763	81,889	140,945
<b>Sum</b>	<b>11,779</b>	<b>11,875</b>	<b>15,560,428</b>	<b>15,563,927</b>	<b>7,175,742</b>	<b>7,278,133</b>	<b>3,036,207</b>	<b>2,714,650</b>	<b>98</b>	<b>116</b>	<b>248,000</b>	<b>332,000</b>	<b>1,175,419</b>	<b>356,969</b>	<b>3,805,163</b>	<b>2,956,460</b>	<b>4,724,723</b>
	-0.81%		-0.02%		-1.41%		11.85%		-15.52%		-25.30%		229.28%		28.71%		



**Nebraska Total and CREP Major Crop Harvested and Irrigated Acreage Matrix**

Field crop	2007 Harvested Acres			2007 Irrigated Acres			2002 Harvested Acres			2002 Irrigated Acres		
	All Counties	Existing Counties	Expanded Counties	All Counties	Existing Counties	Expanded Counties	All Counties	Existing Counties	Expanded Counties	All Counties	Existing Counties	Expanded Counties
Barley for grain (bushels)	259	44	215	215	0	215	419	0	419	226	0	226
Corn for grain (bushels)	2,702,493	2,634,265	68,228	2,083,533	2,083,366	167	1,853,339	1,804,625	48,714	1,604,557	1,567,778	36,779
Dry edible beans, excluding limas (cwt)	69,771	60,066	9,705	66,880	66,847	33	113,362	96,580	16,782	110,475	95,288	15,187
Oats for grain (bushels)	4,698	3,373	1,325	358	0	358	9,535	7,898	1,637	454	94	360
Other spring wheat for grain (bushels)	1,598	1,598		202	202	0		0			0	
Popcorn (pounds, shelled)	14,901	14,871	30	14,216	14,216		33,353	33,353		30,259	30,259	
Proso millet (bushels)	112,640	25,614	87,026	4,042	663	3,379	89,831	9,926	79,905	4,586	513	4,073
Rye for grain (bushels)	1,053	529	524	546	22	524	855	855			0	
Sorghum for grain (bushels)	118,139	116,624	1,515	8,181	8,181		110,160	108,021	2,139	4,749	4,749	
Soybeans for beans (bushels)	459,482	459,482		360,077	360,077		563,379	561,235	2,144	461,955	459,811	2,144
Sugarbeets for sugar (tons)	24,818	19,013	5,805	24,818	19,013	5,805	19,328	13,716	5,612	19,328	13,716	5,612
Sunflower seed, all (pounds)	32,984	15,693	17,291	8,435	5,427	3,008	25,793	10,232	15,561	2,219	1,050	1,169
Sunflower seed, non-oil varieties (pounds)	7,502	1,403	6,099	2,030	902	1,128	4,531	2,738	1,793		0	
Sunflower seed, oil varieties (pounds)	18,721	11,674	7,047	3,761	3,376	385	16,782	4,951	11,831	601	601	
Triticale (bushels)	248	248			0		366	366			0	
Wheat for grain, all (bushels)	1,354,213	919,646	434,567	140,012	119,558	20,454	1,201,496	758,125	443,371	70,378	52,901	17,477
Winter wheat for grain (bushels)	965,338	868,779	96,559	119,746	99,292	20,454	1,201,496	758,125	443,371	70,378	52,901	17,477
<b>Total</b>	4,895,699	4,269,468	626,231				4,021,216	3,404,932	616,284			
<b>Percentage</b>	21.75%	25.39%	1.61%									

Source: NASS 2007

**Nebraska CREP Public Lands (Number of Locations per County)**

<b>County</b>	<b>Public Waters</b>	<b>Public Hunting Lands</b>	<b>State Parks</b>
Banner	0	0	0
Buffalo	20	4	3
Chase	1	2	2
Cheyenne	0	0	0
Dawson	13	4	1
Deuel	2	2	0
Dundy	1	1	1
Franklin	0	5	0
Frontier	2	4	2
Furnas	0	2	0
Garden	3	1	1
Gosper	3	4	1
Harlan	2	1	0
Hayes	2	2	0
Hitchcock	1	2	1
Kearney	2	10	2
Keith	5	4	2
Kimball	3	1	1
Lincoln	24	9	3
McPherson	1	0	0
Morrill	6	3	1
Nuckolls	1	2	0
Perkins	0	0	0
Phelps	2	9	1
Red Willow	1	1	0
Scotts Bluff	11	8	2
Sioux	9	5	0
Webster	4	3	0
<b>Total</b>	119	89	24

Source: NGPC 2010c

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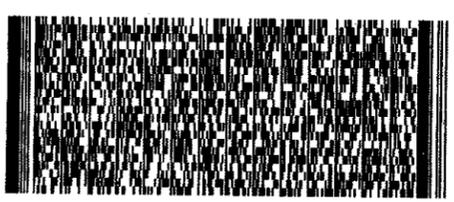
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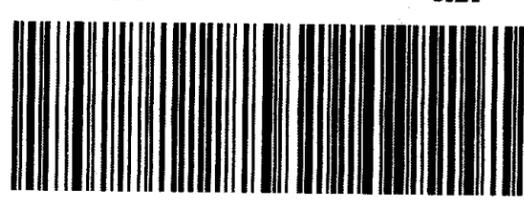


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