Draft
Rosebud Sioux Tribe
Conservation Reserve Enhancement Program
Supplemental Programmatic Environmental Assessment

August 2023

Prepared for U.S. Department of Agriculture Farm Service Agency

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COVER PAGE

Proposed Action: The United States Department of Agriculture (USDA), Commodity Credit Corporation (CCC) and the Rosebud Sioux Tribe propose to implement an amendment to the Rosebud Sioux Tribe Conservation Reserve Enhancement Program (CREP), a component of the Conservation Reserve Program (CRP). USDA is provided the statutory authority by the provisions of the Food Security Act of 1985, as amended (16 United States Code [U.S.C.] § 3830 et seq.), and the Regulations at 7 Code of Federal Regulations (CFR) Part 1410. In accordance with the 1985 Act and the Agricultural Improvement Act of 2018 (Public Law [PL] 115-334; the 2018 Farm Bill), USDA/CCC is authorized to enroll lands. The Farm Service Agency (FSA) would administer the CREP on behalf of the CCC. CREP is a voluntary land conservation program for agricultural producers.

Type of Document: Supplemental Programmatic Environmental Assessment (SPEA)

Lead Agency: USDA, Farm Service Agency (on behalf of CCC)

Sponsoring Agency: Rosebud Sioux Tribe

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Comments: This Draft SPEA has been prepared in accordance with the National Environmental Policy Act (NEPA) (Public Law 91-190); implementing regulations adopted by the Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508); and FSA's implementing regulations, Environmental Quality and Related Environmental Concerns – Compliance with NEPA (7 CFR Part 799). A hard copy of this Draft SPEA can be reviewed at the FSA SD State Office (address below) and the Todd County FSA office.

Written comments regarding this assessment shall be submitted to:

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
amsl	above mean sea level
APE	Area of Potential Effects
BA	Biological Assessment
BEA	Bureau of Economic Analysis
BIA	Bureau of Indian Affairs
BLS	Bureau of Labor Statistics
BMP	best management practices
CCC	Commodity Credit Corporation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CICP	Conditions for Implementing Conservation Practices
CO	carbon monoxide
CO_2	carbon dioxide
COC	Community of Comparison
CP	Conservation Practice
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CWA	Clean Water Act
EE	Environmental Evaluation
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FOTG	Field Office Technical Guide
FSA	Farm Service Agency
GHG	greenhouse gas
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NASS	National Agricultural Statistic Service
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PM_{10}	respirable particulate matter equal to or less than 10 microns in diameter)
$PM_{2.5}$	respirable particulate matter equal to or less than 2.5 microns in diameter)
PNS	primary nesting season
SCCWG	Sicangu Climate Crisis Working Group
SD	South Dakota
SDDANR	South Dakota Department of Agriculture and Natural Resources
SDDOT	South Dakota Department of Transportation
SHPO	State Historic Preservation Office

SIP	State Implementation Plan
SPEA	Supplemental Programmatic Environmental Assessment
TCP	Traditional Cultural Property
TSP	Technical Service Provider
U.S.C.	United States Code
US	United States
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

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1.0 INTRODUCTION

The U.S. Department of Agriculture (USDA) Commodity Credit Corporation (CCC) in cooperation with the Rosebud Sioux Tribe propose to implement an amendment to the Rosebud Sioux Tribe Conservation Reserve Enhancement Program (CREP) Agreement, which was signed in October 2022. This Supplemental Programmatic Environmental Assessment (SPEA) describes the potential environmental consequences resulting from the implementation of the proposed amendment to the CREP Agreement. The environmental analysis process is designed to ensure the public is involved in the process and informed about the potential environmental effects of the Federal action and to help decision makers take environmental and socioeconomic factors into consideration when making decisions related to the Proposed Action.

1.1 BACKGROUND

On behalf of the CCC, the USDA Farm Service Agency (FSA) administers the Conservation Reserve Program (CRP), the Federal government's largest private-lands conservation program. 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.

CREP is a program authorized under provisions of the Food Security Act of 1985, as amended (1985 Act) (16 United States Code [U.S.C.] § 3831 et seq.), and the regulations at 7 Code of Federal Regulations (CFR) Part 1410. It 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. CREP addresses state designated high priority conservation issues in defined geographic areas such as watersheds. Agricultural producers who enroll their eligible lands in CREP receive financial and technical assistance for establishing CPs on their land. In addition, producers 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 Handbook 2-CRP (Rev. 6), *Agricultural Resource Conservation Program* (USDA, 2023) and FSA Handbook 1-EQ (Rev. 3), *Environmental Quality*. Participation is voluntary, and the contract period is typically 10 to 15 years.

The Rosebud Sioux Tribe CREP Amendment project area includes the Rosebud Indian Reservation and Rosebud Sioux Tribal lands in Gregory County, Lyman County, Mellette County, Tripp County, and Todd County in South Dakota. The proposed amendment to the CREP would enroll a maximum of 900,000 acres of Tribal land owned by the Rosebud Sioux Tribe or a member of the Rosebud Sioux Tribe to implement grassland practice CP88, Permanent Grasses and Legumes. The purpose of the CP88 practice is to maintain existing vegetative cover of either introduced or native grasses and legumes on eligible grassland. To be eligible to be enrolled or re-enrolled, 100 percent of the land per CRP contract must be physically located within the CREP Amendment project area. See **Figure 1-1** for the boundaries of Rosebud Indian Reservation and the project area.

The purpose of the CREP Agreement is to allow, where deemed desirable and appropriate by the CCC and Rosebud Sioux Tribe, certain acreage physically located within the project area to be enrolled or re-enrolled, as applicable, in CRP through the CREP. The Rosebud Sioux Tribe CREP would reduce agricultural environmental impacts within the project area. The FSA, on behalf of CCC, would administer the CREP within South Dakota. CREP is just one option under CRP that farmers and ranchers may select to enhance their land. Eligible producers not participating in CREP may still enroll land in CRP through general, grassland, or continuous CRP signup.

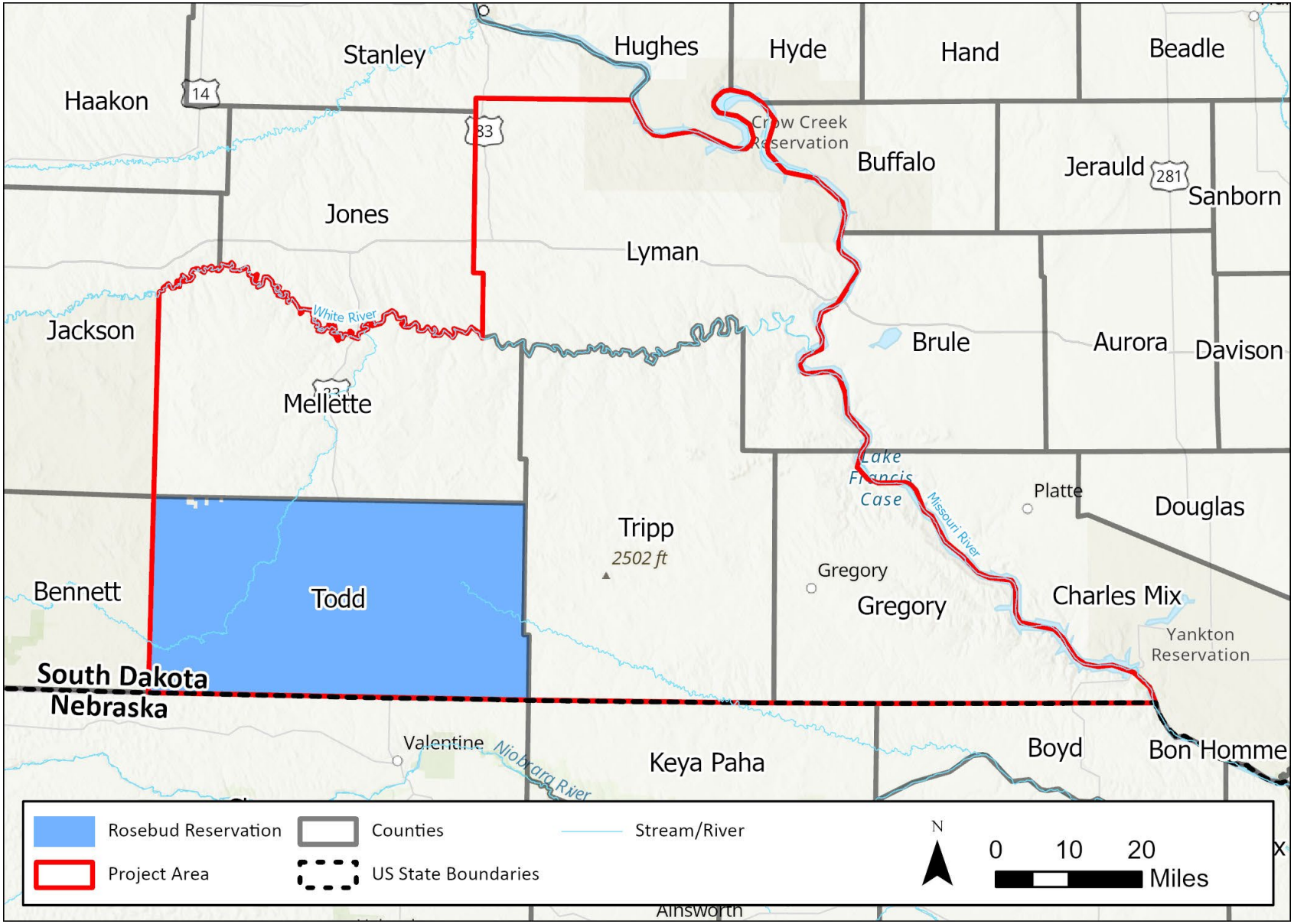

Figure 1-1. Location of the Project Area and Rosebud Indian Reservation within South Dakota

1.2 REGULATORY COMPLIANCE

The SPEA has been prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) (Public Law 91-190, 42 U.S.C. § 4321 et seq.); Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508); 7 CFR Part 799, *FSA NEPA Implementing Regulations*; FSA Handbook 1-EQ (Rev. 3), *Environmental Quality Programs* and FSA Handbook 2-CRP (Rev. 6), *Agricultural Resource Conservation Program*.

NEPA is a law that requires Federal agencies to consider the potential environmental consequences of Proposed Actions and alternatives to Proposed Actions. The law's intent is to protect, restore, or enhance the environment through well-informed Federal decisions. The CEQ was established under NEPA for the purpose of implementing and overseeing Federal policies as they relate to this process. In 1978, the CEQ issued Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508). On September 14, 2020, CEQ updated the NEPA regulations (85 *Federal Register* 43357-43376), which are being followed for this SPEA. CEQ regulations specify that an Environmental Assessment be prepared to:

- briefly provide sufficient analysis and evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact;
- aid in an agency's compliance with NEPA when no EIS is necessary; and
- facilitate preparation of an EIS when one is necessary.

A variety of other laws, regulations, and Executive Orders (EOs) apply to actions undertaken by Federal agencies. These form the basis of the analyses and are summarized in the SPEA where applicable. These include but are not limited to:

- Endangered Species Act (ESA)
- National Historic Preservation Act (NHPA)
- Clean Water Act (CWA)
- EO 11988, *Floodplain Management*
- EO 11990, *Protection of Wetlands*
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*
- EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to implement an amendment to the Rosebud Sioux Tribe CREP Agreement. The need for the Proposed Action is to reduce agricultural environmental impacts on the Rosebud Indian Reservation and Rosebud Sioux Tribally owned lands located within Gregory County, Lyman County, Mellette County, Tripp County, and Todd County in South Dakota through maintenance or improvement of grassland productivity and reduction in soil erosion within the project area.

The objectives of the Rosebud Sioux Tribe CREP are to:

1. Enroll up to 900,000 acres to maintain, improve, and protect grassland productivity through rotational grazing and water development;
2. Increase the average carrying capacity (animal units per acre) on land enrolled in the CRP through the CREP; and
3. Reduce erosion in riparian areas along water bodies through rotational grazing and cover enhancements.

Under the CREP, agricultural producers would voluntarily enter into contracts with the Federal government for 10 to 15 years, agreeing to maintain an existing vegetative cover of CP88, Permanent Grasses and

Legumes while retaining the right to conduct common grazing practices and operations related to the production of forage and seeding.

1.4 ORGANIZATION OF THE SPEA

This SPEA assesses the potential impacts of the Proposed Action and 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 for each of the potentially affected resources and describes potential environmental consequences on these resources, including cumulative impacts. **Chapter 4** contains a listing of the references cited in this SPEA. Various appendices are also included to support the analysis in the SPEA.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

On behalf of the CCC, the FSA proposes to implement the amendment to the Rosebud Sioux Tribe CREP Agreement by allowing enrollment of up to 900,000 acres of Tribal land within Gregory, Lyman, Mellette, Tripp, and Todd Counties in South Dakota. Rosebud Indian Reservation encompasses approximately 890,240 acres in southern South Dakota, west of the Missouri River (see **Figure 1-1**). Because program participation is voluntary, the locations and sizes of specific parcels that would be enrolled are not known. Participating producers would receive support for the costs of installing permanent fencing and livestock watering facilities needed to facilitate livestock grazing, as well as annual rental payments for those specific lands enrolled in the program. **Table 2-1** summarizes the components of the CREP.

The proposed CREP requires the use of CP88, Permanent Grasses and Legumes, whose purpose is to maintain existing vegetative cover of either introduced or native grasses and legumes on eligible CRP grassland. The purpose of CRP grasslands is to provide assistance to landowners and operators to protect grazing uses and related conservation values on eligible private pasture and rangelands. CRP grasslands emphasize support of grazing operations, maintaining and improving plant and animal biodiversity, and protecting grasslands and shrublands from the threat of conversion to uses other than grazing.

Table 2-1. Components of the Rosebud Sioux Tribe Conservation Reserve Enhancement Program Agreement

Component	Description
Acreage	Up to 900,000 acres
CREP Duration	15 years
Funding	Federal funding would be used for rental payments. Participants would receive annual rental payments of $15 per acre for all eligible grassland acreage offered.
Geographic Area	Gregory, Lyman, Mellette, Tripp, and Todd Counties, South Dakota
Counties	5
Conservation Practices	CP88, Permanent Grasses and Legumes
Contract Duration	10 to 15 years
Cost Share	USDA would provide cost-share payments to eligible participants for up to 50 percent of the eligible reimbursable costs incurred for establishing permanent fencing and livestock watering facilities needed to facilitate livestock grazing. The total of all cost-share payments from all sources shall not exceed 100 percent of the cost of the practice.

CREP = Conservation Reserve Enhancement Program; USDA = U.S. Department of Agriculture

2.1.1 Eligible Lands

The Rosebud Indian Reservation encompasses most of Todd County in South Dakota. To be eligible to be enrolled or re-enrolled, 100 percent of the Tribal land per CRP contract must be physically located within the CREP project area (**Figure 1-1**) as determined by CCC. Only Tribal land is eligible for enrollment under the CREP with “Tribal land” defined as land either owned by the Rosebud Sioux Tribe or owned by a member of the Rosebud Sioux Tribe. To be enrolled in CP88, the land must have an existing grass cover at the time it is offered for enrollment and meet all the eligibility criteria to be enrolled in CRP as grassland.

As defined in the FSA CRP handbook, land eligible for enrollment in CRP grasslands is land on a tract, or a portion of a tract, that (USDA, 2023):

- Contains forbs or shrubland (including improved rangeland and improved pastureland) for which grazing is the predominant use with less than 5 percent tree canopy interspersed throughout the offered acreage

- Is located in an area historically dominated by grasslands
- Provides habitat for animal and plant populations of significant ecological value if the land is retained in its current use or restored to a natural condition
- Is expiring CRP lands without tree practices

Once eligible lands are identified, a site-specific Environmental Evaluation (EE) would be completed prior to executing a contract. A Conservation Plan would also be developed; this plan would detail the installation and maintenance of CP88 to ensure that no adverse impacts are anticipated and that the goals of CREP are met throughout the life of the contract. The Conservation Plan would contain provisions for common grazing or forage management practices and related activities consistent with achieving CRP purposes and maintaining the health and viability of grassland resources.

The EE is completed by the Natural Resources Conservation Service (NRCS) or an approved Technical Service Provider (TSP) during the conservation planning process. NRCS or a TSP is responsible for the site-specific EE, technical leadership, and technical concurrence on Conservation Plans and any revisions. Similarly, they are responsible for collecting the data needed for FSA to ensure compliance with NEPA, NHPA, ESA, and other related laws, regulations, and EOs. The site-specific EE process is consistent with FSA's Environmental Quality and Related Environmental Concerns – Compliance with NEPA (7 CFR Part 799) and FSA Handbook 1-EQ (Rev. 3), *Environmental Quality Programs*. FSA reviews and completes sections of the site-specific EE to document that FSA has completed any required consultation with regulatory agencies. The site-specific EE, previous programmatic NEPA documentation, and this SPEA together would complete regulatory compliance for each contract enrolled under this CREP agreement.

2.1.2 Install and Maintain Conservation Practices

The practice proposed under the Rosebud Sioux Tribe CREP Agreement is specific to conditions known to exist within the project area. The purpose of CP88, Permanent Grasses and Legumes, is to maintain existing vegetative cover of either introduced or native grasses and legumes on eligible CRP grassland. More information on CP88 can be found in **Appendix A**. CRP grasslands allow for livestock grazing operations.

Installation and maintenance for CP88 may include:

- Installation of interior fencing needed to facilitate a livestock grazing system;
- Installation of access control devices, such as gates, for the purpose of controlling access to an area to maintain the quantity and quality of natural resources, or seasonal or permanent livestock exclusion;
- Development of ponds, wells, spring developments, pipelines, and water facilities to provide a water source for livestock;
- Construction of fuel breaks to control and reduce the risk of the spread of fire by treating, removing, or modifying vegetation, debris, and detritus;
- Development of trails and walkways to provide or improve access to forage, water, working/handling facilities, and/or shelter, to improve grazing efficiency and distribution, and to protect ecologically sensitive, erosive, and/or potentially erosive sites;
- Prescribed burning to improve plant production quantity and/or quality by managing fuel loads to achieve desired conditions. Prescribed fires would be performed under an approved burn plan and outside the primary nesting season (PNS) of May 1 through August 1;
- Common grazing practices, including maintenance and necessary cultural practices in a manner that is consistent with maintaining the viability of grassland, forb, and shrub species appropriate to the locality;
- Haying, mowing, or harvesting for seed production that is subject to appropriate restrictions for species identified by NRCS State Technical Committee focus areas; and
- Control of noxious weeds and other undesirable plants, insects, and pests as necessary to avoid an adverse impact on surrounding land. Chemicals used in performing the practice must be

Federally, state, and locally registered and applied according to authorized registered uses, label directions, and other applicable Federal or state policies and requirements.

An approved Conservation Plan is required prior to CRP contract approval and implementation. A Conservation Plan identifies conservation objectives and assesses the natural resource issues that are site-specific to the project area and the proposed CP. Conservation Plans are required to meet the NRCS Field Office Technical Guide (FOTG) planning criteria for each natural resource and must address economic and social considerations. The plan describes the schedule of operations and activities required to solve identified natural resource concerns. The approved plan is developed by the local NRCS representative or authorized TSP in cooperation with the participant. The approved Conservation Plan must:

- Contain all the practices necessary to successfully maintain the vegetative cover and install eligible components to facilitate a livestock grazing system.
- Be technically adequate to meet the objectives of CRP.
- Incorporate all Federal, state, and local permit requirements for use of agricultural chemicals such as fertilizer and herbicides.
- Be reviewed and approved by the conservation district.
- Ensure the conservation cover is not disturbed (i.e., haying and/or grazing) during PNS dates.
- Incorporate and adhere to county specific guidance from the NRCS CP Standards, identified in the FOTG, and in state or county specific technical notes.

2.1.3 Provide Financial Support

Agricultural producers enrolled in the CREP would enter into Federal contracts for a minimum of 10 and a maximum of 15 years that require the implementation of CP88 to receive financial and technical assistance. Producers would be eligible for annual rental payments for the duration of the contract and USDA would provide cost-share payments to eligible participants for up to 50 percent of the eligible reimbursable costs incurred for installing permanent fencing and livestock watering facilities needed to facilitate livestock grazing.

The annual rental payments provided would be comprised of a per acre grassland rental rate equal to $15 per acre for all eligible grassland acreage offered. The rental rate is potentially subject to change with future amendments to the CREP agreement. The yearly project cost from rental rates would be $13.5 million if 900,000 acres were enrolled at $15 per acre. The cost of the program would be shared between the Federal government and the Rosebud Sioux Tribe. The Rosebud Sioux Tribe would contribute a certain percentage of the overall annual program costs of the CREP through direct payments or in-kind contributions to eligible participants. This percentage has not yet been determined. The Rosebud Sioux Tribe would also pay all costs associated with monitoring activities under the CREP and could, at its discretion, pay to enhance the cover on land enrolled in CRP through the CREP.

2.2 SCOPING

Scoping is an early and open process for developing the breadth of issues to be addressed in an EA and for identifying significant concerns related to an action. Per the requirements of EO 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416, Federal, state, and local agencies with jurisdiction that could potentially be affected by the Proposed Action or alternatives were notified during the development of this SPEA. Pursuant to Section 106 of the NHPA and its implementing regulations in 36 CFR Part 800, *Protection of Historic Properties*, potentially affected Tribal governments were also contacted to help in identifying historic properties, cultural resources, and sites of religious or cultural significance that might be affected by the Proposed Action. The list of agencies contacted, copies of notification letters sent, and responses received are included in **Appendix B**.

The Rosebud Sioux Tribe would implement a broad, continuous outreach and promotion campaign of education regarding the CREP. Producers may be advised through meetings, direct mail, or other methods. Several organizations have been, and continue to be, involved in developing the CREP. These include:

- Rosebud Sioux Tribe
- USDA Farm Service Agency (FSA)
- Bureau of Indian Affairs (BIA)
- U.S. Fish and Wildlife Service (USFWS)

2.3 PUBLIC INVOLVEMENT

The FSA is providing a public review and comment period for the Draft SPEA from 16 August 2023 to 15 September 2023. A summary of the responses received during the comment period will be included in **Appendix B.7**.

2.4 ALTERNATIVES SELECTED FOR ANALYSIS

2.4.1 Proposed Action Alternative (Preferred Alternative)

Under the Proposed Action Alternative, the amendment to the Rosebud Sioux Tribe CREP Agreement would be fully implemented as described above. This would allow up to 900,000 acres of eligible lands to be managed as permanent grasslands to support grazing operations, maintain and improve plant and animal biodiversity, and protect grasslands and shrublands from the threat of conversion to other uses. CP88 would be maintained on eligible lands and producers would receive one-time cost share payments for installing permanent interior fencing and livestock watering facilities needed to facilitate livestock grazing, as well as annual rental payments. Based on the $15 per acre rental rate, the total yearly maximum cost of the program would be $13.5 million.

2.4.2 No Action Alternative

Under the No Action Alternative, the amendment to the CREP Agreement would not be implemented. No land outside of the Rosebud Indian Reservation boundary would be enrolled in CREP and the goals of CREP would not be met within the proposed CREP project area. Though eligible lands could be enrolled in CRP or other conservation programs, the benefits of the proposed CREP would not be realized. This alternative does not satisfy the purpose and need but is carried forward in the analysis to serve as a baseline against which the impacts of the Preferred Alternative can be assessed.

2.5 COMPARISON OF POTENTIAL ENVIRONMENTAL CONSEQUENCES

The potential impacts associated with the Proposed Action Alternative and No Action Alternative are summarized in **Table 2-2**. The summary is based on information discussed in detail in **Chapter 3** and includes a concise definition of the issues addressed and the potential environmental impacts associated with each alternative.

Table 2-2. Comparison of Potential Environmental Consequences of the Alternatives by Resource

Resource	Proposed Action Alternative	No Action Alternative
Biological Resources	There would be long-term beneficial impacts to vegetation, wildlife, and threatened and endangered species. Approved ongoing management practices such as access control, water facilities, fuel breaks, prescribed burning, and trails are not expected to adversely affect any threatened or endangered species with the implementation of Conditions for Implementing Conservation Practices.	Under the No Action Alternative, the proposed amendment to the CREP Agreement would not be implemented and lands that would have been eligible for enrollment would remain unprotected. The potential conversion of grassland to another type of agricultural production or development would reduce vegetative diversity, increasing susceptibility to invasion by exotic species. The benefits of protection and improvement of grassland productivity, reduction in soil erosion, and enhancement of wildlife habitat would not be realized. Conversion to another use would adversely affect threatened, endangered, and sensitive species currently inhabiting these grasslands by reducing or degrading available habitat.
Cultural Resources	Actions in this Supplemental Programmatic Environmental Assessment may have potential direct, indirect, and cumulative effects on cultural resources. Actions that would disturb previously undisturbed areas may result in impacts to known or unknown historic properties and Traditional Cultural Properties. Evaluation of cultural resources impacts for specific lands to be enrolled in CREP, including the identification of previously undisturbed land, is performed through site-specific Environmental Evaluations. If specific areas of concern are identified, per Section 106 of the National Historic Preservation Act, they would be reviewed in consultation with the South Dakota State Historic Preservation Office, Tribes, and participating state and Federal agencies during the planning and implementation phases.	Under the No Action Alternative, the proposed CREP Amendment would not be implemented and there would be no protection from conversion of the existing grasslands on the reservation. Under the No Action Alternative, there would be no adverse effect to historic properties as any significant cultural resources would retain their current condition.

Table 2-2. Comparison of Potential Environmental Consequences of the Alternatives by Resource

Resource	Proposed Action Alternative	No Action Alternative
Water Resources	Implementation of the proposed amendment to the CREP Agreement would have long-term beneficial impacts on surface water, wetlands, floodplains, and groundwater. Some installation and maintenance activities may require small-scale construction and land disturbance and the use of agricultural chemicals. The use of best management practices would reduce impacts from land disturbance and would contain sediment within the site. These potential impacts would be short-term. localized, and temporary. Additionally, application of agricultural chemicals in accordance with label requirements would minimize pollutants in runoff.	Under the No Action Alternative, the CREP Amendment would not be implemented, and current agricultural practices would continue. There would be no impacts to water resources from implementation of the No Action Alternative. The beneficial impacts to surface water, wetlands, floodplains, and groundwater from installing CP88 would not be realized.
Air Quality	Implementation of the proposed amendment to the CREP Agreement may have a long-term beneficial effect on air quality due to the potential for carbon sequestration. Some installation and maintenance activities may produce dust and exhaust emissions that could have a negligible to minor temporary adverse effect on air quality in localized areas.	Implementation of No Action Alternative would not change existing air quality conditions. The amendment to the CREP Agreement would not be implemented, existing grassland practices would continue, and air quality conditions would not change. Also, under the No Action Alternative, existing grasslands and shrublands could be converted to uses other than grazing. This could result in increases in greenhouse gas emissions and criteria pollutants.
Soils and Topography	Long-term beneficial impacts are expected to occur from stabilization of soils and topography. Short-term disturbances to soils could result from the installation of various structures to implement rotational grazing. These ground disturbing activities may result in temporary minor increases in soil erosion; however, they would be reduced by implementing erosion control best management practices.	Under the No Action Alternative, the proposed amendment to the CREP would not be implemented. Eligible lands would not be enrolled in the proposed CREP and potential benefits to soils and topography would not occur. The beneficial impacts associated with the expected reduction in erosion would not occur and soil degradation would continue.

Table 2-2. Comparison of Potential Environmental Consequences of the Alternatives by Resource

Resource	Proposed Action Alternative	No Action Alternative
Socioeconomics	Implementation of the Proposed Action Alternative would have long-term beneficial impacts on socioeconomics for agricultural producers. Individual producers would benefit financially from rental rates but would also benefit financially from increased grassland productivity and carrying capacity. Additionally, implementation of the Proposed Action Alternative would result in long-term beneficial impacts on regional socioeconomics. The CREP would result in enhanced wildlife habitat, which would contribute positively to recreational expenditures related to wildlife viewing, hunting, and fishing. The Proposed Action is unlikely to produce significant changes in general population characteristics.	Under the No Action Alternative, the CREP Amendment would not be implemented, and current agricultural practices would continue. 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 implementing CP88 that include improvements in water quality, soil retention, grassland productivity, carrying capacity, and wildlife habitat. Any regional economic benefits from increased hunting, fishing, and wildlife-watching expenditures would not be realized.
Environmental Justice	The majority of the environmental impacts would be beneficial to the region and the producers enrolling land into the CREP. There would be no environmental justice issues from implementation of the Proposed Action Alternative. The Proposed Action Alternative would not substantially affect populations covered by Executive Order 12898 by excluding persons, denying persons benefits, or subjecting persons to discrimination or disproportionate environmental or human health risks.	Under the No Action Alternative, there would be no changes to the existing agricultural lands on the Rosebud Indian Reservation; therefore, implementation of this alternative would not result in disproportionate adverse environmental or health effects on low-income or minority populations. The No Action Alternative would not substantially affect populations covered by Executive Order 12898 by excluding persons, denying persons benefits, or subjecting persons to discrimination or disproportionate environmental or human health risks.

CREP = Conservation Reserve Enhancement Program

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3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter analyzes the potential impacts on existing environmental conditions associated with the Proposed Action on the Rosebud Sioux Tribal lands. The analysis considers the current, baseline conditions of the affected environment and compares those to the conditions that might occur should FSA implement the Proposed Action Alternative or the No Action Alternative.

A justification for those resources eliminated from analysis is provided in this section. Then, each resource included in the analysis is defined and its evaluation criteria are outlined. Lastly, a description of the existing conditions and a discussion of potential direct, indirect, and cumulative impacts is provided.

3.1 RESOURCE AREAS ELIMINATED FROM ANALYSIS

Several resources were considered relative to the Proposed Action but were not carried forward for detailed analysis. They include resources whose baseline conditions lacked a relationship to, and any potential to be altered by, implementation of the Proposed Action.

3.1.1 Prime and Unique Farmland

The Farmland Protection Policy Act was passed by Congress as part of the Agriculture and Food Act of 1981. The Act is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. Grassland CRP is a working lands program. that helps farmers enhance the sustainability of their operations while keeping land in agricultural production. CP88 continues to allow agricultural use through haying and grazing provisions and livestock operations. For these reasons, the Proposed Action Alternative is not expected to have adverse effects on Prime and Unique Farmland.

3.1.2 Noise

Implementing the Proposed Action Alternative would not permanently increase ambient noise levels at or adjacent to the project area. Noise from heavy equipment is common on agricultural lands and farmlands that could be enrolled in the CREP. The potential for increased noise levels associated with implementing CP88 would be minor, temporary, localized, and would cease once implementation of CP88 is complete.

3.1.3 Coastal Zone Management and Coastal Barriers

The proposed amendment to the CREP for Rosebud Sioux Tribal lands located in the southern South Dakota does not contain land within or near a designated Coastal Zone Management Area, therefore, the Coastal Zone Management Act of 1972 does not apply. Similarly, the proposed CREP does not include development on coastal barriers, so the Coastal Barrier Resources Act of 1982 does not apply.

3.1.4 Sole Source Aquifers

Sole source aquifers are protected under the Safe Drinking Water Act. Special care must be taken to protect aquifers which the U.S. Environmental Protection Agency (USEPA) has designated as sole source aquifers, which are aquifers that supply at least 50 percent of the drinking water consumed in the area overlying the aquifer. There are no designated sole source aquifers in South Dakota (USEPA, 2022).

3.1.5 Other Protected Resources

Other protected resources are lands preserved and managed by state or Federal governments for the purpose of conservation, recreation, or research. This includes, but is not limited to, National Historic Landmarks, Wetland Management Districts, National Wildlife Refuges, Wild and Scenic Rivers, National Parks, and National Forests. No protected lands were found within the Rosebud Sioux Tribe CREP Amendment project area, so this resource was dismissed from the analysis.

3.2 ANALYZED RESOURCES AND EVALUATION CRITERIA

The following is provided in this section: a description of general evaluation criteria and impact levels, the list of analyzed resources, and a description of the area of potential effects (APE) of potential consequences for the resources analyzed.

The APE for the resources analyzed in this SPEA is the land within the Rosebud Indian Reservation and CREP eligible lands within Gregory, Lyman, Mellette, Tripp, and Todd Counties in South Dakota. The specific criteria for evaluating impacts and assumptions for the analyses are presented under each resource area. Evaluation criteria for most potential impacts were obtained from standard criteria; Federal, state, or local agency guidelines and requirements; and legislative criteria.

Impacts are defined in general terms and are qualified as adverse or beneficial, and as short- or long-term. For the purposes of this SPEA, short-term impacts are generally considered those impacts that would have temporary effects. Long-term impacts are generally considered those impacts that would result in permanent effects. Adverse impacts are defined as:

- negligible, the impact is localized and not measurable or at the lowest level of detection;
- minor, the impact is localized and slight but detectable;
- moderate, the impact is readily apparent and appreciable; or
- major, the impact is severely adverse or highly noticeable and considered to be significant.

Major impacts are considered significant and receive the greatest attention in the decision-making process. The significance of an impact is assessed based on the relationship between context and intensity. Major impacts require application of a mitigation measure to achieve a less than significant impact. Moderate impacts may not meet the criteria to be classified as significant, but the degree of change is noticeable and has the potential to become significant if not effectively mitigated. Minor impacts have little to no effect on the environment and are not easily detected; impacts defined as negligible are the lowest level of detection and generally not measurable. Beneficial impacts provide desirable situations or outcomes.

Impacts and their significance are discussed for each resource, including any best management practices (BMPs) as applicable for reducing potential adverse environmental impacts. Resource areas that are evaluated include: biological resources, cultural resources, water resources, air quality, soils and topography, other protected resources, socioeconomics, and environmental justice. Reasonably foreseeable future actions that could result in increased impacts to these environmental resources in conjunction with the Proposed Action are discussed in **Section 3.10.**

3.3 BIOLOGICAL RESOURCES

3.3.1 Definition of Resource

Biological resources include all 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 threatened or endangered species and critical habitat. Vegetation and wildlife refer to the plant and animal species, both native and introduced, which characterize an area. For this analysis, noxious weeds are not discussed since CREP contracts require conservation plans that include control of such species. Threatened or endangered species are those Federally listed and protected by the ESA. The USFWS designates critical habitat as essential for the recovery of species specifically listed as threatened or endangered, and, like those species, critical habitat is protected under the ESA.

Ecoregions are areas of relatively homogenous soils, vegetation, climate, and geology, each with associated wildlife adapted to that region. South Dakota consists of two Commission for Environmental Cooperation Level I ecoregions, namely the Great Plains and Northwestern Forested Mountains. The Rosebud Sioux Tribe CREP Amendment project area is within the Great Plains ecoregion and consists of mixed-grass prairie lands.

3.3.2 Affected Environment

3.3.2.1 Vegetation

The project area is located on the southern border of South Dakota on semi-arid rolling hills cut by gullies and drainages which flow to the northeast. The majority of land cover is grassland/herbaceous or cultivated crops. Big bluestem (*Andropogon gerardii*), sand bluestem (*Andropogon hallii*), little bluestem, (*Schizachyrium scoparium*), prairie sandreed (*Calamovilfa longifolia*), and needle-and-thread grass (*Hesperostipa comata*) are dominant components of these grassland prairies (Johnson and Larson, 1999). Ecoregion subdivisions (Level IV) within the project area and a brief description of their major characteristics are shown in **Table 3-1**.

Table 3-1. Level IV Ecoregions within the Rosebud Indian Reservation

Ecoregion	Percent of Project Area	Description
Subhumid Pierre Shale Plains	34	A continuous vegetative cover is essential to keep the Subhumid Pierre Shale Plains intact. Tilling the rolling hillsides risks wind and water erosion. Stream channels are deeply incised in its soft, black shale soils and slumping is common along exposed banks.
Keya Paha Tablelands	28	The Keya Paha Tablelands form a perimeter of sandy, level to rolling plains that surround the steeper dune topography of the Nebraska Sand Hills. Ponderosa pines grow in the drainages in the hilly land east of the Pine Ridge escarpment. Millet and corn grow on the level land, but the sandy soil limits non-irrigated agriculture.
River Breaks	14	The River Breaks form broken terraces and uplands that descend to the Missouri River and its major tributaries. The dissected topography, wooded draws, and uncultivated areas provide a haven for wildlife. Riparian gallery forests of cottonwood and green ash persist along major tributaries such as the Moreau and Cheyenne rivers, but they have largely been eliminated along the Missouri River by impoundments.
Ponca Plains	13	The Ponca Plains comprised a transition area between the more densely settled farmland east of the Missouri River and the sparsely populated rangeland west of the river. Though not glaciated, this “west river” ecoregion resembles the adjacent Southern Missouri Coteau and Southern Missouri Coteau Slope in climate, physiography, and land use. Twenty to twenty-two inches of precipitation per year and level to slightly rolling terrain favor intensive rowcrop agriculture.
Southern River Breaks	8	The Southern River Breaks reflect the more temperate conditions of the southern glaciated plains. Here the draws and northern aspects are heavily wooded with deciduous forest, in contrast to the River Breaks north of the Big Bend of the Missouri where the riparian woodland forms narrow stringers of juniper and green ash.
Sand Hills	2	The profile of wavelike dunes on the horizon and a broad expanse of sky characterizes this northern outpost of the Nebraska Sand Hills. Cattle ranching is the predominant land use in the region. The prairie grass associations are specific to the sandy environment, but the fragile vegetative cover is susceptible to blowouts, prompting ranchers to employ rotational grazing strategies to maintain it.

Table 3-1. Level IV Ecoregions within the Rosebud Indian Reservation

Ecoregion	Percent of Project Area	Description
White River Badlands	1	The spectacular White River Badlands formed through the erosion of the soft Brule and Chadron clays and siltstones. The turbulent topography ranges from the sheer, highly dissected "Wall" to pastel-hued toe slopes laden with Oligocene fossils. This seemingly barren landscape is broken by grass-covered, perched "sod tables" that may be grazed or tilled.

Sources: USGS, 2006; Bryce et al., 1996.

3.3.2.2 Wildlife

The Rosebud Sioux Tribe CREP Amendment project area is inhabited by numerous wildlife species. Many of these species are relatively common throughout South Dakota and include bird species such as the red-tailed hawk (*Buteo jamaicensis*), mallard (*Anas platyrhynchus*), blue-winged teal (*Spatula discors*), canvasback (*Aythya valisineria*), ring-necked pheasant (*Phasianus colchicus*), downy woodpecker (*Picoides pubescens*), least flycatcher (*Empidonax minimus*), cliff swallow (*Petrochelidon pyrrhonota*), white breasted nuthatch (*Sitta carolinensis*), eastern bluebird (*Sialia sialis*), warbling vireo (*Vireo gilvus*), and bobolink (*Dolichonyx oryzivorus*) (South Dakota Department of Game, Fish, and Parks [SDGFP], 2014).

Common mammals throughout South Dakota include the white-tailed deer (*Odocoileus virginianus*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), eastern cottontail (*Sylvilagus floridanus*), white-tailed jackrabbit (*Lepus townsendii*), thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*), western harvest mouse (*Reithrodontomys megalotis*), white-footed mouse (*Peromyscus leucopus*), and the meadow vole (*Microtus pennsylvanicus*). Wildlife with habitat requirements more specific to the Rosebud Sioux Tribe CREP Amendment project area include the bison (*Bison bison*), antelope (*Antilocapra americana*), wild turkey (*Meleagris gallopavo*), and badger (*Taxidea taxus*) (SDFGP, 2014).

In early 2020 REDCO, the economic arm of the reservation, secured a lease for nearly 28,000 acres of native grassland for the Wolakota Buffalo Range, and in October 2020 released the first 100 buffalo (Sicangu, 2022). Since the initial release and with numerous additional releases, the herd has surpassed 1,000 animals and is now the largest Native-managed bison herd in North America (Sicangu, 2022).

Common fish species within the project area include channel catfish (*Ictalurus punctatus*), largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), northern pike (*Esox lucius*), yellow perch (*Perca flavescens*), sunfish (*Lepomis macrochirus*), black crappie (*Pomoxis nigromaculatus*), bullhead (*Ameiurus nebulosus*), muskellunge (*Esox masquinongy*), saugeye (*Sander canadensis x vitreus*), and walleye (*Sander vitreus*) (Rosebud Sioux Game, Fish & Parks, 2022).

3.3.2.3 Threatened and Endangered Species and Critical Habitat

Ten Federally threatened, endangered, or candidate species are known or have potential to occur in or near the Rosebud Sioux Tribe CREP Amendment project area (USFWS, 2023). These species are listed in **Table 3-2**. Federally designated critical habitat is present in the project area for the piping plover (*Charadrius melodus*) and pallid sturgeon (*Scaphirhynchus albus*).

Table 3-2. Federally Listed Threatened and Endangered Species Known or Having Potential to Occur In or Near the Rosebud Sioux Tribe CREP Amendment Project Area

Species	Scientific Name	Federal Status	Critical Habitat in the Project Area?
Mammals			
Northern long-eared bat	*Myotis septentrionalis*	Threatened	No
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered	No
Black-footed ferret	*Mustela nigripes*	Endangered	No
Birds			
Piping plover	*Charadrius melodus*	Threatened	**Yes**
Red knot	*Calidris canutus rufa*	Threatened	No
Whooping crane	*Grus americana*	Endangered	No
Fish			
Pallid sturgeon	*Scaphirhynchus albus*	Endangered	**Yes**
Insects			
American burying beetle	*Nicrophorus americanus*	Threatened	No
Monarch butterfly	*Danaus plexippus*	Candidate	No
Plant			
Western prairie fringed orchid	*Platanthera praeclara*	Threatened	No

Source: USFWS, 2023.

State-listed species known to occur in the region include: bald eagle (*Haliaeetus leucocephalus*), whopping crane (*Grus americana*)*, osprey* (*Pandion haliaetus*), peregrine falcon (*Falco peregrinus*), banded killifish (*Fundulus diaphanous*)*,* blacknose shiner (*Notropis heterolepis*)*,* finescale dace (*Chrosomus neogaeus*), longnose sucker (*Casostomus catostomus*), northern pearl dace (*Margariscus nachtriebi*), northern redbelly dace (*Chosomus eos*), pallid sturgeon, sicklefin chub (*Macrhybopsis meeki*), southern redbelly dace (*Chrosomus eruthogaster*), and sturgeon chub (*Macrhybopsis gelida*) (SDGFP, 2014).

State species of greatest conservation need known to occur in the region include: American white pelican (*Pelecanus erythrorhynchos*), black tern (*Chlidonias niger*), chestnut-collared longspur (*Calcarius ornatus*), ferruginous hawk (*Buteo regalis*), greater prairie-chicken (*Tempanuchus cupido*), burrowing owl (*Athene cunicularia*), Baird's sparrow (*Ammodramus bairdii*), lark bunting (*Calamospiza melanocorys*), long-billed curlew (*Numenius americanus*), marbled godwit (*Limosa fedoa*), northern goshawk (*Accipter gentilis*), Sprague's pipit (*Anthus spragueii*), trumpeter swan (*Cygnus buccinator*), willet (*Tringa semipalmata*), Wilson's phalarope (*Phalaropus tricolor*), northern river otter (*Lontra canadensis*), silver-haired bat (*Lasioncteris noctivagans*), lesser earless lizard (*Holbookia maculata*), many-lined skink (*Plestiodon multivirgatus*), western box turtle (*Terrapene ornata*), Iowa skipper (*Atrytone arogos iowa*)*,* regal fritillary (*Speyeria idalia*), blackside darter (*Percina maculata*), hornyhead chub (*Nocomis biguttatus*), lake chub (*Couesius plumbeus*), logperch (*Percina caprodes*), mountain sucker (*Catostomus platyrhynchus*), carmine shiner (*Notropis percobromus*), and central mudminnow (*Umbra limi*) (SDGFP, 2014).

3.3.3 Environmental Consequences Evaluation Criteria

Impacts to biological resources would be considered significant if implementation of the Proposed Action 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. "Take" is defined as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

3.3.4 Environmental Consequences – Proposed Action Alternative

The assessment of impacts in the following sections is general in nature because the location, size, and number of tracts that would be enrolled in CREP is currently unknown. This information would be determined by individual contracts. Once eligible lands are identified, a site-specific EE would be completed prior to executing a contract. The EE is completed by NRCS or an approved TSP during the conservation planning process and approved by FSA. The site-specific evaluation process includes collecting and documenting the data, consultation, and permitting needed for FSA to ensure compliance with the ESA and other related laws, regulations, and EOs. It includes identifying the presence of migratory birds, invasive species, and endangered or threatened species. FSA reviews the EE for compliance with a myriad of environmental laws and mandates and completes any required consultations needed for site-specific actions. Upon completion of consultations, FSA will sign the EE as complete.

3.3.4.1 Vegetation

Implementing the Proposed Action is expected to result in beneficial long-term impacts to vegetation. Implementation of CP88, Permanent Grasses and Legumes, would maintain existing vegetative cover of either introduced or native grasses and legumes for 10 to 15 years. Components of CP88 may include interior fencing, access control, water facilities, fuel breaks, trails, and prescribed burning. These practices would result in a reduction in soil erosion and enhancement of vegetation quality and quantity on the enrolled lands.

3.3.4.2 Wildlife

Impacts of the Proposed Action on wildlife would be beneficial and long term. Although enhanced wildlife habitat is not a goal of the CREP Agreement, wildlife would generally benefit from improved grassland productivity and reduced erosion. Grasslands enrolled in Federal long-term set-aside programs, such as the CRP in the United States, provide important nesting habitat for grassland birds (Allen and Vandever, 2012; Shaffer and DeLong, 2019). Although CRP grasslands are floristically less diverse than native prairie, several declining grassland bird species occur in CRP fields during the breeding season, such as dickcissel (*Spiza americana*), lark bunting (*Calamospiza melanocorys*), Baird's sparrow, grasshopper sparrow (*Ammodramus savannarum*), clay colored sparrow (*Spizella pallida*), and bobolink (Johnson and Schwartz, 1993; Johnson and Igl, 1995; Herkert, 1998). More than 90 species have been reported using CRP fields during the breeding season and at least 42 species have nested in these habitats (Ryan et al., 1998). Approved ongoing management practices such as installation of fencing or livestock water facilities, and prescribed burning would be performed outside PNS dates to minimize impacts to birds that use CRP lands.

Studies clearly show that the CRP has provided benefits for duck production in the Prairie Pothole Region (Reynolds et al., 2007). Since 1992, net increases of about 2 million additional ducks per year were produced in the Prairie Pothole Region of North Dakota, South Dakota, and northeastern Montana. This represents an estimated 30 percent increase in duck population compared to the same area without CRP cover on the landscape. Increased duck nest success was documented in all major habitats throughout the Prairie Pothole Region between 1992 and 2004.

Nielson (et.al. 2006) estimated a 22 percent increase in ring-necked pheasant counts along a Breeding Bird Survey route associated with every increase of 788 acres of CRP herbaceous vegetation within a 1,000-meter buffer around the survey route. Neilson also reported that other grassland species would be expected to have increases in breeding populations due to the presence of CRP fields in their breeding range, including sharp-tailed grouse (*Tympanuchus phasianellus*), sedge wren (*Cistothorus platensis*), and common yellowthroat (*Geothlypis trichas*).

Like many wildlife species across South Dakota, deer populations responded significantly to the presence of large undisturbed habitat blocks created across much of the landscape (SDGFP, 2017). Studies pre-dating CRP emphasized the importance of woodlands, wetlands, and riparian areas as key fawning areas of white-tailed deer in east-central South Dakota, and agricultural fields as key late-summer foraging and security areas (Sparrowe and Springer, 1970). CRP lands also provide important bedding habitat to fawning does (Grovenburg et al., 2012). In the Prairie Pothole Region of eastern South Dakota, white-tailed deer use CRP grass cover in significantly higher proportions than other available cover types (Robling, 2011).

The objectives of the Rosebud Sioux Tribe CREP Agreement to maintain, improve, and protect grassland productivity and reduce erosion in riparian areas, would benefit all wildlife, including some state-listed species that rely on grasslands and clean water, such as the bald eagle, osprey, peregrine falcon, and several fish species. Species of Greatest Conservation Need that prefer grazed grasslands include the burrowing owl, chestnut-collared longspur, Baird's sparrow, and Sprague's pipit.

3.3.4.3 Threatened and Endangered Species and Critical Habitat

Impacts to threatened or endangered species would be beneficial and long term. Prior to enrollment in the program, site-specific EEs would identify the potential for protected species to be present and any required conditions for implementing CP88 to ensure that the Proposed Action would be covered under the USDA's 2016 Programmatic Biological Assessment (BA) (see **Appendix C**). One species, the tricolored bat (*Perimyotis subflavus*), was only recently listed as a proposed endangered species and thus not included in the 2016 BA. Similar to vegetation and wildlife, some threatened and endangered species (both Federal and state listed) are expected to experience long-term benefits from the maintenance of grassland productivity and reduction in soil erosion. The black-footed ferret (*Mustela nigripes*) prefers short-grass or mixed-grass prairie habitat, and one of the reasons for its decline was conversion of native prairie to cropland. This species has been reintroduced at numerous sites on Sioux reservations throughout South Dakota, in part to control black-tailed prairie dogs (*Cynomys ludovicianus*) in areas used for grazing. The monarch butterfly (*Danaus plexippus*) uses grasslands with milkweed (*Asclepias spp.*). The American burying beetle (*Nicrophorus americanus*) is found in bluestem mixed prairie and disturbed grasslands and protection of native vegetation and established perennial grassland habitats is consistent with the recovery plan (USDA, 2016). In 2019, the USFWS reclassified the American burying beetle from endangered to threatened and concluded that:

> "Incidental take stemming from normal livestock ranching and grazing activities is not expected to have an appreciable negative impact on the species, and retaining land uses associated with ranching or grazing (rather than converting the land to row crops) provides potential habitat for the species." (USFWS, 2019)

It is unlikely that there would be any long-term adverse effects on threatened and endangered species from the Proposed Action since none of these species benefits from the conversion of grassland habitat to other agricultural uses, such as cropland, or development uses.

Approved ongoing management practices such as access control, water facilities, fuel breaks, prescribed burning, and trails are not expected to adversely affect any threatened or endangered species with the implementation of Conditions for Implementing Conservation Practices (CICPs). These conditions would be implemented to minimize impacts to the northern long-eared bat (*Myotis septentrionalis*), black-footed ferret, western prairie fringed orchid, American burying beetle, and critical habitat for both the pallid sturgeon and piping plover. If necessary, due to presence of individuals or appropriate habitat, CICPs would also be implemented for red knot and whooping crane (USDA, 2016). While not listed in the BA, the tricolored bat shares similar habitat requirements as that of the northern long-eared bat. Activities associated with the Proposed Action, when applied in concert with implementation of the CICPs listed for the northern long-eared bat, would likely result in a 'not likely to adversely affect' determination for the tricolored bat, should it become listed in the future.

3.3.5 Environmental Consequences – No Action Alternative

3.3.5.1 Vegetation

Under the No Action Alternative, the proposed amendment to the CREP Agreement would not be implemented. Lands that would have been eligible for enrollment would remain unprotected. The potential conversion of grassland to another type of agricultural production or development would reduce vegetative diversity, increasing susceptibility to invasion by exotic species.

3.3.5.2 Wildlife

Under the No Action Alternative, the amendment to the CREP Agreement would not be implemented. Eligible lands would not be enrolled in the CREP. The benefits of protection and improvement of grassland productivity, reduction in soil erosion, and enhancement of wildlife habitat would not be realized.

3.3.5.3 Threatened and Endangered Species and Critical Habitat

Under the No Action Alternative, the proposed amendment to the Rosebud Sioux CREP Agreement would not be implemented. Lands that would have been eligible for enrollment would remain vulnerable to conversion to other uses. Conversion to another use would adversely affect threatened, endangered, and sensitive species currently inhabiting these grasslands by reducing or degrading available habitat.

3.4 CULTURAL RESOURCES

3.4.1 Definition of Resource

Cultural resources are any prehistoric or historic district, site, building, structure, or object considered important to a culture or community for scientific, traditional, religious, or other purposes. These resources are protected and identified under several Federal laws and EOs.

Cultural Resources include the following subcategories:

- Archaeological (i.e., prehistoric or historic sites where human activity has left physical evidence of that activity, but no structures remain standing);
- Architectural (i.e., buildings or other structures or groups of structures, or designed landscapes that are of historic or aesthetic significance); and
- Traditional Cultural Properties (TCPs) (resources of traditional, religious, or cultural significance to Native American Tribes and other communities).

Significant cultural resources are called historic properties and are listed on the National Register of Historic Places (NRHP) or have been determined to be eligible for listing. To be eligible for the NRHP, historic properties must be 50 years old and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. They must possess sufficient integrity of location, design, setting, materials, workmanship, feeling, and association to convey their historical significance and meet at least one of four criteria (NPS, 1997):

- Associated with events that have made a significant contribution to the broad patterns of our history (Criterion A);
- Associated with the lives of persons significant in our past (Criterion B);
- Embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (Criterion C); and/or
- Have yielded or be likely to yield information important in prehistory or history (Criterion D).

Properties that are less than 50 years old can be considered eligible for the NRHP under Criterion Consideration G if they possess exceptional historical importance. Those properties must also retain historic integrity and meet at least one of the four NRHP Criteria for Evaluation (Criterion A, B, C, or D). The term “Historic Property” refers to National Historic Landmarks, NRHP-listed, and NRHP-eligible cultural resources. If cultural resources have not been evaluated and determined eligible, it is assumed they are eligible (until proven otherwise) and treated as such.

Federal laws protecting cultural resources include the Archaeological and Historic Preservation Act of 1960 as amended, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, the Native American Graves Protection and Repatriation Act of 1990, and the NHPA, as amended through 2016, and associated regulations (36 CFR Part 800). The NHPA requires Federal agencies to consider effects of Federal undertakings on historic properties prior to making a decision or

taking an action and integrate historic preservation values into their decision-making process. Federal agencies fulfill this requirement by completing the Section 106 consultation process, as set forth in 36 CFR Part 800. Section 106 of the NHPA also requires agencies to consult with Federally recognized American Indian Tribes with a vested interest in the area where the project is occurring.

Section 106 of the NHPA requires all Federal agencies to seek to avoid, minimize, or mitigate adverse effects on historic properties (36 CFR § 800.1[a]). For cultural resource analysis, APE is defined as the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist," (36 CFR § 800.16[d]) and thereby diminish their historic integrity. The APE defined to analyze direct and indirect effects for this SPEA covers the entirety of the Rosebud Indian Reservation, encompassing approximately 890,240 acres covering the entirety of Todd County, and surrounding counties including Gregory, Lyman, Mellette, and Tripp Counties in south-central South Dakota (see **Figure 1-1**).

3.4.2 Affected Environment

South Dakota exhibits extreme physiographic diversity, encompassing such landscapes as the Black Hills and Badlands in the west; the Missouri River Trench center-state, the Prairie Pothole Region in the northeast; and the James and Big Sioux River valleys in the east. As such, prehistoric human groups developed special patterns of adaptation to survive in each of these unique environments. South Dakota was home to diverse lifeways covering a time span of some 14,000 years. The state has been divided into 24 archaeological regions to help capture these localized differences in environment and lifeway adaptations. The APE for the CREP analyzed in this SPEA includes portions of the Big Bend, Fort Randall, White River Badlands, Lower White, and Sand Hills archaeological regions (Sundstrom, 2018).

There are approximately 19,000 archaeological sites recorded in South Dakota. They represent a wide range of purpose and function including hunting and animal processing, temporary residence, tool-stone gathering and working, mounds, earth lodge villages, homesteading, stock-raising, eagle trapping, and religious activities. Pre-European contact sites are typically categorized as artifact scatters, hearths, villages, fortifications, burials, bison or antelope kill sites, eagle-trapping pits, tool-stone procurement and tool manufacture, rock cairns, rock shelters, stone alignments, rock art, stone circles, vision quest locales, and timber lodges. Contact-era and recent sites are most commonly categorized as farmsteads, roads, railroads, foundations, depressions, alignments, burials, cairns, cabins, trading posts, school foundations, town sites, dams, dumps, earthworks, fence-lines, forts, mines, quarries, industrial sites, monuments, and wells or cisterns (Sundstrom, 2018).

The distribution of archaeological sites is geographically patterned. For example, stone circles (also known as tipi rings) and artifact scatters that represent campsites and food processing areas occur in valleys, on toe slopes, and on mesa tops. Bone beds from game drives occur in deep soils of draws, alluvial fans, and toe slopes. Vision quest markers, cairns, and eagle-trapping pits occur on the rimrocks, while rock art is common in the overhangs below the rim and on other more resistant sandstone outcroppings. Localities with deeper soils, including alluvial fans, valley floodplains, mesa tops, and rock overhangs often contain buried, deeply stratified sites that have the greatest scientific potential for both archaeological studies and research on past environmental conditions.

The APE is part of the Great Sioux Reservation, established by a treaty signed at Fort Laramie in 1868. This reservation was composed of several different communities including the current Rosebud Indian Reservation. It generally encompassed the western half of present-day South Dakota, including the Black Hills, land sacred to the Sioux Nation. Once gold was found in the Black Hills; however, the treaty proved inconvenient. The US government confiscated the Black Hills in 1877 and Euro-American prospectors and settlers flooded into western South Dakota. After the gold rush, most of the area outside the Black Hills remained open range through the end of the nineteenth century (Clark, n.d.; Sundstrom, 2018).

Of significance to this area is the Wounded Knee Massacre. In 1890, some among the Sioux Tribes began following the Ghost Dance religion, a complex blend of traditional beliefs with influences from evangelical Christianity. The followers, including members of Tribes from across the American Southwest, West, and Midwest, reacting to treatment and policies of the US government, believed that by performing rituals, they could affect the removal of white settlers, reunite with their deceased relatives, return to their former ways,

and generally regain some agency over their lives (NPS, 1992; Sundstrom, 2018; Utley 1993; Warren, 2021). The Ghost Dance ended in tragedy for the Sioux at Wounded Knee (Sundstrom, 2018).

The US government became militant in their need to break up these dances seen as “disruptive” and “threatening” to US interests across huge portions of the country. In November 1890, President Harrison sent the US Army to the Sioux reservation lands as a show of military strength and to support local officials and settlers. This action was part of a larger “Ghost Dance War” the largest military campaign undertaken since the Civil War. In reality, the army descended upon some of the most remote and impoverished communities in the country (Warren, 2021).

In December of 1890, a small band of Ghost Dancers surrendered to Colonel James Forsyth's Seventh Cavalry at Wounded Knee Creek. The next morning soldiers descended upon the nearby Sioux community to disarm them. As the result of an accidental firearm discharge, fighting broke out, and by the time it stopped, nearly 300 Sioux Indians were killed, many of them women and children. The Battle of Wounded Knee was perceived as the last Indian War and was effectively the end of armed resistance to Euro-American expansion (NPS, 1992; Sundstrom, 2018; Warren, 2021).

There are currently more than 1,300 historic properties listed on the NRHP in South Dakota, including the Wounded Knee National Historic Landmark. Though thousands of archaeological sites have been recorded in the state, and some portion of this number certainly retain integrity sufficient to convey significance for NRHP eligibility, most of the properties formally listed on the register are architectural resources. There are four historic properties listed on the NRHP within Todd County: one archaeological site (Spotted Tail Gravesite), one historic district (St. Francis Mission), and two architectural resources (He Dog Consolidated School and Rosebud Hotel). In Mellette County, there are two NRHP-listed architectural resources (South Dakota Department of Transportation [SDDOT] Bridge No. 48-244-204 and the Stamford Bridge). Tripp County has five architectural resources: (E.G. Barnum House; the Manthey Barn; SDDOT Bridge No. 61-220-512; Tripp County Veteran’s Memorial; and Wewela Hall). Gregory County has 12 NRHP-listed properties, all of which are architectural resources: (Dallas Carnegie Library; Fort Randall; Gregory Buttes Stone Steps; Gregory County Courthouse; Gregory County State Bank; Gregory National Bank; Herrick Elevator; Herrick Public School; Pocahontas Schoolhouse; St. Augustine Church; St. John’s Catholic Church; and Tackett Underwood Building). Lyman County has seven archaeological sites listed on the NRHP: (Burnt Prairie Site; Dinehart Village Archaeological Site; Fort Lookout IV; Iron Nation Gravesite; Jiggs Thompson Site; King Archaeological Site; Langdeau Site) and one architectural resource (Edgar Vernon House). This number is misleadingly low and skewed towards architectural resources, but as noted at the state level, known distribution patterns suggest there is a high potential for archaeological sites to occur within the APE (NPS, n.d.; Sundstrom, 2018).

In addition to archaeological sites and architectural resources, many places sacred to Native Americans exist in South Dakota. Some of these sites lack any obvious signs of human use and may include hills, springs, caves, large glacial erratics, and other natural landscape features that Native American groups currently hold or previously held sacred to their cultural traditions, as well as some culturally modified places, such as those with petroglyphs and pictographs. Some of these sites would also be considered TCPs for purposes of formal evaluation of sites for inclusion in the NRHP under the NHPA. At present, TCPs are not recorded as archaeological sites in South Dakota unless they contain artifacts or features (Sundstrom, 2018).

The following Federally recognized Tribes were consulted in development of this CREP SPEA:

- Apache Tribe of Oklahoma
- Cheyenne and Arapaho Tribes, Oklahoma
- Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota
- Crow Creek Sioux Tribe of the Crow Creek Reservation, South Dakota
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota
- Oglala Sioux Tribe
- Rosebud Sioux Tribe of the Rosebud Indian Reservation, South Dakota
- Santee Sioux Nation, Nebraska
- Standing Rock Sioux Tribe of North and South Dakota

No TCPs or sites of traditional, cultural, or religious significance have been identified to date as a result of this consultation.

3.4.3 Environmental Consequences Evaluation Criteria

Adverse effects on cultural resources might include physically altering, damaging, or destroying all or part of a resource or altering characteristics of the resource that make it eligible for listing in the NRHP. Those effects can include introducing visual or audible elements that are out of character with the property or its setting; neglecting the resource to the extent that it deteriorates or is destroyed; or the sale, transfer, or lease of the property out of agency ownership (or control) without adequate enforceable restrictions or conditions to ensure preservation of the property's historic significance. For this SPEA, an effect is considered adverse if it alters the integrity of an NRHP-listed or eligible resource or if it has the potential to adversely affect TCPs and the practices associated with the property.

3.4.4 Environmental Consequences – Proposed Action Alternative

The intent of this SPEA is to analyze the potential environmental impacts from implementing the amendment to the Rosebud Sioux Tribe CREP within the five counties geographical area (though only 900,000 acres can be enrolled at one time). Given the purpose, need, scope and scale of the Proposed Action, a meaningful inventory of historic properties and determination of effects cannot be provided. There is a high potential, however, for recorded and unidentified significant archaeological sites to exist within the CREP lands, especially those near water sources (rivers and streams, springs, marshes), areas of known habitation or other cultural activities, certain topographic or geologic features, and prehistoric and historic trails. There is also the potential for significant architectural resources and TCPs.

Should the Proposed Action Alternative be implemented, up to 900,000 acres of eligible land would be enrolled in CP88 to protect existing grasslands from conversion to other uses. The Proposed Action would mainly include maintenance of grassland and rotational grazing. However, some infrequent actions like digging to bury water pipelines, could disturb previously undisturbed areas and may result in impacts to known or unknown historic properties and TCPs. Evaluation of cultural resources impacts for specific lands to be enrolled in the CREP, including the identification of previously undisturbed land, is performed through site-specific agreements. If specific areas of concern are identified, per Section 106 of the NHPA, FSA will review the areas of concern in consultation with the South Dakota State Historic Preservation Office (SHPO), Tribal Historic Preservation Officer, Tribes, and participating state and Federal agencies during the planning and implementation phases. This includes definition of specific APEs, development of historic properties inventories, determination of effects to historic properties, and plans for mitigation of adverse effects (as appropriate). This work would also require a Class I literature search to determine if previous cultural resource inventories have been conducted on these properties and if any further investigations are warranted.

To summarize, the cultural resources analysis in this SPEA concludes that the Proposed Action Alternative may have direct, indirect, and cumulative effects on cultural resources. Site-specific agreements would evaluate the potential for an individual CRP contract to impact cultural resources. The following would apply to individual CRP contracts:

- All future work initiated under the CREP and associated contracts would meet required Federal and state historic preservation statutes, regulations, and guidelines. Any permitting or ground-disturbing actions would be preceded by consultation with South Dakota SHPO, Tribal Historic Preservation Officer, and Tribal representatives and followed by archival and field investigations as warranted.
- Potential indirect, direct, and cumulative adverse effects on significant cultural resources would be determined and mitigation plans developed for the protection of historic properties, the treatment of TCPs, and unanticipated discoveries.
- Some locations would carry a higher potential for cultural and paleontological resources. Installation of CP88 may require participation by, and consultation with, multiple public and private agencies.

3.4.5 Environmental Consequences – No Action Alternative

Under the No Action Alternative, the proposed amendment to the CREP would not be implemented and there would be no protection from conversion of the existing grasslands on the reservation. Under the No Action Alternative, there would be no adverse effect to historic properties as any significant cultural resources would retain their current condition.

3.5 WATER RESOURCES

3.5.1 Definition of Resource

Water resources are natural and man-made sources of water that are available for use by, and for the benefit of, humans and the environment. Water resources relevant to the Proposed Action include surface water, wetlands, floodplains, and groundwater. Evaluation of water resources examines the quantity and quality of the resource and its demand for various purposes and ensures compliance with the CWA of 1972 (33 U.S.C. § 1251 et seq.). Each sub-section below first defines the resource and then describe the existing conditions and potential environmental consequences for that resource.

3.5.2 Affected Environment

3.5.2.1 Surface Water and Wetlands

Surface water includes natural, modified, and man-made water confinement and conveyance features above groundwater that may or may not have a defined channel and discernable water flow. These features are generally classified as streams, springs, wetlands, natural and artificial impoundments (e.g., ponds, lakes), and constructed drainage canals and ditches.

The CWA regulates discharges of pollutants into surface waters of the United States. Jurisdictional waters, including surface water resources as defined in 33 CFR § 328.3, are regulated under Section 401 and Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Man-made features not directly associated with a natural drainage, such as upland stock ponds and irrigation canals constructed in uplands, are generally not considered jurisdictional waters. The CWA establishes Federal limits, through the National Pollutant Discharge Elimination System permit process, for regulating point (end of pipe) and nonpoint (e.g., stormwater) discharges of pollutants into the waters of the United States and quality standards for surface waters. The term “waters of the United States” has a broad meaning under the CWA and incorporates deep water aquatic habitats and special aquatic habitats (including wetlands).

There are portions of three major watersheds in the Rosebud Sioux Tribe CREP Amendment project area: the Little White River watershed, the Keya Paha River watershed, and the Middle Niobrara watershed. The major river within the project area is the White River, which flows along the northern portion. There are numerous other lakes and creeks located throughout the project area. Surface water features within the project area are shown on **Figure 3-1**.

According to the 2022 South Dakota Integrated Report for Surface Water Quality Assessment, several portions of the White River, Little White River and several tributaries to the Little White River are impaired for *E. coli* bacteria (SDDANR, 2022). The White River basin receives the majority of the runoff and drainage from the western Badlands. The exposed Badlands are a major natural source of both suspended and dissolved solids to the river. Severe erosion and leaching of soils occur in the Badlands and throughout the entire length of the basin. The Keya Paha River is not supporting its designated uses due to total suspended solids and *E. coli*. Land use along the Keya Paha River is primarily agriculture. Livestock grazing in the riparian or shoreline areas has been identified as the primary source of bacteria. There are no point source discharges to the Keya Paha River. A Total Maximum Daily Load has been approved for the Keya Paha River to address the contaminants (SDDANR, 2022).

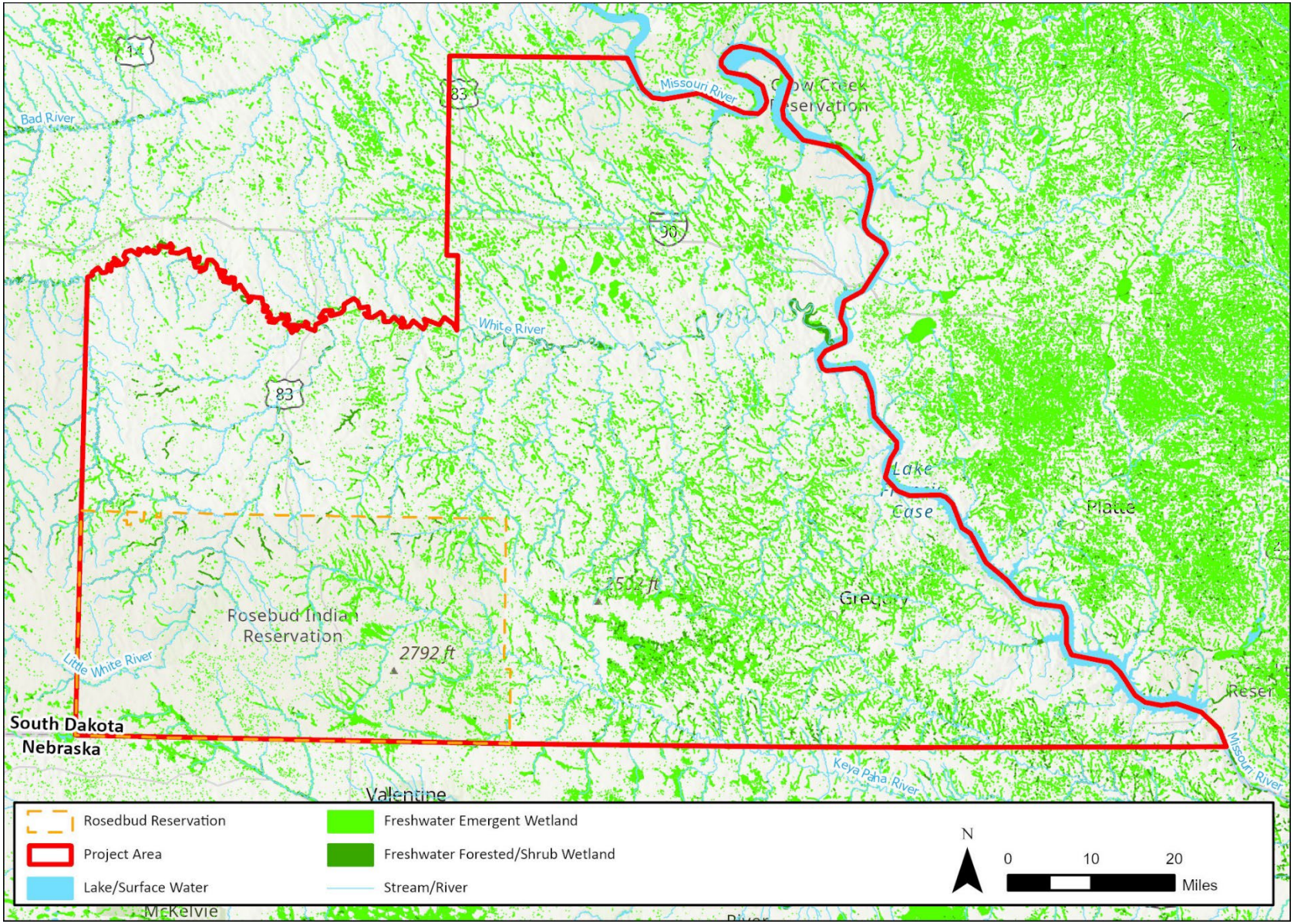

Figure 3-1. Surface Water on the Rosebud Sioux Tribe CREP Project Area

Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat detention, and erosion protection. Wetlands are protected as a subset of the "the waters of the United States" under Section 404 of the CWA. Section 404(b)(1) of the CWA directs the USEPA to develop guidelines for the placement of dredged or fill material (33 U.S.C. § 1341[b]). These guidelines developed by USEPA are known as the "404(b)(1) Guidelines" and are located at 40 CFR Part 230. The stated purpose of the guidelines is to "restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material" (40 CFR § 230.1[a]). Federal protection of wetlands is also promulgated under EO 11990, *Protection of Wetlands*, the purpose of which is to reduce adverse impacts associated with the destruction or modification of wetlands. This order directs Federal agencies to provide leadership in minimizing the destruction, loss, or degradation of wetlands. The US Army Corp of Engineers administers Section 404 of the CWA and in South Dakota has primary jurisdictional authority to regulate wetlands and waters of the United States.

In 2009, South Dakota had an estimated 1,870,790 acres of shallow water wetlands. The total number of wetlands in South Dakota declined by 2.8 percent from 1997 to 2009 (Dahl, 2014). Small temporary wetlands comprised the primary type of emergent wetland loss. South Dakota did exhibit gains in all other emergent wetland classes, especially larger seasonal and semipermanent classes between 1997 and 2009. The wetland acreage estimates provided by Dahl (2014) represent the most recent documentation of wetland extent available for South Dakota. USFWS National Wetland Inventory data indicates that 183,908 acres of wetlands are present within the reservation (NWI, 2023).

3.5.2.2 Floodplains

Floodplains are areas of low, level ground present along rivers, stream channels, or coastal waters that are subject to periodic or infrequent inundation due to rain or melting snow. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, nutrient cycling, water quality maintenance, and provision of habitat for a diversity of plants and animals. Flood potential is evaluated by the Federal Emergency Management Agency, which defines the 100-year floodplain as an area within which there is a 1 percent chance of inundation by a flood event in a given year, or a flood event in the area once every 100 years. The risk of flooding is influenced by local topography, the frequency of precipitation events, the size of the watershed above the floodplain, and upstream development. EO 11988, *Floodplain Management* requires that Federal agencies: "…take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains..."

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. Additionally, all earthmoving, grading, and construction in a Special Flood Hazard Area would require a Floodplain Development Permit to ensure compliance with the National Flood Insurance Program regulations.

A search of the National Oceanic and Atmospheric Administration's (NOAA) storm events database indicates that there have been 106 floods/flash flood events in Gregory, Lyman, Mellette, Todd, and Tripp Counties since 1996, 28 of which occurred in 2019, a particularly bad year for flooding in South Dakota (NOAA, 2023).

3.5.2.3 Groundwater

Groundwater exists in the saturated zone below the ground surface that collects and flows through permeable zones in aquifers. Groundwater is an essential resource that discharges to surface water supplying baseflow and is used for drinking, irrigation, and industrial purposes. Groundwater typically can be described in terms of depth from the surface, aquifer or well capacity, water quality, recharge rate, and surrounding geologic formations.

Groundwater quality and quantity are regulated under several Federal and state programs. Groundwater resources are regulated at the Federal level by the USEPA under the Safe Drinking Water Act (42 U.S.C.

§ 300f et seq.). The Federal Underground Injection Control regulations, authorized under the Safe Drinking Water Act, require a permit for the discharge or disposal of fluids into a well. The South Dakota Department of Agriculture and Natural Resources (SDDANR) Drinking Water Program reviews projects for the potential to impact public drinking water sources (groundwater wells and surface water intakes) and sets standards for groundwater to protect human health.

In South Dakota, approximately 52 percent of the public drinking water systems rely solely on groundwater and approximately 74 percent of South Dakota's citizens use groundwater as their source of drinking water (Iles, 2008). South Dakota does not suffer from a lack of groundwater as there are many aquifers, or subsurface water-bearing units, in the state. However, the water-producing units may be deep (very expensive drilling and well installation), may have undesirable water quality, or may not yield the desired quantity of water where it is needed (Iles, 2008).

The principal aquifer within the project area is the High Plains aquifer. Shallow aquifers within the project area include the alluvial Ogallala, Arikaree, and White River aquifers. The water quality of the alluvial aquifers is dependent on the underlying deposit. Generally, the water has low concentrations of dissolved solids, is fresh, and is soft to moderately hard where underlain by the Ogallala and Arikaree Formations. The water has moderate concentrations of dissolved solids, is slightly saline, and is hard where underlain by the White River Group (Carter, 1998). On the Rosebud Indian Reservation, nitrate contamination in the Ogallala aquifer and arsenic contamination in the Arikaree aquifer have both been documented (Carter, 1998).

3.5.3 Environmental Consequences Evaluation Criteria

Evaluation criteria for potential impacts on water resources are based on water availability, quality, and use; existence of floodplains; and associated regulations. Adverse impacts to water resources would occur if the proposed or alternative actions:

- Reduce water availability or supply to existing users;
- Overdraft groundwater basins;
- Adversely affect groundwater recharge;
- Exceed safe annual yield of water supply sources;
- Adversely affect water quality;
- Threaten or damage unique hydrologic characteristics;
- Endanger public health by creating or worsening health hazard conditions; or
- Violate established laws or regulations adopted to protect water resources.

3.5.4 Environmental Consequences – Proposed Action Alternative

Implementation of the proposed CREP Agreement would have long-term beneficial impacts on surface water and wetlands. Waterways would be improved from decreased soil erosion in general from rotational grazing practices. Cover enhancement along riparian areas would stabilize streambanks, reduce erosion, and intercept pollutants carried by runoff. Both cover enhancement along riparian areas and designated water facilities can help keep animal wastes from contaminating waterways and wetlands and improve *E. coli* contamination problems documented in **Section 3.5.2.1**.

Installation and maintenance of CP88 may involve the clearing of vegetation for fire breaks, prescribed burning, and some soil disturbance from activities such as fence installation or installation of pipelines or other infrastructure for water conveyance. These activities may result in increased levels of sediment runoff, resulting in short-term negligible adverse impacts to surface water quality and wetlands. The use of filter fencing or similar BMPs to control erosion and invasive plant species 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.

Herbicides could be used for the control of noxious weeds or other undesirable plants. All herbicides used would be registered with the USEPA and applied according to label requirements. CP88 implementation

requiring the use of herbicides, fertilizers, lime, or any other such applications, as well as the timing of implementation, must be pre-approved through a Conservation Plan developed with the NRCS. There would be short-term negligible adverse impacts to surface water from potential runoff of these chemicals. Application in accordance with label requirements would minimize pollutants in runoff.

Impacts to floodplains are expected to be long-term and beneficial as cover enhancement along riparian areas can help stabilize the floodplain. Additionally, rotational grazing results in reduced soil compaction and increased infiltration rates which ultimately reduce stormwater runoff. Similarly, impacts to groundwater would be long-term and beneficial because rotational grazing can lead to deeper forage roots that can absorb nutrients from greater depths (Undersander et al., 2002). This decreases the quantity of contaminants entering groundwater in an area where nitrate contamination of the groundwater has been documented.

3.5.5 Environmental Consequences – No Action Alternative

Under the No Action Alternative, the CREP would not be implemented, and current agricultural practices would continue. There would be no impacts to water resources from implementation of the No Action Alternative. The beneficial impacts to surface water, wetlands, floodplains, and groundwater from installing CP88 would not be realized.

3.6 AIR QUALITY

3.6.1 Definition of Resource

Air quality is affected by air pollutants emitted by numerous sources, including natural and man-made sources. Weather conditions and topography of the area further influence the amounts and types of pollutants that are present in the ambient air.

To manage pollutant emission levels in ambient air, the USEPA was mandated under the Federal Clean Air Act to set standards for select pollutants that are known to affect human health and the environment. These standards, known as National Ambient Air Quality Standards (NAAQS), are currently established for six criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide, respirable particulate matter (including particulates equal to or less than 10 microns in diameter [PM_{10}] and particulates equal to or less than 2.5 microns in diameter [$PM_{2.5}$]), and lead.

To evaluate compliance with NAAQS, USEPA has divided the country into geographical regions with regulatory areas that are designated as attainment or nonattainment areas for each of the criteria pollutants depending on whether it meets or exceeds the NAAQS. Attainment areas that were reclassified from a previous nonattainment status to attainment are called maintenance areas. For areas designated as nonattainment or maintenance for one or more criteria pollutants, the state must prepare a State Implementation Plan (SIP) or a Maintenance Plan to show how the area will meet or maintain the NAAQS within a specified timeframe. Tribes can develop Tribal Implementation Plans, similar to SIPs, to outline how they will achieve and maintain compliance with the NAAQS set by USEPA.

Federal actions in NAAQS nonattainment and maintenance areas are also required to comply with USEPA's General Conformity Rule (40 CFR 93). Federal actions are evaluated to determine if project emissions are below *de minimis* levels for each of the pollutants as specified in 40 CFR § 93.153. If project emissions are below *de minimis* levels (or are minimal), no further evaluation is required. If project emissions exceed *de minimis* levels for any of the pollutants, detailed analysis is necessary.

Some areas of the state have been designated as Class I Federal wilderness areas to address the problem of visibility (40 CFR § 81.410, § 81.425, and § 81.434). A Class I Area includes national parks larger than 6,000 acres, national wilderness areas and national memorial parks larger than 5,000 acres, and international parks. To maintain good air quality in these pristine areas in the country, the SIPs must also address visibility as an air quality issue.

Greenhouse gases (GHGs) are gases, occurring from natural processes and human activities, that trap heat in the atmosphere. The accumulation of GHGs in the atmosphere helps regulate the earth's temperature and are believed to contribute to global climate change. The USEPA regulates GHG emissions

via permitting and reporting requirements that are applicable mainly to large stationary sources of emissions. Agricultural activities contribute directly to emissions of GHGs including carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These emissions result through a variety of activities such as the use of diesel-fueled farm equipment, enteric fermentation, agricultural soil and manure management, crop and field burning.

The air quality analysis for this SPEA covers the Rosebud Sioux Tribe CREP Amendment project area which includes Rosebud Indian Reservation and Rosebud Sioux Tribal lands in Gregory, Lyman, Mellette, Tripp, and Todd Counties in South Dakota. The long-term air quality impacts from CP88 implementation are considered in this section. Also considered are effects of short-term activities, such as site preparation and construction, which would lead to increases in emissions. The following discussion provides a general picture of air quality in the CREP project area where the proposed project would be located.

3.6.2 Affected Environment

Rosebud Indian Reservation and the proposed project area are in south-central South Dakota and border the northern boundary of Nebraska. The Rosebud Indian Reservation lies in the Great Plains region of the United States, just north of Nebraska Sandhills, which consists of large areas of Ponderosa Pine forest amidst its grasslands. Due to its topography, significant weather extremes impact this area including winter storms, extreme heat and cold, severe thunderstorms, drought, and flood producing rainfall.

In the town of Rosebud, the summers are warm and mostly clear, and the winters are freezing, snowy, windy, and partly cloudy. Over the course of the year, the temperature typically varies from 13 degrees Fahrenheit (°F) to 88 °F and is rarely below -6 °F or above 99 °F. The hot season is typically from June to September, with an average daily high temperature above 77°F. The hottest month of the year is July in Rosebud, with an average high of 88°F and low of 62°F. The cold season is generally from November to March, with an average daily high temperature below 44°F. The coldest month of the year in Rosebud is January, with an average low of 14°F and high of 35°F. The chance of wet days varies significantly throughout the year. The wetter season lasts approximately 4 months, from April to August. The month with the most wet days in Rosebud is June, with an average of 10.5 days with at least 0.04 inches of precipitation. The average hourly wind speed varies significantly throughout the year. The windiest month is March, with an average hourly wind speed of 12.5 miles per hour (Weatherspark, 2022). Site-specific meteorological data indicate that wind is predominately from the northwest and from the east in the Badlands area (SDDENR, 2020).

SDDANR is responsible for meeting and maintaining the Federal NAAQS in the state. SDDANR has implemented a network of ambient air monitoring sites across the state to monitor ambient air pollutant levels of criteria pollutants. The ambient air monitor closest to the reservation is the Badlands site, located a short distance south of the Ben Reifel Visitor Center/Park Headquarters at the Badlands National Park. The site's monitoring data show that the NAAQS were met from 2018 to 2020 (SDDANR, 2021b). Additionally, all areas of the state are in attainment with the NAAQS (SDDANR, 2021b). The air is generally considered to be clean in the areas under consideration for this analysis and these areas are in attainment of primary and secondary regulatory standards for ambient air quality. Also, the state's two Class I Areas of Badlands and Wind Cave National Parks are not in close proximity to the Rosebud Indian Reservation, and thus, issues related to visibility and regional haze are not a concern for this SPEA.

The sources of criteria pollutants from agriculture (not including fuel combustion sources) on the Rosebud Indian Reservation include crops and livestock dust, fertilizer application, livestock waste, and agricultural field burning. Agriculture contributes to the overall air quality concerns of the state in a significant way. Emissions from PM_{10} and from $PM_{2.5}$ from the agriculture sector in South Dakota make up approximately 50 percent of the total emissions (USEPA, 2017).

In 2020, the agriculture sector was responsible for emissions of 594.7 million metric tons of CO_2- equivalent, or approximately 10 percent of total GHG emissions in the country, with the majority of N_2O emissions being generated from agricultural soils. Emissions of N_2O through activities such as fertilizer application and other agricultural practices accounted for 74 percent of total GHG emissions (USEPA, 2020).

According to the Fourth National Climate Assessment, the United States as a whole is experiencing significant changes in temperature, precipitation, and significant weather events as a result of climate

change (U.S. Global Change Research Program, 2018). Some of the changes reported in the assessment that affect the country also affect the Great Plains region. The impacts of climate change throughout the Northern Great Plains include changes in flooding and drought, rising temperatures, and the spread of invasive species. Ranchers, Tribal communities, universities, government institutions, and other stakeholders from across the region have taken action to confront these challenges. Specifically, many Tribal communities in South Dakota are also working on climate adaptation measures. For example, in 2019, the Rosebud Sioux Tribal Council asked the Sicangu Climate Crisis Working Group (SCCWG) to prepare a plan for responding to climate change for the Sicangu Lakota Oyate. The resulting *Climate Adaptation Plan for the Sicangu Lakota Oyate* was prepared under SCCWG guidance by a small team of consultants, all of whom have ties to Rosebud and other native nations. (SCCWG, 2022). The recommendations in the plan focus on the main areas in which climate change will directly affect the Sicangu Lakota Oyate.

3.6.3 Environmental Consequences Evaluation Criteria

The entire state, including the counties of Gregory, Lyman, Mellette, Tripp and the entirety of Todd County, within which the CREP project area is located, meet the Federal standards for emissions of criteria pollutants and are in attainment of the NAAQS for all specified pollutants (40 CFR § 81.328 and § 81.342). In general, air quality impacts in these attainment areas would be considered significant if air emissions associated with the Proposed Action could potentially violate the NAAQS. Impacts would also be considered significant if pollutant emission concentrations associated with the Proposed Action have a potential to impact sensitive receptors (e.g., schools, hospitals) or designated Class I Areas, or have the potential to violate any SIP provisions, including visibility.

For this analysis, the potential impact to air quality is evaluated generally in a qualitative manner, because the location and sizes of specific parcels that would be enrolled are not known.

3.6.4 Environmental Consequences – Proposed Action Alternative

Installation of CP88, Permanent Grasses and Legumes, would maintain existing vegetative cover of either introduced or native grasses and legumes on eligible CRP grassland through rotational grazing. This action would generally yield GHG mitigation benefits and would result in a long-term beneficial air quality impacts.

Management of grazing land can influence emissions of CO_2, CH_4 and N_2O and can also influence soil organic carbon storage by modifying carbon inputs to the soil, including net primary production, root turnover, and carbon allocation between root and shoots (Conant et al., 2001). The same study also found that, on average, across climates and regions, the introduction of legumes and improved grass species led to increases in net soil carbon storage. Additionally, studies have found that, in general, planting nitrogen-fixing legumes can promote carbon sequestration in grassland soils and may provide an alternative to nitrogen fertilization with a lower overall GHG footprint (Conant et al., 2001; Conant et al., 2017). Note, the recovery of soil carbon is a slow process and could take several decades. However, air quality is likely to benefit in the long-term from implementation of the proposed CREP Agreement due to increased storage of organic carbon. The potential for carbon sequestration and reduction in pollutant emissions would likely have an overall positive effect on air quality resulting in a mitigating effect on GHG emissions.

Installation and maintenance for CP88 may include installation of fencing and gates, water sources for livestock, and construction of fuel breaks. Activities such as digging and debris removal can produce dust or release particulate matter into the air. These emissions would be primarily fugitive in nature and temporary. Watering exposed soil during, and after, such ground-disturbing activities would reduce dust emissions. Use of diesel vehicles and heavy-duty equipment would emit air pollutants into the air as exhaust emissions from combustion of fuel. Routine and proper maintenance of equipment and vehicles would keep these pollutant emissions in check. These emissions are not likely to impact regional air quality significantly as they would be localized and temporary.

Debris removal activities may take place in combination with prescribed burning of vegetative material. The exact location and extent of burning that would take place for this Proposed Action is not known at this time. Burning could release PM_{10}, $PM_{2.5}$, CO and NO_2 into the air. The type and quantity of these pollutants would be determined by the number of acres burned, the type of vegetation being burned and the weather

conditions. Depending on where the burn takes place, there could be restrictions to burning in the area. Consultation with Tribal, state, and local permitting agencies, as applicable, is recommended to determine the open burning regulations for the affected county given that these regulations can change each season. For example: South Dakota's Wildland Fire Division requires that a person obtain an open burning permit for burns in the Black Hills Forest Protection District. Also, in some cases, a permit from the local fire department may be required. If open burning is planned, there are specific guidelines to follow provided by SDDANR (SDDANR, 2021a). It is not anticipated that prescribed burning would have a significant negative impact on the local air quality as adequate precautions would be followed.

Construction of structures, such as firebreaks, hydrological barriers, and other access control devices could be performed with various types of equipment, such as backhoes, front-end loaders, tractors and skid-steer loaders. Diesel vehicles and heavy-duty diesel equipment used for such operations would emit pollutants such as CO, volatile organic compounds, NOx and PM, but these emissions would be localized, temporary and minor. Routine and proper maintenance of equipment and vehicles and use of BMPs for construction activities would reduce pollutant emissions. Fugitive emissions from construction activities would be mitigated using dust suppression practices, as needed.

Haying, mowing, and harvesting for seed production would all likely reduce short-term carbon sequestration and may even release GHGs but can positively impact the land's ability to sequester future carbon by increasing soil organic matter.

None of the CP88 installation and maintenance activities are anticipated to result in visual impairment of any Class I Areas, cause or contribute to a violation of any NAAQS, or expose sensitive receptors to substantially increased pollutant concentrations. Overall, there is potential for air quality to benefit in the long-term due to the potential for carbon sequestration. Implementation of the Proposed Action could potentially improve air quality in the region.

3.6.5 Environmental Consequences – No Action Alternative

Implementation of No Action Alternative would not change existing air quality conditions. CP88, described in **Section 2.1.2,** would not be implemented. As part of the No Action Alternative, existing grassland practices would continue, and air quality conditions would not change. Also, under the No Action Alternative, existing grasslands and shrublands could be converted to uses other than grazing. This could result in increases in GHG emissions and criteria pollutants.

3.7 SOILS AND TOPOGRAPHY

3.7.1 Definition of Resource

Soils are the unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, and physical characteristics. Differences among soil types in terms of structure, elasticity, strength, shrink-swell potential, and erosion potential affect the ability of a given area to support certain applications or uses. In certain cases, soil properties must be assessed for compatibility with particular construction activities or types of land use. Topography and physiography pertain to the general shape and arrangement of the land surface, including the height and position of natural and man-made features.

3.7.2 Affected Environment

The Rosebud Indian Reservation topography primarily consists of tablelands that rise to steep buttes and canyons. Surface relief ranges from nearly level on tablelands in the central part of Todd County to steep and rough on the sides of buttes and canyons. Elevation ranges from roughly 2,150 feet above mean sea level (amsl) in the northeast to roughly 3,150 feet amsl in the southeast (Springer, 1974). Gregory County is within the Pierre Hills region in the Missouri Plateau section of the Great Plains with the southern portion of the County located within loamy Tertiary tableland described as generally level to moderately steep in areas of buttes and escarpments; elevations range from approximately 1,250 to 2,300 feet amsl (USDA, 1984). Most of Lyman County is situated within the Pierre Hills region in the Missouri Plateau section of the Great Plains; however, the eastern edge is in the Missouri River Trench; the lowest elevation is alongside

Lake Francis Case at approximately 1,375 feet amsl and the highest is on Medicine Butte at 2,262 feet amsl. Mellette County lies within the White River drainage basin with approximately one-third of the country identified as very hilly or badland with elevations ranging from 1,630 to 2,800 feet amsl (USDA, 1975), and Tripp County consists of rolling hills of the Great Plains with elevations ranging from 1,342 to 2,723 feet amsl.

The Rosebud Indian Reservation falls within the "Warm Dry Plain" soil region that is characterized by the following soil taxonomic groups: Mesic, Typic Ustolls, and Ustorthents (Malo et al., 2010). Gregory, Lyman and Tripp Counties' soils formed in material weathered from the underlying geologic formations primarily consisting of calcareous sandstone and in material transported and redeposited by wind and water such as loess and eolian sands (USDA, 1979; USDA, 1984; USDA, 1987). The soils in Mellette County formed from clayey shales of the Pierre Formation and unconsolidated material relocated by wind and water. Multiple soil associations are identified for each county within the project area; **Appendix D** provides a detailed description for each identified soil association.

3.7.3 Environmental Consequences Evaluation Criteria

Minimization of soil erosion, and the siting of facilities in relation to potential geologic hazards are considered when evaluating potential impacts of the Proposed Action on soils and topography. Generally, impacts can be avoided or minimized if proper construction techniques and erosion control measures are incorporated into project development.

Effects on soils and topography would be adverse if they would alter the lithology, stratigraphy, or geological structures that control groundwater quality or availability. Impacts would also be considered adverse if implementation changes the soil composition, structure, or function of soil within the environment or if implementation permanently increases the potential for erosion.

3.7.4 Environmental Consequences – Proposed Action Alternative

Under the Proposed Action Alternative, long-term beneficial impacts are expected to occur from stabilization of soils and topography. Enhanced vegetative cover would hold the soil in place and lead to lower soil erosion rates. Soil compaction would decrease from rotational grazing, protecting the soil structure of the grasslands. As described in **Section 3.6.4,** planting nitrogen-fixing legumes can promote carbon sequestration in the soil. Increased soil carbon can lead to improved nutrient and water holding capacity and can improve soil structure.

Short-term disturbances to soils could result from the installation of various structures to implement rotational grazing such as fences and water features. These ground disturbing activities may result in temporary minor increases in soil erosion; however, they would be reduced by implementing erosion control BMPs such as establishing stable grades, applying water to limit airborne dust in windy environments, and installing silt fencing. Under the Proposed Action Alternative, erosion and soil compaction would be properly controlled during CP88 installation resulting in minor impacts to soils.

3.7.5 Environmental Consequences – No Action Alternative

Under the No Action Alternative, the proposed CREP would not be implemented. Eligible lands would not be enrolled in the proposed CREP and potential benefits to soils and topography would not occur. The beneficial impacts associated with the expected reduction in erosion would not occur and soil degradation would continue.

3.8 SOCIOECONOMICS

3.8.1 Definition of Resource

Socioeconomic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a community or region. The socioeconomic conditions of a region could be affected by changes in the rate of population growth, changes in the demographic characteristics of a region, or changes in employment caused by the implementation of a Proposed Action.

The sections below identify the information essential to describe the broad-scale demographic and economic components of the Rosebud Sioux Tribe CREP Amendment project area which consists of the Rosebud Indian Reservation and Rosebud Sioux Tribal lands in Gregory, Lyman, Mellette, Tripp, and Todd Counties in South Dakota.

3.8.2 Affected Environment

3.8.2.1 General Population Characteristics

Population

The population of South Dakota increased by approximately 9 percent between 2010 and 2020, from 814,180 persons to 886,667 persons (U.S. Census Bureau, 2022a). The Rosebud Indian Reservation experienced a population decrease of 3.1 percent during the same period, from 9,612 persons to 9,319 persons (U.S. Census Bureau, 2022b).

Personal Income and Earnings

Median household income and per capita income for South Dakota and Gregory, Lyman, Mellette, Tripp, and Todd Counties is shown in **Table 3-3** (all dollar amounts shown are 2021 dollars). Median household income and per capita income in the counties are lower than the state as a whole. Lyman County has the highest median household income and Gregory County has the highest per capita income. Todd County has the lowest median household income and per capita income among all the jurisdictions shown in **Table 3-3** (U.S. Census Bureau, 2023).

Table 3-3. Median Household Income and Per Capita Income for South Dakota and the Rosebud Sioux Tribe CREP Amendment Project Area (2021 Dollars)

Jurisdiction	Median Household Income	Per Capita Income
South Dakota	$63,920	$33,468
Gregory County	$44,654	$28,355
Lyman County	$55,977	$22,812
Mellette County	$35,726	$15,299
Tripp County	$55,274	$25,526
Todd County	$26,250	$10,301

Source: U.S. Census Bureau, 2023

Table 3-4 illustrates data from the Bureau of Economic Analysis (BEA) for earnings by place of work between 2016 and 2021 for counties in the Rosebud Sioux Tribe CREP Amendment project area. The 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 South Dakota increased approximately 36.3 percent between 2016 to 2021 at an average annual rate of approximately of 7.6 percent (BEA, 2023a). Personal income across the project area counties increased 43.9 percent between 2016 and 2021. Farm proprietors' income fluctuated widely during this time period but experienced a substantial overall increase of 402.4 percent, while nonfarm proprietors' income increased steadily over the 6-year period with an overall increase of 28.9 percent. Likewise, farm earnings also fluctuated between 2016 and 2021 but overall increased substantially by 289.1 percent, whereas nonfarm earnings grew much less at 26.9 percent. The large increases in farm proprietor's income and farm earnings from 2019 to 2021 can likely be attributed to payments from various Federal government relief programs during the coronavirus pandemic.

Table 3-4. Earning Measures for Counties in the Rosebud Sioux Tribe CREP Amendment Project Area

Earnings Measure (dollars)	2016	2017	2018	2019	2020	2021	Percent Change 2016 to 2021
Personal Income	828,941	871,970	925,252	936,871	1,046,989	1,192,833	43.9
Farm Proprietor's Income	27,745	49,862	76,331	48,640	84,247	139,401	402.4
Nonfarm Proprietor's Income	55,399	58,147	59,981	61,049	67,031	71,421	28.9
Farm Earnings[1]	39,917	65,069	89,909	65,674	101,548	155,313	289.1
Average Farm Earnings [2]	7,983	13,014	17982	13,135	20,310	31,063	289.1
Nonfarm Earnings	413,262	428,165	445,144	459,372	480,566	524,497	26.9

Notes:

[1] Farm Earnings comprise the net income of sole proprietors, partners, and hired laborers arising directly from the current production of agricultural commodities, either livestock or crops. It includes net farm proprietor's income and the wages and salaries, pay-in-kind, and supplements to wages and salaries of hired farm laborers; but specifically excludes the income of non-family farm corporations.

[2].Average Farm Earnings is the average of the totals for each of the four reservation counties. All other values shown were derived from Bureau Economic Analysis data for Bennett, Jackson, and Oglala Lakota Counties in South Dakota and Sheridan County, Nebraska (BEA, 2023a).

Employment

The Bureau of Labor Statistics (BLS) compiles current and historic data on the labor force, the number of persons employed, the number of persons unemployed, and the unemployment rate. South Dakota, between 2017 to 2022, increased the total labor force by approximately 4.2 percent to 475,074 persons. The annual average unemployment rate increased 1 percentage point from 2017 to 2.1 percent in 2022, though South Dakota has the second lowest annual average unemployment rate in the country. For the counties in the Rosebud Sioux Tribe CREP Amendment project area, between 2017 to 2022, the labor force decreased by 39 persons to 10,674 persons. The 2022 annual average unemployment rate was 2.5 percent in the project area, which is down from 4.2 percent in 2017 (BLS, 2017; BLS, 2022).

The BEA also tracks employment characteristics at the farm and nonfarm levels. **Table 3-5** illustrates the employment levels between 2016 to 2021 for the state of South Dakota and the Rosebud Sioux Tribe CREP Amendment project area. The data for both South Dakota and the reservation show overall increases in total employment and farm employment from 2016 to 2021, with a slight decrease at both the state and project area level in 2020, likely due to effects from the coronavirus pandemic. Employment in the project area recovered in 2021 to levels above 2019 totals, but not as robustly as at the state level. Farm employment was generally steady within the project area during the 6-year period and generally represents a notably higher percentage of employment than at the state level (BEA, 2023b).

Table 3-5. Employment in the State and Rosebud Indian Reservation 2016-2021

Type of Employment	2016	2017	2018	2019	2020	2021
State of South Dakota						
Total Employment	597,324	601,277	610,237	610,900	606,699	622,335
Farm Employment	30,910	31,475	31,264	31,974	33,262	32,170
Farm Employment (percentage)	5.2	5.2	5.1	5.2	5.5	5.2
Nonfarm Employment	566,414	569,802	578,973	578,926	573,437	590,165

Table 3-5. Employment in the State and Rosebud Indian Reservation 2016-2021

Type of Employment	2016	2017	2018	2019	2020	2021
Rosebud Sioux Tribe CREP Amendment Project Area						
Total Employment	13,383	13,455	13,468	13,510	13,408	13,538
Farm Employment	2,056	2,114	2,101	2,157	2,255	2,171
Farm Employment (percentage)	15.4	15.7	15.6	16.0	16.8	16.0
Nonfarm Employment	11,327	11,341	11,367	11,353	11,153	11,366

Source: BEA, 2023b

3.8.2.2 General Agricultural Characteristics

The National Agricultural Statistic Service (NASS) estimated that there were approximately 29,968 farms with approximately 43.2 million acres of land in farms in South Dakota in 2017 (NASS, 2017). The FSA detailed in its June 2023 CRP monthly report that there were 13,921 South Dakota farms with CRP contracts with 2.1 million acres in CRP practices (FSA, 2023).

For the Rosebud Sioux Tribe CREP Amendment project area, the best available data was compiled in the 2017 Agricultural Census and is summarized in **Table 3-6**. In 2017, the project area accounted for approximately 9.3 percent of South Dakota's total land area, with land in farms representing 92.3 percent of the project area and almost 9 percent of the state's land area. Pasture and rangeland represented almost 61 percent of the project area's total land area while total cropland and harvested cropland account for 29.3 percent and 22.5 percent of the project area. Pasture and rangeland in the project area also represents almost 6 percent of the state's land area (NASS, 2017).

Table 3-6. 2017 Agricultural Land Use in Todd County and South Dakota

Land Use [1]	Rosebud Sioux Tribe CREP Amendment Project Area (acres) [1]	Percent of Project Area	South Dakota (acres)	Percent of Project Area in South Dakota
Approximate Land Area	4,531,840	100.0	48,566,168	9.3
Land in Farms	4,182,135	92.3	43,243,742	8.6
Total Cropland	1,328,171	29.3	19,813,517	2.7
Harvested Cropland	1,018,604	22.5	16,371,543	2.1
Woodland	41,734	0.9	284,905	0.1
Pasture and Rangeland	2,753,378	60.8	21,997,620	5.7
Land in Houses, Roads, Ponds, etc.	85,120	1.9	1,147,700	0.2

Source: NASS, 2017

[1] Represents the total of the various land use categories in Gregory County, Lyman County, Mellette County, Tripp County, and Todd County, South Dakota based on data provided in the 2017 USDA NASS *Census of Agriculture* (NASS, 2017).

3.8.2.3 Regional Production Expenses, Agricultural Sales, and Other Farm Related Income

Selected economic data for farms in the Rosebud Sioux Tribe CREP Amendment project area are shown in **Table 3-7** (NASS, 2017). Additional detailed data by county within the project area is provided in **Appendix E**.

As shown in **Table 3-7**, farms in the project area had a total combined income of over $530 million from agricultural sales and other farm-related sources of income. Total farm production expenses within the project area were more than $430 million. The difference between farm income and farm expenses is approximately $25 per acre (NASS, 2017).

Table 3-7. Selected Economic Data for Farms in the Rosebud Sioux Tribe CREP Amendment Project Area

Metric	Number or Value
Number of Farms	1,999
Total Agricultural Sales	$491,768,000
Other Farm-related Income [1]	$40,815,000
Average Agricultural Sales per Farm	$236,612
Average Farm-related Income per Farm	$31,884
Farm Income per Acre from Agricultural Sales	$120.03
Income per Acre from Farm-related Sources	$9.96
Farm Production Expenses	$430,735,000
Average Production Expenses per Farm	$206,579
Farm Production Expenses per Acre	$105.13

Source: NASS, 2017

[1] Includes income from recreation, custom farming, cooperative patronage rebates, cash rents, etc.

3.8.3 Environmental Consequences Evaluation Criteria

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 highest 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.

3.8.4 Environmental Consequences – Proposed Action Alternative

Implementation of the Proposed Action would generate $13.5 million in annual rental payments if 900,000 acres were enrolled. This would amount to $202.5 million over 15 years. The net discounted value of this amount is $94 million, with an average discounted value per year of $6 million. This is a fully implemented scenario that was developed by assuming full enrollment of 900,000 acres for 15 years in year one. A more likely scenario is a gradual conversion up to a certain point of less than full enrollment.

Federal funding would be used to pay the rental rates and additional funding would also be provided for cost sharing to install CP88. Enrollment in the CREP would not preclude producers from haying and grazing; therefore, producers would still be able to generate income from agricultural sales. It is also anticipated that a large portion of the lands that would be enrolled already have some off the necessary facilities, such as water facilities and fencing, so the cost to install CP88 is not expected to be exceedingly high, and the producer would be responsible for only 50 percent of these installation costs.

For land enrolled under CP88, the conservation plan would contain provisions for common grazing or forage management practices and related activities consistent with achieving CRP purposes and maintaining the health and viability of grassland resources. The grassland CRP is a working lands program. Working lands conservation programs help farmers to enhance the sustainability of their operations while keeping land in production. Enhancing the sustainability of the grasslands increases the economic value of grassland through increases in grassland productivity and increases in the carrying capacity of the land enrolled.

The economic impact of implementing the Rosebud Sioux Tribe CREP Agreement would be beneficial for producers. The program is voluntary, so if a producer believes that enrolling in the program would not be

profitable, they could choose not to enroll. Previous studies have conducted that the economic benefits of the CRP outweigh the costs to taxpayers. Economic benefits of CRP include the reduction of soil erosion, the improvement of recreation conditions, and the increase in land values (Wu and Weber, 2012). Although, enhanced wildlife habitat is not a goal of this CREP, wildlife would benefit from improved grassland productivity and reduced erosion as described in **Section 3.3.4.2**. Improved wildlife habitat would contribute positively to recreational activities and expenditures in the region, such as wildlife viewing activities, hunting, and fishing (improved water quality would increase fish populations).

Additionally, part of the evaluation of all lands offered for enrollment in CRP is a site-specific EE, which includes an evaluation of potential negative impacts on the local social and economic conditions. The site-specific EE would ensure that enrollment of specific lands into the CREP would not result in significant adverse impacts to the local economy.

Implementation of the Proposed Action Alternative would result in long-term beneficial impacts to producers and would improve the economic conditions in the region.

3.8.4.1 General Population Impacts

Implementing the Proposed Action is unlikely to produce significant changes in the general population characteristics of the region in either the short or long term. On average, declines in agriculture and supporting industries due to enrollment of land in CRP are on average offset by increases in other businesses and industries such as recreation. Additionally, CRP does not contribute to outmigration and population decline in rural counties (Sullivan et al., 2004; Brown et al., 2018). In the case of the grassland CRP, there could be a small increase in population as the economic benefits of the program may encourage producers to return to previous ranching operations.

3.8.5 Environmental Consequences – No Action Alternative

Under the No Action Alternative, the CREP would not be implemented, and current agricultural practices would continue. Unlike the Proposed Action Alternative, no acreage within the reservation would be enrolled in CP88. 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 implementing CP88 that include improvements in water quality, soil retention, grassland productivity, carrying capacity, and improved wildlife habitat. Any regional economic benefits from increased hunting, fishing, and wildlife-watching expenditures would not be realized.

3.9 ENVIRONMENTAL JUSTICE

3.9.1 Definition of Resource

In accordance with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, Federal agencies are required to address disproportionate environmental and human health effects in minority and low-income communities. For the purposes of this analysis, minority populations are defined as persons identifying as Alaska Native and American Indian, Asian, Black or African American, Native Hawaiian, and Pacific Islander, or persons of Hispanic origin (of any race). Low-income populations include persons living below the poverty threshold as determined by the U.S. Census Bureau.

EO 12898 pertains to environmental justice issues and relates to various socioeconomic groups and potential disproportionate impacts that could be imposed on them. This EO requires that Federal agency actions substantially affecting human health or the environment do not exclude persons, deny persons benefits, or subject persons to discrimination because of their race, color, or national origin. EO 12898 was issued to ensure fair treatment, meaningful involvement, and access to benefits for all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of Federal environmental laws, regulations, and policies. Consideration of environmental justice concerns includes race, ethnicity, and the poverty status of populations in the vicinity of a Proposed Action.

3.9.2 Affected Environment

Per CEQ guidance, minority populations are identified where either the minority population of the affected area exceeds 50 percent, or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. Following the Office of Management and Budget's Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty.

To determine if minority or low-income populations are present in the project area, the project area must be compared to a larger regional area that includes the affected area and serves as a Community of Comparison (COC). The state of South Dakota is the COC for this environmental justice analysis. The racial and ethnic composition of the state of South Dakota and counties within the Rosebud Sioux Tribe CREP Amendment project area are shown in **Table 3-8** (U.S. Census Bureau, 2023). The percent of persons living in poverty in the state of South Dakota and counties within the Rosebud Sioux Tribe CREP Amendment project area are shown in **Table 3-9**.

As shown in **Table 3-8**, the percentage of persons identifying as American Indian and Alaska Native exceeds 50 percent or is substantially higher in Lyman, Mellette, Tripp, and Todd Counties than the corresponding percentage in the state of South Dakota. Additionally, as a whole, the average percentage of those identifying as American Indian and Alaska Native in the combined project area counties exceeds 40 percent compared to the corresponding state percentage of 8.5 percent (U.S. Census Bureau, 2023). Therefore, substantial concentrations of minority populations are present in Lyman, Mellette, Tripp, and Todd Counties as well as the combined Rosebud Sioux Tribe CREP Amendment project area.

Table 3-8. Racial and Ethnic Composition of the Population South Dakota and Rosebud Sioux Tribe CREP Amendment Project Area Counties

Jurisdiction	Total Population	Race / Ethnicity (percent) [1]				
		White (not Hispanic or Latino)	American Indian and Alaska Native	Asian	Two or More Races	Hispanic or Latino
South Dakota	909,824	80.7	8.5	1.8	2.8	4.9
Gregory County	3,962	87.7	8.0	0.5	3.3	1.9
Lyman County	3,692	52.7	39.3	0.6	5.6	4.4
Mellette County	1,892	36.1	55.0	0.3	6.5	4.0
Tripp County	5,565	78.7	16.2	0.5	3.0	2.6
Todd County	9,220	7.6	84.5	3.8	2.8	4.3
Average Percentage of Rosebud Sioux Tribe CREP Amendment Project Area Counties		52.6	40.6	1.1	4.2	3.4

Source: U.S. Census Bureau, 2023.

[1] The percentage of the population identifying as Black or African American or Native Hawaiian or Other Pacific Islander is less than 50 percent and does not exceed the statewide percentage of 2.6 percent and 0.1 percent for those populations, respectively; therefore, these percentages are not shown in this table.

As shown in **Table 3-9**, the percentage of persons in poverty in each of the Rosebud Sioux Tribe CREP Amendment project area counties is higher than that of the state, and is more than double that of the state in Mellette and Todd Counties. Additionally, the average percentage of persons in poverty in the combined counties of the Rosebud Sioux Tribe CREP Amendment project area is also double that of the state (U.S. Census Bureau, 2023). Therefore, substantial concentrations of persons in poverty are present in the Rosebud Sioux Tribe CREP Amendment project area.

Table 3-9. Percentage of Persons in Poverty in South Dakota and Rosebud Sioux Tribe CREP Amendment Project Area Counties

Jurisdiction	Persons in Poverty (percent)
South Dakota	12.3
Gregory County	14.2
Lyman County	20.7
Mellette County	30.0
Tripp County	20.5
Todd County	39.8
Average Percentage of Rosebud Sioux Tribe CREP Amendment Project Area Counties	25.0

Source: U.S. Census Bureau, 2023.

3.9.3 Environmental Consequences Evaluation Criteria

Environmental justice analysis applies to potential disproportionate effects on minority or low-income populations. Environmental justice issues could occur if an adverse environmental or socioeconomic consequence to the human population fell disproportionately upon minority or low-income populations. Environmental justice impacts could also occur if the benefits of a Proposed Action would be disproportionally low for minority or low-income populations.

3.9.4 Environmental Consequences – Proposed Action Alternative

The majority of the environmental impacts described in this SPEA would be beneficial to the region and to producers enrolling land into the CREP. The enrollment of lands into the CREP is voluntary and open to any producer with qualifying land. Some negligible and minor adverse impacts have been identified in this SPEA. These adverse impacts would be temporary and not significant. Additionally, part of the evaluation of all lands offered for enrollment in CRP is a site-specific EE, which includes an evaluation of potential environmental justice impacts. The site-specific EE would ensure that enrollment of specific lands into the CREP would not result in disproportionately adverse human health or environmental effects onminority or low-income communities. The Proposed Action Alternative would not substantially affect populations covered by EO 12898 by excluding persons, denying persons benefits, or subjecting persons to discrimination or disproportionate environmental or human health risks. Therefore, the Proposed Action Alternative would have no disproportionately adverse effects on minority and low-income populations.

3.9.5 Environmental Consequences – No Action Alternative

Under the No Action Alternative, no changes to the existing agricultural lands in the Rosebud Sioux Tribe CREP Amendment project area would occur. The No Action Alternative would not exclude persons, deny persons benefits, or subject persons to discrimination or disproportionate environmental or human health risks. Therefore, the No Action Alternative would have no disproportionately adverse environmental or health effects on low-income or minority populations.

3.10 CUMULATIVE IMPACTS

Cumulative impacts to environmental resources result from the incremental effects of proposed actions when combined with other past, present, and reasonably foreseeable future projects in the project area. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals. Past and present actions are reflected in the Existing Conditions sections for each resource area. A list of reasonably foreseeable actions in the project area that could result in cumulative impacts with implementation of the Proposed Action are shown in **Table 3-10.** Future actions that have no potential for cumulative impacts to resources analyzed in this SPEA are not listed in the table.

Table 3-10. Reasonably Foreseeable Future Actions

Scheduled Project	Project Summary	Implementation Date	Relevance to Proposed Action	Interaction with Resources
Turtle Creek Regenerative Development (Todd County)	The plan for the 600-acre site located on Tribal land near Mission, South Dakota utilizes a phased approach that includes housing, recreation, and business development. REDCO completed a master plan for the site, with several rounds of community input, needs assessments, and economic analysis and is beginning the implementation of Phase 1. This phase includes 10 single-family homes, retail space, and the Sicangu Innovation Center – which will be a multi-use community hub.	TBD	Potential construction timing overlap with Proposed CREP implementation.	Earth Resources, Socioeconomic, Land Use, Transportation, Infrastructure, Cultural, Safety, Water Resources.
Bridge Replacements (Todd County)	Funds awarded for: • Crow Bridge • Hollow Horn Bear Bridge • Beads Creek Bridge • Old Hollow Wood • Valandra Bridge	Beads Creek Bridge: 2023 Other replacement dates are TBD.	Potential construction timing overlap with Proposed CREP implementation.	Earth Resources, Transportation, Infrastructure, Safety, Water Resources, Biological Resources, Wetlands.
Erosion and Slide Repair, Pipe work, and Grading in Gregory County	Erosion and Slide Repair, Pipe work, and Grading along SD44 from SD47 to Missouri River, SD1806 from SD44 S 4.5, and SD44- 6 W of the Platte-Winner Bridge in Gregory County	2026	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.
US-83 Pipe work, Modify Drainage in Mellette County	Pipe work and drainage modification along US-83 1.25 S of the S US-83/SD44 Junction	2023	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.

Table 3-10. Reasonably Foreseeable Future Actions

Scheduled Project	Project Summary	Implementation Date	Relevance to Proposed Action	Interaction with Resources
Mill, Resurfacing, and Pipe Work in Mellette and Lyman Counties	Milling, asphalt concrete resurfacing, and pipe work at SD44 from US-83 to E City Limits of Wood in Mellette County and SD47 from I-90 to W of Fort Thompson, SD248 from Reliance to I-90, and SD47 from N of SD49 to I-90 in Lyman County	2023	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.
Roadway Full Depth Reclamation and Improvements in Mellette County)	Full depth reclamation, asphalt concrete surfacing, intersection modifications, pipe work, and gravel surfacing at SD44 from SD63 to the North Junction of US-83; SD63 from N of SD44 to Belvidere; and SD53 from SD44 N 11. SD44-SD63 intersection will be modified and lighting upgraded	2023	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.
Pipe Work, Erosion Repair, and Slide Repair	I-90 E & W from W of Exit 248 (Reliance) E to the Missouri River Bridge SD47 from 7 S of SD49 S 5	2026	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.
Bridge Concrete Overlays at Various Locations in Tripp and Mellette Counties	US-18- 5 SE of Winner over Creek, 3.9 E of US-183N over Big Hollow Creek & 2 SE of Winner over Sand Creek; SD44-1.6 E of US-18 Over Sand Creek; SD 49-4.3 SW of Lyman County Line over Moccasin Creek;SD53-12.8 S of US-18 over Willow Creek; and SD44-2.3 W of US-83 over Pine Creek	2024 - 2026	Potential construction timing overlap with Proposed CREP implementation.	Noise, Socioeconomics.

Table 3-10. Reasonably Foreseeable Future Actions

Scheduled Project	Project Summary	Implementation Date	Relevance to Proposed Action	Interaction with Resources
Structure Replacements and Improvements in Tripp and Mellette Counties	Structure replacement, approach grading, and engineering for the following structures: • Structure 2 N & 4.8 E of Ideal on 264th St over Old Lodge Creek • Structure 1.7 E & 8 N of Winner on 270th St over Old Lodge Creek • Structure 4.3 S & 1 W of Clearfield on 306th Ave over Keyapaha River • Structure 1.5 W & 1.5 N of Wewela on 318th Ave over the Keyapaha River • Structure 4.8 E & 0.8 N of Colome on 285th St over W Br of Bull Creek • Structure 5 W & 0.8 S of White River on Pine Creek Rd Over Pine Creek	2023 - 2025	Potential construction timing overlap with Proposed CREP implementation.	Earth Resources, Transportation, Infrastructure, Safety, Water Resources, Biological Resources, Wetlands.
Kilgore Road Reconstruction	Reconstruction of the Kilgore Road in Todd County consists of repairs of the roadway, widening the shoulders, getting the slopes up to specifications.	2024	Potential construction timing overlap with Proposed CREP implementation.	Earth Resources, Biological Resources.

Sources: Rosebud Sioux Tribe, 2023; SD Department of Transportation, 2023

There would be no potential for cumulative impacts from the No Action Alternative. The analysis below is for potential cumulative impacts from implementation of the Proposed Action.

3.10.1 Biological Resources

Implementation of the Proposed Action would result in long-term beneficial impacts to biological resources. These would be additive to the beneficial impacts from other similar USDA programs and other state and Federal conservation programs that aim to protect and restore habitat on the reservation.

The planned Turtle Creek Regenerative Development described in **Table 3-10** would affect 600 acres of Tribal land near Mission, South Dakota, making conservation of the remaining grasslands even more important.

3.10.2 Cultural Resources

Assuming compliance with Section 106 of the NHPA as outlined in **Section 3.4.4**, when considered in combination with the other reasonably foreseeable future actions, including the large Turtle Creek Regenerative Development, the Proposed Action is not expected to result in significant cumulative impacts to historic properties.

3.10.3 Water Resources

Short-term, adverse impacts to surface water may occur during establishment of CP88, but these impacts would be negligible, well controlled with BMPs, and would not impact water quality at the regional level. Any adverse environmental impacts to water resources from the Proposed Action Alternative would be negligible to minor on their own and, when added to the impacts to water resources from other reasonably foreseeable future actions, would not result in a significant impact.

3.10.4 Air Quality

The Proposed Action Alternative to enroll existing grassland into the CREP program would add to land already participating in CREP or other similar conservation programs in South Dakota. If more land is brought under conservation programs, there would be an additional improvement in air quality in the long-term. Any adverse air quality impacts from the Proposed Action Alternative would be negligible to minor on their own and, when added to the anticipated air quality impacts from the future actions in **Table 3-10**, would not result in a significant impact.

3.10.5 Soils and Topography

Short-term, adverse impacts to soils may occur during installation of CP88, but these impacts would be negligible, well controlled with BMPs, and would not impact erosion rates at the regional level. Any adverse environmental impacts to soils and topography from the Proposed Action Alternative would be negligible to minor on their own and, when added to the impacts from other reasonably foreseeable future actions, would not result in a significant impact.

3.10.6 Socioeconomics

The Proposed Action along with reasonably foreseeable future actions could result in direct or indirect impacts to the economy of the region. The CREP program would be economically beneficial to agricultural producers and would also provide societal benefits such as reduced soil erosion, improved water quality, and improved wildlife habitat. As with other USDA conservation programs, long-term beneficial impacts to recreation would occur. Recreational opportunities indirectly benefit from other Federal and state conservation programs that protect and restore habitat, resulting in cumulative beneficial impacts to wildlife-related recreational opportunities. Therefore, the Proposed Action would not contribute to significant adverse cumulative impacts on socioeconomics when considered with other reasonably foreseeable future actions identified in **Table 3-10.**

3.10.7 Environmental Justice

The Proposed Action Alternative would have no disproportionately adverse effects on minority and low-income populations. Therefore, the Proposed Action would have no potential to contribute to significant effects on minority and low-income populations when considered with other reasonably foreseeable future actions identified in **Table 3-10**.

4.0 REFERENCES

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APPENDICES

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APPENDIX A
Conservation Practice Description

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The below pages are excerpts from FSA's handbook for the Conservation Reserve Program, 2-CRP, Agricultural Resource Conservation Program. Only CP88 would be authorized under the Rosebud Sioux Tribe CREP Agreement.

Exhibit 11

(Par. 31, 34, 66, 171, 181, 184, 211, 237, 262, 270, 366, 426, 428, 429, 490, 511, 512, 932, Ex. 26)
National CRP Practices (Continued)

CP87 Permanent Introduced Grasses and Legumes (CP87 Eligible To Be Offered for SU200 and SU201 Only)

A Program Policy

*--Apply CP87 to maintain existing permanent introduced grasses and legumes on eligible grassland CRP. Beginning with grassland CRP SU202, CP87 is **no** longer available for new offers.--*

For offers submitted before SU202, this practice code is used to identify land:

- under CRP-1, if a permanent introduced grasses and legumes eligible for the applicable signup is already established
- not under CRP-1, with a permanent introduced grasses and legumes that was already established for the applicable signup period.

C/S is authorized for offers accepted before SU202:

- water developments as a component of CP87
- fencing as a component of CP87
- access control as a component of CP87.

Technical practice codes 314, 315, 338, 378, 382, 472, 516, 561, 574, 575, 595, and 614 may be used with CP87.

CP88 Permanent Grasses and Legumes

A Purpose

The purpose of this practice is to maintain existing vegetative cover of either introduced or native grasses and legumes on eligible grassland.

B Program Policy

Apply this practice to maintain existing permanent introduced or native grasses and legumes on *--eligible grassland CRP. NRCS or TSP determines, based on a site visit, that the grassland is suitable to be hayed or grazed according to the conservation plan.--*

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Exhibit 11

(Par. 31, 34, 66, 171, 181, 184, 211, 237, 262, 270, 366, 426, 428, 429, 490, 511, 512, 932, Ex. 26)
National CRP Practices (Continued)

CP88 Permanent Grasses and Legumes (Continued)

C Size Requirements

There are no size requirements for CP88.

D Eligibility

To be eligible for C/S, this practice must:

- promote common grazing related activities
- prevent degradation of environmental benefits from recurring
- be included and required in the approved conservation plan
- be maintained for the life of CRP-1
- prevent breaking of native sod.

E C/S Policy

The following shows C/S policies for this practice.

*--

IF the component is…	AND the justification is…	THEN C/S is…
permanent fence (internal)	internal fencing needed to facilitate a livestock grazing system **Important:** A single strand electric fence is not a permanent fence for grassland CRP.	Authorized using technical practice codes 338, 378, 382, 472, 516, 533, 561, 574, 575, 595, and 614.
ponds, wells, spring developments, pipelines, and water facilities	substantiated as needed by COC for the purpose of providing a water source for livestock **Note:** COC must only approve the minimum number of water sources needed.	authorized.
Access control	needed to control access to an area to maintain the quantity and quality of natural resources, or seasonal or permanent livestock exclusion **Example:** Gates between rotational grazing paddocks.	authorized.

--*

Exhibit 11

(Par. 31, 34, 66, 171, 181, 184, 211, 237, 262, 270, 366, 426, 428, 429, 490, 511, 512, 932, Ex. 26)
National CRP Practices (Continued)

CP88 Permanent Grasses and Legumes (Continued)

E C/S Policy (Continued)

IF the component is...	AND the justification is...	THEN C/S is...
fuel break	to control and reduce the risk of the spread of fire by treating, removing, or modifying vegetation, debris, and detritus	authorized.
trails and walkways	to: • provide or improve access to forage, water, working/handling facilities, and/or shelter • improve grazing efficiency and distribution • protect ecologically sensitive, erosive, and/or potentially erosive sites	
prescribed burning	to improve plant production quantity and/or quality by managing fuel loads to achieve desired conditions	
corrals, feedlots, ornamental fences, holding pens, and cattle guards, boundary fence		**not** authorized.

E Practice Requirements

The following are requirements for this practice.

- Limit C/S to the minimum level of treatment necessary to support common grazing practices.
- Chemicals used in performing the practice **must** be:
  - Federally, State, and locally registered
  - applied according to authorized registered uses, directions on the label, and other Federal or State policies and requirements.

Exhibit 11

(Par. 31, 34, 66, 171, 181, 184, 211, 237, 262, 270, 366, 426, 428, 429, 490, 511, 512, 932, Ex. 26)

National CRP Practices (Continued)

CP88 Permanent Grasses and Legumes (Continued)

F Practice Requirements (Continued)

- Noxious weeds and other undesirable plants, insects, and pests must be controlled, including such maintenance as necessary to avoid an adverse impact on surrounding land.

- Haying, mowing, or harvesting for seed production must be subject to appropriate restrictions for species identified by STC focus areas.

G Practice Management

If the producer destroys the practice during the life of CRP-1 or failure is caused by the producer, if COC terminates, the producer must refund all annual rental payments, C/S payments, interest, and liquidated damages according to paragraph 574.

H Environmental Concerns

Consider wildlife and other environmental concerns, especially federally threatened or endangered species and critical habitat, when establishing protective measures.

I Practice Maintenance

The practice must be maintained without additional C/S for the life of CRP-1. C/S must be refunded according to paragraph 571 if either of the following applies:

- producer destroys the practice during the life of CRP-1
- failure is **not** caused by circumstances beyond the producer's control.

J Management Activity

The practice has no required management activities as required in paragraph 428.

K Program Development

Follow this subparagraph to develop the county program.

- County programs must provide the requirements that are conditions for C/S.
- STC may establish these requirements.

J Technical Responsibility

Technical responsibility for this practice is assigned to NRCS or TSP.

APPENDIX B
Agency, Tribal, and Public Coordination

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B.1 INTRODUCTION

Scoping is an early and open process for developing the breadth of issues to be addressed in an Environmental Assessment (EA) and for identifying significant concerns related to an action. Per the requirements of Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416, federal, state, and local agencies with jurisdiction that could potentially be affected by the Proposed Action or alternatives were notified during the development of this SPEA.

The Intergovernmental Coordination Act and EO 12372 require federal agencies to cooperate with and consider state and local views in implementing a federal proposal. Through the coordination process, the Farm Service Agency contacted potentially interested and affected government agencies, government representatives, elected officials, and interested parties potentially affected by the Proposed Action. The agency and intergovernmental coordination process is summarized in this Appendix.

B.1.1 Government-to-Government Consultation

The National Historic Preservation Act (NHPA) and its regulations in 36 CFR Part 800 direct federal agencies to consult with federally recognized Indian tribes when a proposed or alternative action has the potential to affect tribal lands or properties of religious and cultural significance to a tribe. Consistent with the NHPA, federally recognized tribes that are historically affiliated with lands in the vicinity of the Proposed Action have been invited to consult on all proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. Interested Tribes were sent two letters – the notification letter requested feedback on the Area of Potential Effects (APE) and the consultation letter requested review and comments on the Draft SPEA. The Tribal Consultation Mailing List can be found in **Section B.3**. Any responses received from Tribes are summarized in **Section B.7**.

B.1.2 Agency Consultations

Development of the SPEA involved coordination with several organizations and agencies. Correspondence sent to the U.S. Fish and Wildlife Service can be found in **Section B.4**. The sample letter for Other Interested Parties can be found in **Section B.5**. The Other Interested Parties mailing list can be found in **Section B.6**. Agency responses received are summarized in **Section B.7**.

B.2 PUBLIC REVIEW OF PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

A Notice of Availability of the Draft SPEA was published in the *Lyman County Herald* and the *Winner Advocate* inviting the public to review and comment on the Draft SPEA during a 30-day review period.

The Draft SPEA is available for review on the FSA website at https://www.fsa.usda.gov/state-offices/South-Dakota/resources/index and in person at the South Dakota State FSA Office at 200 Fourth St. SW, Room 308, Huron, SD 57350 from August 18, 2023, to September 18, 2023.

B.3 TRIBAL CONSULTATION MAILING LIST

- Apache Tribe of Oklahoma
- Cheyenne and Arapaho Tribes, Oklahoma
- Cheyenne River Sioux Tribe
- Crow Creek Sioux Tribe
- Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
- Lower Brule Sioux Tribe
- Oglala Sioux Tribe
- Rosebud Sioux Tribe
- Santee Sioux Nation, Nebraska
- Standing Rock Sioux Tribe of North & South Dakota

B.4 U.S. FISH AND WILDLIFE SERVICE CORRESPONDENCE

United States Department of Agriculture
Farm Production and Conservation
Farm Service Agency
SD State FSA Office
200 4th St. SW Fed Bldg., Room 308
Huron, SD 57350
PH: 605-352-1160
Fax: 855-243-6003

July 24, 2023

U.S. Fish and Wildlife Service
Attn.: Amity Bass
North and South Dakota Ecological Services Project Leader
420 South Garfield Avenue, Suite 400
Pierre, South Dakota 57501

Subject: Rosebud Sioux Tribe Conservation Reserve Enhancement Program (CREP) Amendment Project

Dear Ms. Bass:

The United States Department of Agriculture (USDA) Commodity Credit Corporation (CCC), in cooperation with the Rosebud Sioux Tribe, proposes to implement an amendment to the Rosebud Sioux Tribe CREP Agreement signed in October 2022. The proposed amendment would expand the current project area to allow enrollment of eligible land physically located in South Dakota. The USDA Farm Service Agency (FSA) administers the CREP program on behalf of the CCC. USDA is preparing a Supplemental Programmatic Environmental Assessment (SPEA) to evaluate implementation of the proposed amendment to the Rosebud Sioux Tribe CREP Agreement. The SPEA is being prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508, as amended), and 7 CFR Part 799, *FSA Implementing Regulations for NEPA*. The USDA CCC would administer the proposed amendment of the Rosebud Sioux Tribe CREP within South Dakota.

CREP is a program authorized under provisions of the Food Security Act of 1985, as amended (1985 Act) (16 United States Code [U.S.C.] §3831 et seq.) and the regulations at 7 CFR Part 1410. In exchange for removing environmentally sensitive land from production and establishing a permanent resource conserving plant species, farmers and ranchers are paid an annual rental rate along with other federal and non-federal incentives as specified in each CREP agreement. Participation is voluntary, and the contract period is typically 10 to 15 years.

The project area for the proposed amendment to the Rosebud Sioux Tribe CREP Agreement consists of eligible land physically located in Gregory, Lyman, Mellette, Todd, and Tripp Counties in South Dakota (**Attachment 1**). For land to be enrolled in the CREP, it must have an existing grass cover at the time it is offered for enrollment and meet all eligibility criteria to be enrolled in the Conservation Reserve Program (CRP) as grassland cropland. Land eligible for grassland CRP is land on a tract, or a portion of a tract, which contains forbs or shrubland (including improved rangeland and improve pastureland) for which grazing is the predominant use. Grassland with less than 5 percent tree canopy interspersed through the offered acreage is eligible. Any land enrolled in the CRP would install conservation practice CP88, Permanent Native Grasses, Forbs, or

July 25, 2023

Legumes. Areas in Gregory, Lyman, Mellette, Todd, and Tripp Counties in South Dakota shown on **Attachment 1** are eligible to participate.

The proposed amendment of the Rosebud Sioux Tribe CREP Agreement would include:

1. Enrollment of up to 900,000 acres to maintain, improve, and protect grassland productivity through rotational grazing and water development.
2. Increasing the average carrying capacity, animal units per acre, on land enrolled in the CRP through this Amendment.
3. Reducing erosion in riparian areas along water bodies through rotational grazing and cover enhancements.
4. Increasing the average number of native threatened, endangered, or other targeted species through the restoration and establishment of wildlife habitat.

Pursuant to Section 7 of the Endangered Species Act, the USDA Natural Resources Conservation Service (NRCS) entered into a Programmatic Consultation (USDA 2016) with USFWS that covers all NRCS conservation practices in South Dakota. The Programmatic Consultation states that areas with certain listed species require Conditions for Implementing Conservation Practices (CICP). Once the CICP is applied to the practice, the practice impacts have been minimized to a level where the listed species are not likely to be adversely affected. Within the Programmatic Consultation, procedures for addressing the CRP are also addressed. South Dakota FSA requires that all CRP practices be planned using CICPs, consistent with the Programmatic Consultation. Prior to enrolling any specific land in the CREP, an NRCS conservation plan must be developed using the procedures set forth in the Programmatic Consultation. The conservation plan developed would include the appropriate site-specific CICPs. Information on the potential presence of listed, proposed, and candidate species or designated or proposed critical habitat would be obtained from the U.S. Fish and Wildlife Service Environmental Conservation Online System, Information for Planning and Consultation when the site-specific conservation plan is developed.

We request concurrence that this action (implementing the proposed amendment to the Rosebud Sioux Tribe CREP Agreement signed October 2022) will have no effect on listed species under USFWS jurisdiction, as defined under Section 7 of the Endangered Species Act. Any site-specific impacts that may occur as a result of individual CREP offers will be addressed during the conservation planning process. Through the use of CICPs and the procedures set forth in the Programmatic Consultation, it is expected that localized impacts will be minimized. Additionally, we request any additional information or any comments that may be beneficial in the development of the SPEA. We appreciate your review of this material and comments on any issues that would be of concern to your office.

July 25, 2023

We intend to provide you with access to the Draft SPEA when the document is available for public and agency review. Please inform us if someone else within your agency other than you should be notified of the availability of the Draft SPEA through publication of the Notice of Availability. Please provide your responses and any questions to Steven Littlefield at (605) 352-1183 or by email at steven.littlefield@usda.gov. Thank you in advance for your assistance in this effort.

Sincerely,

Steve Dick
USDA Farm Service Agency
State Executive Director

Attachments:

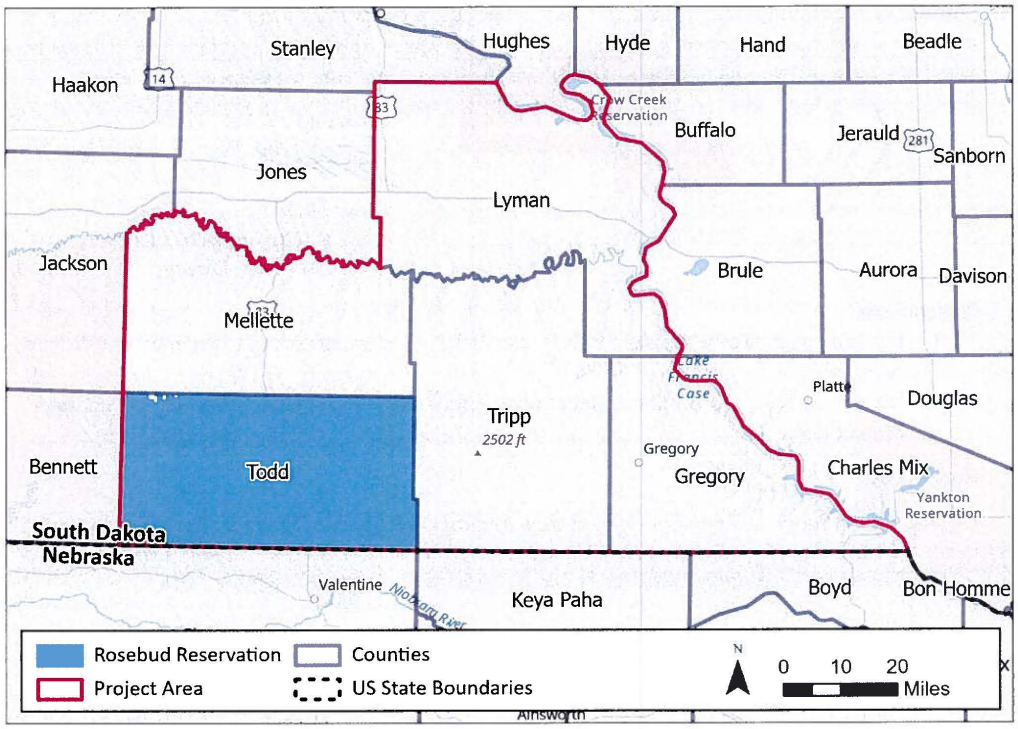
1. Location Map for the Oglala Sioux Tribe CREP Agreement proposed amendment Project Area
2. Official Species List for the Oglala Sioux Tribe CREP Agreement proposed amendment Project Area

References:

USDA. 2016. *South Dakota Threatened and Endangered Species Programmatic Consultation (Programmatic Biological Assessment and Procedures) for South Dakota NRCS Conservation Practice Standards and Specification*. Signed December 2016.

July 25, 2023

Attachment 1: Location Map for the proposed amendment to the Rosebud Sioux Tribe CREP Agreement



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
Phone: (605) 224-8693 Fax: (605) 224-1416

In Reply Refer To:
Project Code: 2023-0107167
Project Name: Rosebud Tribal CREP SPEA

July 20, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/media/endangered-species-consultation-handbook

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/law/bald-and-golden-eagle-protection-act, https://www.fws.gov/media/endangered-species-act-1, and/or https://www.fws.gov/law/migratory-bird-treaty-act-1918.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/law/migratory-birds

Please be aware that bald and golden eagles are protected under the Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, as amended), as well as the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may benefit from the development of an Eagle Conservation Plan (ECP), see guidance at this website (https://www.fws.gov/node/266177). An ECP can assist developers in achieving compliance with regulatory requirements, help avoid “take” of eagles at project sites, and provide biological support for eagle permit applications. Additionally, we recommend wind energy

developments adhere to our Land-based Wind Energy Guidelines for minimizing impacts to migratory birds and bats.
We have recently updated our guidelines for minimizing impacts to migratory birds at projects that have communication towers (including meteorological, cellular, digital television, radio, and emergency broadcast towers). These guidelines can be found at:

https://www.fws.gov/story/incidental-take-beneficial-practices-communication-towers
http://www.towerkill.com

According to National Wetlands Inventory maps, (available online at https://www.fws.gov/library/collections/national-wetland-inventory) wetlands exist adjacent to the proposed construction corridor. If a project may impact wetlands or other important fish and wildlife habitats, the U.S. Fish and Wildlife Service (Service), in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) and other environmental laws and rules, recommends complete avoidance of these areas, if possible. If this is not possible, attempts should be made to minimize adverse impacts. Finally if adverse impacts are unavoidable, measures should be undertaken to replace the impacted areas. Alternatives should be examined and the least damaging practical alternative selected. If wetland impacts are unavoidable, a mitigation plan addressing the number and types of wetland acres to be impacted, and the methods of replacement should be prepared and submitted to the resource agencies for review.

Please check with your local wetland management district to determine whether Service interest lands exist at the proposed project site, the exact locations of these properties, and any additional restrictions that may apply regarding these sites. The Offices are listed below. If you are not sure which office to contact, we can help you make that decision.

U.S. Fish and Wildlife Service, Huron Wetland Management District, Federal Building, Room 309, 200 4th Street SW, Huron, SD 57350; telephone (605) 352-5894. Counties in the Huron WMD: Beadle, Buffalo, Hand, Hughes, Hyde, Jerauld, Sanborn, Sully.

U.S. Fish and Wildlife Service, Lake Andes Wetland Management District, P O Box 18, Pickstown, South Dakota, 57367; telephone (605) 487-7603. Counties in the Lake Andes WMD: Aurora, Brule, Charles Mix, Davison, Douglas.

U.S. Fish and Wildlife Service, Madison Wetland Management District, P.O. Box 48, Madison, South Dakota, 57042, telephone (605) 256-2974. Counties in the Madison WMD: Bon Homme, Brookings, Clay, Deuel, Hamlin, Hanson, Hutchinson, Kingsbury, Lake, Lincoln, McCook, Miner, Minnehaha, Moody, Turner, Union, Yankton.

U.S. Fish and Wildlife Service, Sand Lake Wetland Management District, 39650 Sand Lake Drive, Columbia, South Dakota, 57433; telephone (605) 885-6320. Counties in the Sand Lake WMD: Brown, Campbell, Edmunds, Faulk, McPherson, Potter, Spink, Walworth.

U.S. Fish and Wildlife Service, Waubay Wetland Management District, 44401 134A Street, Waubay, South Dakota, 57273; telephone (605) 947-4521. Counties in the Waubay WMD: Clark, Codington, Day,

Grant, Marshall, Roberts.

You are welcome to visit our website (https//www.fws.gov/office/southdakota-ecological-services) or to contact our office/staff at the address or phone number above for more information.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Dakota Ecological Services Field Office
420 South Garfield Avenue, Suite 400
Pierre, SD 57501-5408
(605) 224-8693

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Nebraska Ecological Services Field Office
9325 B South Alda Rd., Ste B
Wood River, NE 68883-9565
(308) 382-6468

PROJECT SUMMARY

Project Code: 2023-0107167
Project Name: Rosebud Tribal CREP SPEA
Project Type: Restoration / Enhancement - Grassland
Project Description: Tribal nation is entering into CREP agreement with USDA FSA to enroll eligible grassland, pastureland, and other agricultural lands within the boundaries of their reservations in the program.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.6007312,-100.28785315076843,14z

Counties: Nebraska and South Dakota

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Black-footed Ferret *Mustela nigripes* Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6953	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

FISHES

NAME	STATUS
Pallid Sturgeon *Scaphirhynchus albus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7162	Endangered

INSECTS

NAME	STATUS
American Burying Beetle *Nicrophorus americanus* Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/66	Threatened
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Western Prairie Fringed Orchid *Platanthera praeclara* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1669	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Piping Plover *Charadrius melodus* https://ecos.fws.gov/ecp/species/6039#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
FARM SERVICE AGENCY INTEREST OF SD https://www.fws.gov/refuges/profiles/index.cfm?id=64550	1,866.665
LACREEK NATIONAL WILDLIFE REFUGE https://www.fws.gov/refuges/profiles/index.cfm?id=64540	0

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Chestnut-collared Longspur *Calcarius ornatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 10
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Ferruginous Hawk *Buteo regalis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6038	Breeds Mar 15 to Aug 15
Franklin's Gull *Leucophaeus pipixcan* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

NAME	BREEDING SEASON
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Hudsonian Godwit *Limosa haemastica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Lark Bunting *Calamospiza melanocorys* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-billed Curlew *Numenius americanus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Prairie Falcon *Falco mexicanus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4736	Breeds Mar 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

NAME	BREEDING SEASON
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

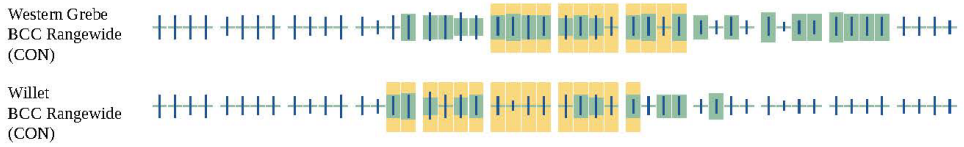
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.


Eastern Whip-poor-will BCC Rangewide (CON)
Ferruginous Hawk BCC - BCR
Franklin's Gull BCC Rangewide (CON)
SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Golden Eagle Non-BCC Vulnerable
Henslow's Sparrow BCC Rangewide (CON)
Hudsonian Godwit BCC Rangewide (CON)
Lark Bunting BCC - BCR
Lesser Yellowlegs BCC Rangewide (CON)
Long-billed Curlew BCC - BCR
Long-eared Owl BCC Rangewide (CON)
Marbled Godwit BCC Rangewide (CON)
Prairie Falcon BCC - BCR
Red-headed Woodpecker BCC Rangewide (CON)
Ruddy Turnstone BCC - BCR
Short-billed Dowitcher BCC Rangewide (CON)
SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

Due to your project's size, the list below may be incomplete, or the acreages reported may be inaccurate. For a full list, please contact the local U.S. Fish and Wildlife office or visit https://www.fws.gov/wetlands/data/mapper.HTML

FRESHWATER EMERGENT WETLAND

- PEM1E
- PEM1Ad
- PEM1/FOA
- PEM1Ah
- PEM1Cx
- PEM1C
- PEM1Ch
- PEM1/FOCh
- PEM1Ax
- PEM1Cd
- PEM1Fh
- PEM1F
- PEM1A
- PEM1B

FRESHWATER FORESTED/SHRUB WETLAND

- PSSAh
- PFOA
- PFOAh
- PFOCh
- PFOAx
- PFOC
- PFO/EM1C
- PFO/EM1Ch

RIVERINE

- R5UBH
- R4SBC
- R2USC
- R4SBA

FRESHWATER POND

- PUBFx
- PABFx
- PUSCh
- PABGh
- PABFh
- PUSA

LAKE

- L2USCh

IPAC USER CONTACT INFORMATION

Agency: Versar Inc.
Name: Kenneth Erwin
Address: [redacted]
Address Line 2:
City:
State:
Zip:
Email
Phone:

B.5 SAMPLE OTHER INTERESTED PARTIES LETTER

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Farm Production and Conservation
Farm Service Agency
SD State FSA Office
200 4th St. SW Fed Bldg., Room 308
Huron, SD 57350
PH: 605-352-1160
Fax: 855-243-6003

August 4, 2023

«First_Name» «Last_Name»
«Title»
«Organization»
«Street_Address»
«City», «State» «ZipCode»

Subject: Availability of the Draft Supplemental Programmatic Environmental Assessment for the Proposed Amendment to the Rosebud Sioux Tribe Conservation Reserve Enhancement Program (CREP) Agreement for Public Review

Dear First Name Last Name,

The United States Department of Agriculture (USDA) Farm Service Agency (FSA) has prepared a Draft Supplemental Programmatic Environmental Assessment (SPEA) for the proposed amendment to the Rosebud Sioux Tribe CREP Agreement signed in October 2022. The SPEA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing the National Environmental Policy Act, and 7 Code of Federal Regulations (CFR) Part 799, FSA Implementing Regulations for NEPA.

CREP is a program authorized under provisions of the Food Security Act of 1985, as amended (1985 Act) (16 U.S.C. § 3831 et. seq.), and the regulations at 7 CFR Part 1410. Under the CREP Agreement, agricultural producers would voluntarily enter into contracts with the federal government for 10 to 15 years, agreeing to maintain an existing vegetative cover of Conservation Practice CP88, Permanent Grasses and Legumes, while retaining the right to conduct common grazing practices and operations related to the production of forage and seeding. The purpose of the CREP is to reduce agricultural environmental impacts on Tribal lands primarily through the use of rotational grazing and livestock water source development.

For land to be enrolled in the CREP, it must be located within the reservation or Tribal lands in Gregory, Lyman, Mellette, Tripp, or Todd Counties in South Dakota (see Attachment 1), have an existing grass cover that is suitable for haying or grazing at the time it is offered for enrollment, and meet all eligibility criteria to be enrolled in the Conservation Reserve Program as grassland. Under the proposed amendment, up to 900,000 acres of land would be enrolled in the Rosebud Sioux Tribe CREP. Eligible land offered for CREP would enroll in CP88; the purpose of the CP88 practice is to maintain existing vegetative cover of either introduced or native grasses and legumes. Agricultural producers would be eligible for annual rental payments for the duration of the contract, and USDA would provide cost-share payments to eligible participants for up to 50 percent of the eligible reimbursable costs incurred for installing permanent fencing and livestock watering facilities needed to facilitate livestock grazing.

August 4, 2023

The proposed project would include:

1. Enrollment of up to 900,000 acres to maintain, improve, and protect grassland productivity through rotational grazing and water development;
2. Increasing the average carrying capacity (animal units per acre) on land enrolled in the Conservation Reserve Program (CRP) through this CREP; and
3. Reducing erosion in riparian areas along water bodies through rotational grazing and cover enhancements.

We appreciate your review of this material and any comments on issues that would be of concern to your office. The Draft SPEA is available at https://www.fsa.usda.gov/state-offices/South-Dakota/resources/index. The public will also be notified of the availability of the Draft SPEA through the publication of a Notice of Availability in two local news publications, the *Lyman County Herald* and the *Winner Advocate*. Please provide your comments within 30 days of receiving this letter by phone at (605) 352-1183 or by email at steven.littlefield@usda.gov.

Sincerely,

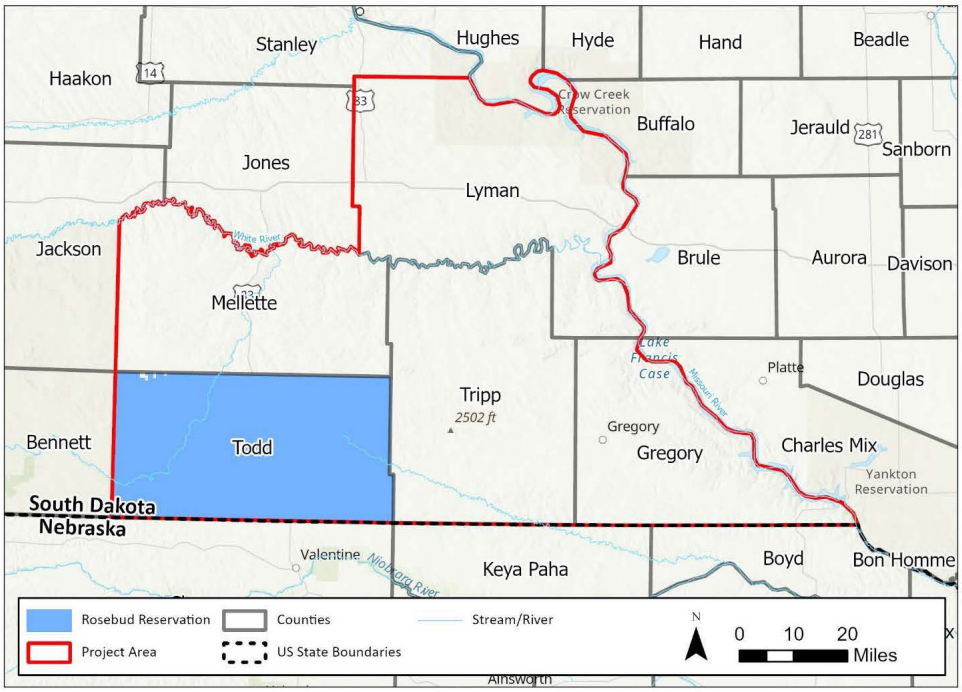
Steven Littlefield
USDA Farm Service Agency
State Environmental Coordinator

Attachment:

1. Project Area for the proposed amendment to the Rosebud Sioux Tribe CREP Agreement

August 4, 2023

Attachment 1: Project Area for the proposed amendment to the Rosebud Sioux Tribe CREP Agreement



B.6 OTHER INTERESTED PARTIES MAILING LIST

- Kurt Forman, Project Leader SD Partners for Fish & Wildlife Program, U.S. Fish and Wildlife Service
- Timothy LaPointe, Regional Director, Bureau of Indian Affairs Great Plains Regional Office
- Bill Smith, Director, South Dakota Department of Agriculture and Natural Resources
- Tony Sunseri, State Conservationist, South Dakota Natural Resources Conservation Service

B.7 SUMMARY OF RESPONSES RECEIVED

Table B-1. Summary of Responses Received

Date	Commenter Name	Commenter Organization/Title	Summary of Comments
8/11/2023	Jenna Carlson Dietmeier	South Dakota Interim State Historic Preservation Officer	Currently, SHPO believes that the proposed undertaking has a high potential to have adverse effects on cultural resources and historic properties within the Area of Potential Effect (APE). The SHPO Review and Compliance Staff will be available for consultation once site-specific projects are brought before our office for official review. The Rosebud Sioux Tribal Historic Preservation Office should be contacted on Rosebud Sioux Tribal Land. The LBST [Lower Brule Sioux Tribe] Tribal Cultural Resources Office should be contacted regarding any proposed undertakings within the reservation boundaries and lands administered by the Tribe.

APPENDIX C
Programmatic Biological Assessment for the South Dakota NRCS Conservation Practice Standards and Specifications

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C.1 INTRODUCTION

In 2016, the US Fish and Wildlife Service concurred with the determinations of "No Effect" and "May Affect but Not Likely to Adversely Affect" in a Programmatic Biological Assessment (BA) for implementing Natural Resources Conservation Service (NRCS) Conservation Practices throughout South Dakota prepared by the US Department of Agriculture. The Programmatic BA can be accessed at the following link: https://efotg.sc.egov.usda.gov/references/public/SD/Programmatic_Biological_Assessment.pdf.

The next section below includes an excerpt of the Programmatic BA that applies to federally listed and candidate species compliance for NRCS actions associated with the Conservation Reserve Program (CRP).

C.2 CONSERVATION RESERVE PROGRAM STEPS EXCERPT

CONSERVATION RESERVE PROGRAM (CRP) STEPS:

The Farm Service Agency (FSA) issued SD Amendment 1 (dated November 19, 2010), to the CRP Manual (2-CRP Revision 5). Specifically, Part 11 Paragraph 367 F provides the guidance the FSA will use when implementing conservation plans and NEPA documentation provided by the NRCS. Future versions of the 2-CRP Manual and future amendments are anticipated to follow this guidance.

"FSA will not implement a practice that deviates from existing NRCS Conditions for Implementing Conservation Practices (CICPs) which have been previously coordinated with USFWS. The conservation plan developed by NRCS to implement the conservation practice [or action] will include the appropriate CICPs."

Based on the language agreed to above by both agencies, the SD NRCS will FOLLOW THE PREVIOUS STEPS (1-6) OF THESE INSTRUCTIONS WITH THE FOLLOWING **EXCEPTIONS STATED IN BOLD TYPE:**

STEPS 1 & 2:
Identify your planning area, your area of potential effect, and your county.
*NO EXCEPTIONS TO THE STANDARD PROCEDURES ARE ALLOWED.
Identify all candidate and federally listed species in your county.

STEP 3:
***USE OF THE NRCS-CPA-52 ENDANGERED AND THREATENED SPECIES HELP SHEET IS REQUIRED.**

***WHOOPING CRANE and RUFA RED KNOT NOTE: The following language will be placed in the Federal Species Notes block on the Endangered and Threatened Help Sheet –**
"For ALL conservation practices or actions, occasional and/or transient endangered species may visit the project site or site vicinity. If any endangered species visits the site or vicinity of the site then the client (program participant) or anyone conducting work for the client (program participant) must stop work immediately and contact the local NRCS office. The local NRCS office will determine when the work may continue based on the species present, the species location, and coordination with an NRCS biologist as appropriate."

STEP 4:
Utilize the "Procedures" matrices to identify the likely affect **FOR ALL APPLICABLE SPECIES**.
1. **Record the effect determinations in Help Sheet.**
2. **Check the "Needs further Action" box in the Endangered and Threatened Species portion of Section J of the NRCS-CPA-52.**

STEP 5:
Record the Conditions for Implementing the Conservation Practice/Action (CICP).
1. **Record the CICP effect determination on the Help Sheet. Print the applicable CICPs, review them with client, and if the client agrees to the CICPs, then provide a copy to the client and the FSA. Instruct the client to work with the FSA to complete a landowner/client agreement to the CICPs prior to conservation planning being completed.**

2. **If the landowner does not wish to comply with the listed CICPs OR if the landowner refuses to select a different alternative then cease planning.**

STEP 6:
Finalize Section J of the NRCS-CPA-52.
Due to the Whooping Crane and Rufa Red Knot potentially occurring in all counties, the NRCS will, in all cases, check the "Needs Further Action" box. Provide a photocopy of the NRCS-CPA-52 to the FSA. Follow-up with the FSA once resolution is achieved. Properly document the resolution on the NRCS-CPA-52 in the case file.

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APPENDIX D
Detailed Soil Information

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Table D-1. Soil Associations for the Rosebud Sioux Tribe CREP Amendment Project Area

County	Soil Association	Description
Rosebud Indian Reservation (Todd County)	Alluvial land-Haverson	Nearly level, deep soils that are sandy to clayey but mainly loamy; on floodplains
	Badlands	Barren badlands intermingled with clayey and loamy soils on mesas, escarpments, buttes, and tablelands and in basins
	Bankard	Nearly level, well-drained to somewhat excessively drained, deep, sandy soils on floodplains
	Kadoka-Epping	Gently sloping to hilly, well-drained to somewhat excessively drained, silty soils that are moderately deep to shallow over bedded silt and siltstone; on uplands
	Keith-Colby	Gently sloping to rolling, well-drained to somewhat excessively drained, deep, silty soils on uplands
	Keith-Rosebud	Nearly level to gently sloping, well-drained, silty and loamy soils that are deep to moderately deep over soft sandstone; on uplands
	Minatare-Loup	Nearly level, poorly drained, deep, loamy soils in stream valleys and basins
	Oglala-Canyon	Rolling to hilly, well-drained to somewhat excessively drained, loamy soils that are deep to shallow over soft sandstone; on uplands
	Penrose-Minnequa	Rolling or sloping, somewhat excessively drained to well-drained, silty soils that are shallow to moderately deep over chalky shale; on uplands
	Pierre-Samsil	Gently sloping to rolling, well-drained to excessively drained, clayey soils that are moderately deep to shallow over shale; on uplands
Gregory County	Agar	Deep, well drained, nearly level and gently sloping, silty soils on uplands
	Anselmo-Holt-Tassel	Deep to shallow, well drained, nearly level to steep, loamy soils on uplands
	Jansen	Well drained, nearly level to moderately sloping, loamy soils that are moderately deep over sand; on uplands
	Labu Promise	Moderately deep and deep, well drained, moderately sloping and strongly sloping, clayey soils on uplands
	Labu-Sansarc	Moderately deep and shallow, well drained, strongly sloping to very steep, clayey soils on uplands
	Meadin-Jansen	Excessively drained and well drained, gently sloping to moderately steep, loamy soils that are shallow or moderately deep over sand and gravel; on uplands
	Milboro-Boro	Deep, well drained, nearly level to strongly sloping, clayey soils on uplands
	Okaton-Mariaville	Shallow, well drained, moderately steep to very steep, clayey and loamy soils on uplands
	Promise	Deep, well drained, nearly level and gently sloping, clayey soils on uplands
	Ree	Deep, well drained, nearly level to moderately sloping, loamy soils on uplands
	Reliance	Deep, well drained, nearly level to strongly sloping, silty soils on uplands
	Wendte-Hayne-Variant	Deep, moderately well drained, and well drained, nearly level, clayey and loamy soils on the flood plains along the Missouri River

Table D-1. Soil Associations for the Rosebud Sioux Tribe CREP Amendment Project Area

County	Soil Association	Description
Lyman County	Agar-McClure	Deep, well drained, nearly level to moderately sloping, silty soils formed in loess and in a thin mantle of loess over clayey material
	Lakoma-Okaton	Moderately deep and shallow, well drained, gently sloping to steep, clayey soils formed in clayey shale residuum
	Lakoma-Okaton-Reliance	Deep to shallow, well drained, nearly level to very steep clayey and silty soils formed in clayey shale residuum and in loess
	Lowry	Deep, well drained, nearly level to strongly sloping, silty soils formed in loess
	Milboro	Deep, well drained, nearly level to moderately sloping, clayey soils formed in clayey material
	Milboro-McClure	Deep, well drained, nearly level to moderately sloping, silty soils formed in clayey material and in a thin mantle of loess over clayey material
	Munjor-Hilmoe-Bigbend	Deep, well drained and moderately well drained, nearly level, loamy, silty, and clayey soils formed in alluvium
	Opal-Sansarc	Moderately deep and shallow, well drained, nearly level to steep, clayey soils formed in clayey shale residuum
	Sansarc-Opal	Shallow and moderately deep, well drained, moderately sloping to steep, clayey soils formed in clayey shale residuum
	Wendt-Bullcreek	Deep, moderately well drained, nearly level and gently sloping, clayey soils formed in alluvium
Mellette County	Epping-Huggins-Implay	Shallow to moderately deep, sloping to steep, well drained to excessively drained silty and loamy soils
	Haverson-Glenberg	Deep, nearly level to gently sloping, moderately well drained and well drained silty and loamy soils
	Huggins-Kadoka	Moderately deep, nearly level to strongly sloping, well drained silty soils
	Imlay-Conato-Badland	Shallow, gently sloping to steep, well-drained to excessively drained loamy and clayey soils and areas of Bad-land
	Norrest	Moderately deep, nearly level to strongly sloping, well drained silty soils
	Opal-Promise	Shallow to deep, nearly level to strongly sloping, moder-ately well draine1 and well drained clayey soils
	Promise-Millboro	Deep, nearly level to gently sloping, well-drained clayey soils
	Ree	See description above.
	Samsil-Lakoma	Shallow and moderately deep, strongly sloping to steep, well-drained to excessively drained clayey soils
	Savo	Deep, nearly level to gently sloping, well-drained silty soils
	Tuthill-Manter	Deep, nearly level to sloping or undulating, well-drained loamy soils
Tripp County	Anselmo-Holt	Deep and moderately deep, nearly level to moderately steep, well drained, loamy soils
	Anselmo-Ronson	Deep and moderately deep, nearly level to strongly sloping, well drained, loamy soils
	Anselmo-Tassel-Valentine	Deep and shallow, nearly level to steep, well drained and excessively drained, loamy and sandy soils

Table D-1. Soil Associations for the Rosebud Sioux Tribe CREP Amendment Project Area

County	Soil Association	Description
Tripp County *(continued)*	Anselmo-Valentine	Deep, nearly level to rolling, well drained and excessively drained, loamy and sandy soils
	Doger-Elsmere	Deep, nearly level to undulating, well drained and somewhat poorly drained, sandy, and loamy soils
	Haverson-Munjor	Deep, nearly level, well drained, loamy soils
	Invale-Cass	Deep, nearly level, somewhat excessively drained and well drained, sandy and loamy soils
	Manter-Rosebud	Deep and moderately deep, nearly level to strongly sloping, well drained, loamy and silty soils
	Milboro-Lakoma	Deep and moderately deep, nearly level to strongly sloping, well drained, clayey soils
	Okaton-Manter	Shallow and deep, nearly level to very steep, well drained, clayey and loamy soils
	Okaton-Rock	Shallow, moderately steep to very steep, well drained, clayey soils, and Rock outcrop
	Ree-Murdo	Nearly level to strongly sloping, well drained, loamy soils that are deep and shallow over gravelly sand
	Reliance	See description above.
	Sansarc-Opal	See description above.

References

U.S. Department of Agriculture (USDA) Soil Conservation Service, US Department of the Interior Bureau of Indian Affairs in cooperation with South Dakota Agricultural Extension Office. 1975. *Soil Survey of Mellette County, South Dakota*. 3-7 p.

USDA Soil Conservation Service, US Department of the Interior Bureau of Indian Affairs in cooperation with South Dakota Agricultural Extension Office. 1979. *Soil Survey of Tripp County, South Dakota*. 3-11 p.

USDA Soil Conservation Service. 1984. *Soil Survey of Gregory County, South Dakota*. 5-13 p.

USDA Soil Conservation Service. 1987. *Soil Survey of Lyman County, South Dakota*. 5-10 p.

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APPENDIX E
Detailed Regional Production Expenses, Agricultural Sales, and Other Farm Related Income

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Table E-1. 2017 Detailed Regional Production Expenses, Agricultural Sales, and Other Farm Related Income

County	Number of Farms	Farmland Area (acres)			Farm Production Expenses (dollars)			Total Agricultural Sales (dollars)			Farm Related Income (dollars)		
		Land in Farms	Land in Buildings, Roads, etc.	Production Acres (1)	Avg Prod Expenses Per Farm	Total Expenses	Expenses / Acre (2)	Avg Ag Sales Per Farm (dollars)	Total Sales (dollars)	Sales / Acre (3)	Avg Farm Related Income Per Farm	Total Farm Related Income	Farm Related Income / Acre
Gregory	495	562085	20560	541525	$152,026.00	$75,253,000.00	$138.96	$188,005.00	$93,063,000.00	$171.85	$19,585.00	$6,757,000.00	$12.48
Lyman	414	950795	25725	925070	$219,375.00	$90,821,000.00	$98.18	$234,401.00	$97,042,000.00	$104.90	$32,034.00	$8,777,000.00	$9.49
Mellette	219	752566	5970	746596	$162,142.00	$35,509,000.00	$47.56	$207,408.00	$45,422,000.00	$60.84	$19,146.00	$2,757,000.00	$3.69
Tripp	648	1036646	22414	1014232	$277,168.00	$179,605,000.00	$177.08	$312,626.00	$202,582,000.00	$199.74	$36,384.00	$15,136,000.00	$14.92
Todd	223	880043	10451	869592	$222,185.00	$49,547,000.00	$56.98	$240,621.00	$53,659,000.00	$61.71	$52,273.00	$7,388,000.00	$8.50
Total	**1999**	**4182135**	**85120**	**4097015**	**$206,579.20**	**$430,735,000.00**	**$105.13**	**$236,612.20**	**$491,768,000.00**	**$120.03**	**$31,884.40**	**$40,815,000.00**	**$9.96**

Source: National Agricultural Statistics Service (NASS). 2017.
1. Calculated by subtracting Land in Buildings, Roads, etc. from Land in Farms.
2. Calculated by dividing Production Acres by Total Expenses.
3. Calculated by dividing Total Sales by Production Acres.

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APPENDIX F
List of Preparers and Contributors

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CREP = Conservation Reserve Enhancement Program; SD FSA = South Dakota Farm Service Agency; USDA = United States Department of Agriculture