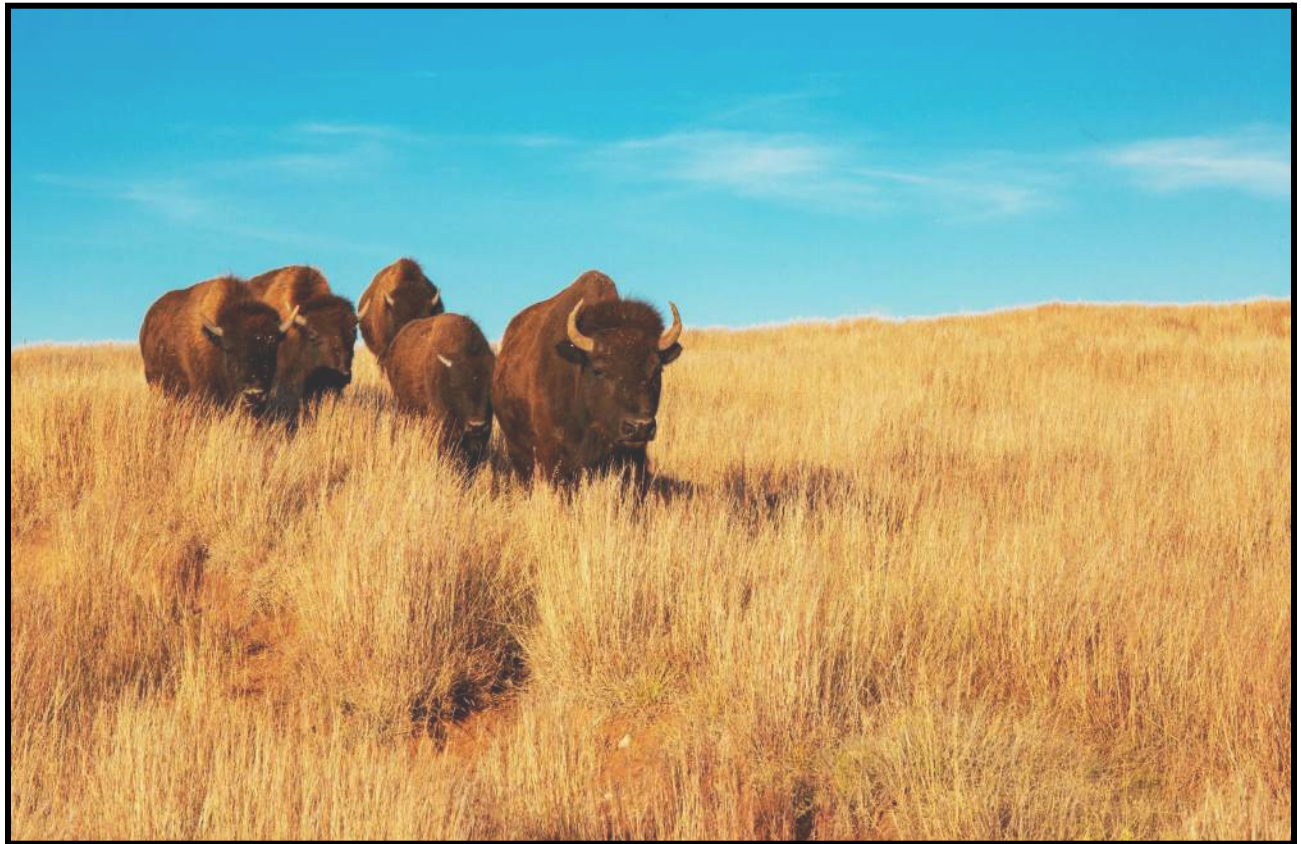


Plan Vivo Project Idea Note

Lower Brule Sioux Tribe Grassland Conservation Project

Lower Brule Indian Reservation, South Dakota, United States



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Lower Brule Sioux Tribe

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Summary Information

Project Title	Lower Brule Sioux Tribe Grassland Conservation Project
Project Location – Country/Region/District	Lower Brule Indian Reservation (LBIR), South Dakota, USA
Project Coordinator & Contact Details	Sheldon Fletcher Lower Brule Sioux Tribe Environmental Protection Office P.O. Box 187 Oyate Circle Lower Brule, SD 57548 Phone: 605-473-0163 sheldoncfletcher@gmail.com
Summary of Proposed Activities	Project supports a grassland conservation program to: 1) enhance native wildlife populations through prairie habitat restoration, conservation, and avoided conversion to agriculture, 2) provide tribal subsistence hunting and gathering opportunities, and 3) enhance carbon sequestration.
Summary of Proposed Target Groups	Members of the Lower Brule Sioux Tribe

Part A: Project Aims & Objectives

A1 Describe the project's aims and objectives

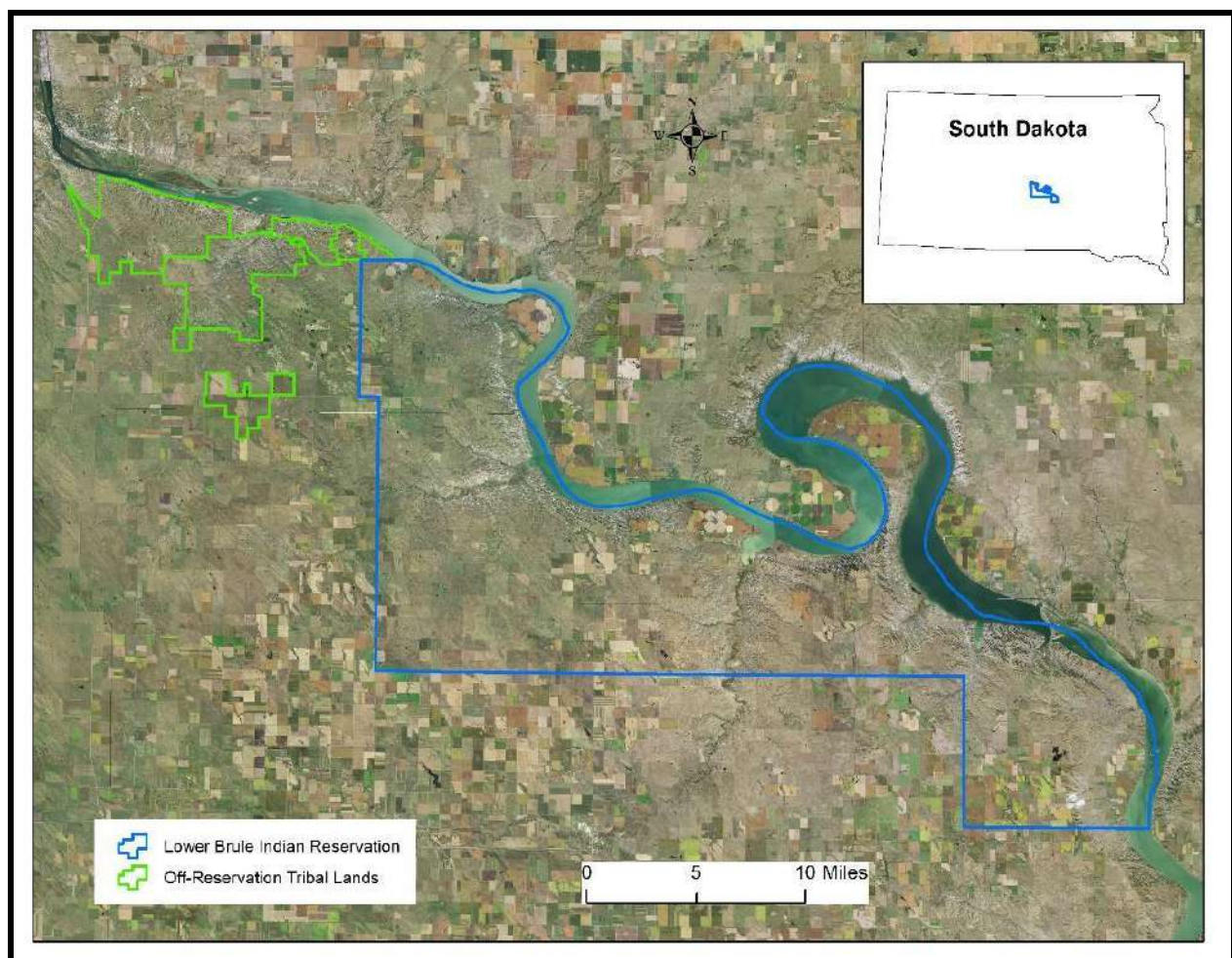
The problem(s) the project will address

Native grasslands and associated wetlands that occur on the Lower Brule Indian Reservation (LBIR) are highly vulnerable to conversion to intensive row-crop tillage agriculture such as corn, soybean, and wheat, which dominates the surrounding region. Conversion of these rare ecosystems negatively impacts wildlife habitat and plants that are gathered by tribal members, increases runoff and soil erosion, and reduces the land's ability to sequester greenhouse gasses (GHGs). The objective of this project is to add value and benefits to the continued implementation of a wildlife and grassland habitat restoration and conservation program within the LBIR. Specifically, the program will: 1) enhance native wildlife population viability through grassland restoration and conservation, and avoided conversion to agriculture, 2) provide tribal

hunting and gathering opportunities, and 3) increase the soil's GHG sequestration capacity through conservation, restoration, and avoided conversion. Wildlife and habitat conservation benefits current and future tribal members by connecting them to their ancestral lands and culture, while reinforcing conservation ethics and practices, and diversifying employment opportunities.

Part B: Proposed Project Area

B1 Description of Project Location



Map(s) showing overall project area(s) and boundaries

The map (above) shows the Lower Brule Indian Reservation in central South Dakota, USA. Specific properties that would be included with this project are broadly distributed across the LBIR, equaling in aggregate approximately 11,200 acres/ 4,530 hectares.

Identification of any legally designated/protected conservation areas within, overlapping or adjacent to the project area

The Fort Pierre National Grassland (FPNG) is adjacent to the Lower Brule Indian Reservation and comprises approximately 116,000 acres/47,940 hectares of federally-owned (public) land. The FPNG is managed by the U.S. Forest Service for multiple uses including livestock grazing, recreation, and wildlife habitat conservation. The Lower Brule Sioux Tribe (LBST) owns and manages approximately 12,700 acres/5,140 hectares of land within the FPNG (and outside of the LBIR boundaries).

Physical description of the land, habitat types and land use

The LBIR extends to the middle of the original channel of the Missouri River, in the state of South Dakota, and occurs across both Lyman County and Stanley County (44.08°N 99.78°W). The Reservation is approximately 245,186 acres/ 99,223 hectares in total. The topography of the Reservation is characterized by rugged breaks adjacent to the Missouri River that transition to gently undulating prairie habitat. Grasslands dominate the landscape, but tillage row-crop agriculture occurs in areas that are suitable. Established hedgerows of various native and non-native tree and shrub species are intermittently distributed across the Reservation and provide shelterbelts and habitat diversity. The landscape has numerous streams, riparian areas, wetlands, and some drainages that have been dammed to create small to medium-sized ponds that provide water for livestock and habitat for wildlife. Large blocks of grasslands provide habitat to the greater prairie chicken, sharp-tailed grouse, ring-necked pheasant, and numerous species of ground-nesting, migratory songbirds. Other wildlife species that make their homes on the Reservation lands include black-tailed prairie dogs, badgers, black-footed ferrets, coyotes, rattlesnakes, burrowing owls, raptors, waterfowl, jackrabbits, bison, mule and white-tailed deer, American antelope (pronghorn), and various rodent species.

Any known local land degradation processes or trends, including the main drivers of these processes (e.g. population pressure, charcoal production, fire, conversion for agriculture)

The conversion of prairie habitat to tilled row-crop agriculture - namely corn, wheat, and soybean production - are known soil and land degradation processes on the LBIR, especially as global demand for these commodities increases. Another issue known to impact lands on the Reservation is the erosion of lands adjacent to the Missouri River - caused by the U.S. federal government's damming of the river in the 1960's. Approximately 10-20 acres/ 4-8 hectares of LBIR lands are lost to erosion each year, due to wave and ice-action from the large reservoirs.

B2 Description of Socio-Economic Context

Average income and main types of income in the area

The major employers are the Lower Brule Sioux Tribe, U.S. Bureau of Indian Affairs, and the U.S. Indian Health Service. Approximately 1,300 people live on the Reservation. There are 392 residences (e.g., houses, apartments) on the Reservation, 300 of them constructed with U.S. Department of Housing and Urban Development funds. The Lower Brule Housing Authority manages 228 of the homes. Only 36.8% of the units on the Reservation are owner-occupied,

compared to a State average of 68.2%. The housing market is very limited on the Reservation, with most of the housing intended for low-income tribal members.

According to the U.S. Census Bureau, in 2021, the median income for a household in Lower Brule, South Dakota was \$24,063, and the median income for a family was \$28,056. On average, in the United States, the median household income was \$70,784 in 2021.

Summary of relevant local and national governance structures

The Lower Brule Sioux Tribe is a sovereign nation defined by its government-to-government relationship with the United States. The current structure of the Lower Brule Sioux Tribal government was formed under the Indian Reorganization Act (IRA) in 1934. The Lower Brule Sioux are a small Tribe with a small governing Tribal Council of six individuals. The LBST Constitution states that five of the six Council members must be present to have a quorum and conduct formal business. Any action or tribal resolution must have no less than four votes in agreement (either for or against) to pass. The Tribe designed the Constitution to make certain that future leaders would govern by unanimous consent, as was done by ancestors for many generations. The Constitution and bylaws for the LBST took effect on November 27, 1935. Over time, the Constitution has been improved through amendments and establishment of ordinances and codes. A majority vote by tribal members through a referendum or a special secretarial election is required to amend the Constitution. The LBST Constitution and bylaws also address other governmental functions such as promoting general welfare, developing better school facilities, conserving and developing lands and resources, managing the economic affairs and enterprises of the LBST, establishing tribal corporations as necessary to develop and operate tribal business entities, authorizing the Tribal Council to negotiate with the federal government, and establishing the election process and qualifications for office.

Part C: Identification of Target Groups & Communities

C1 Participating communities/groups/individuals expected to benefit from the project

The Tribal Council of the LBST and tribal members recognize the spiritual, cultural, and economic value of the wildlife, fish and recreation resources and associated habitats of the LBIR, and that these are irreplaceable. Unregulated use of the wildlife, fish, and Reservation lands would threaten the cultural and political integrity, the economic security, and the health and welfare of the Tribe. Thus, the conservation of grasslands and wildlife resources is in the best interest of the Tribe, the ultimate beneficiary of the project.

Populations

Lower Brule Sioux Tribe members will be the primary beneficiaries of this project. The largest population on the Lower Brule Indian Reservation is in the town of Lower Brule itself, with a population of approximately 703 as of the 2020 U.S. Decennial Census. The total population on the Reservation is approximately 1,300 people.

Cultural, ethnic and social groups

The racial makeup of the Census-Designated Place (town of Lower Brule, South Dakota) was 94.82% Native American, 4.84% White, 0.17% African American, and 0.17% from 2 or more races. Hispanic or Latino of any race were 0.33% of the population.

Marginalized groups

As of 2021, 48.8% of the population for whom income is determined in Lower Brule live below the poverty line, a number that is significantly higher than the national average of 12.8%. The most common racial or ethnic group living below the poverty line in Lower Brule is Native American.

Gender and age equity

According to the U.S. Census Bureau data, as of 2020, the population of Lower Brule is 53% female and 47% male. On average, the age of the population was 45% under the age of 19, 48% 18 - 64 years of age, and 9% who were 65 years of age or older. The median age was 23 years.

Local organizational capacity

The Lower Brule Environmental Protection Office (EPO) will oversee and implement the Plan Vivo project according to the Plan Vivo Standard, and governance and bylaws of the Lower Brule Sioux Tribal Council. The Mission of the EPO is “to protect the public health by building the capacity of our office, promoting environmental education and outreach, development and approval of environmental codes and ordinances, providing environmental monitoring, providing technical assistance, and cooperating with other environmental agencies on funding and projects.” The EPO is well equipped to serve the functions of the Program Coordinator role for the Plan Vivo project, on behalf of the Tribe.

The Lower Brule Sioux Tribe Department of Wildlife, Fish and Recreation (LBWFR) has been actively managing wildlife resources and conserving habitat on the Reservation for over 30 years, and will continue to do so in support of the Plan Vivo project. Depending on available annual funding generated through hunting permits and grants, the LBWFR implements a comprehensive range of wildlife conservation activities, including annual wildlife population surveys on all game species, hunter harvest surveys, research, law enforcement, prairie habitat leasing, and habitat restoration, such as tree and wildlife “food plot” plantings. The LBWFR has restored or avoided conversion of approximately 11,200 acres/ 4,530 hectares of land on the Reservation, and have reintroduced rare and endangered species such as the black-footed ferret. Across the U.S., few other Tribes are managing wildlife and conserving habitat at such a professional level as the Lower Brule Sioux Tribe.

Part D: Land Tenure & Carbon Rights

D1 Describe the land tenure context and current understanding of carbon/ES rights for the project area(s)

The land tenure on the Reservation is somewhat complex (like other American Indian reservations). Some parcels are 100% owned by LBST, some are 100% owned by an individual tribal member(s) (called allotments, or individual trust lands), and other lands are partially tribal and partially allotted. On the 100% tribal lands, the LBST Tribal Council has decision-making authority. On 100% allotted lands the allottee(s) have decision-making authority (although there may be hundreds of owners due to historic federal enactments that distribute land ownership equally across descendants of original landholder(s) [e.g., 1887 Dawes Act], in which case the Bureau of Indian Affairs shares management and decision-making authority).

In total, all properties included in this project are owned by LBST, are not allotted, and are controlled and managed by the LBWFR through long-term lease agreements with the Tribe. For this project, included are only lands that are: 1) 100% tribally owned (no allotment interests), 2) lands that have a direct lease with the Tribe (no land leases with individuals and subleases), and 3) lands that are managed for wildlife conservation. All lands proposed for carbon offset evaluation under the Plan Vivo Standard meet all three of these criteria.

Lands managed by the LBWFR are being submitted for the Plan Vivo carbon offset project. The LBWFR has long-term agreements to lease land that are approved by the governing body - Tribal Council. LBWFR leases lands from the Tribe directly for wildlife and habitat conservation and management, often with 25-year lease agreements. All of these leased lands are 100% tribally owned land.

To address the Plan Vivo permanence requirement, LBST proposes to use two consecutive 25-year recreation leases to commit the parcels to long-term practices that supply ecosystem services, including carbon sequestration. The Wildlife Department has used two consecutive, 25-year lease agreements to satisfy criteria of permanent protection on lands that were purchased with North American Wetlands Conservation Act funding in the past, to meet the federal government's "permanently conserved" requirement of the grant. These lease agreements legally ensure long-term protection (e.g., 50 years), and demonstrate more than minimum projections of permanence on carbon offset projects.

State typical size of land-holdings in the project

Nineteen Management Areas equaling approximately 11,200 acres/4,530 hectares would be included in this project. Management Areas in the project range in size from approximately 50 to 3,421 acres and average 589 acres/238 hectares in size.

List any conflicts or potential issues related to land tenure, including any national/regional land reforms underway

All parcels included in the project are currently owned by the Lower Brule Sioux Tribe and leased to the LBWFR for wildlife and habitat conservation purposes. There are no conflicts or issues associated with land tenure rights.

The Bureau of Indian Affairs (BIA) is a U.S. federal government agency with a mission “to enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of American Indians, Indian tribes and Alaska Natives.” The BIA Great Plains Regional office (for the states of North Dakota, South Dakota, and Nebraska), which oversees programs on the LBIR, asserts* that there are no protocols in place or requirements for BIA approval for LBST entering the carbon market. The lands proposed for this project are 100% Tribal Lands and there are no proprietary or near proprietary rights (25 CFR 84.004(e)), and therefore BIA would not have a direct role in this project.

Assessment of the difficulty in proving land tenure and/or carbon and ES rights, detailing any measures to clarify or strengthen these rights

All parcels included in the project are currently owned by the Lower Brule Sioux Tribe and leased to the LBWFR for wildlife and habitat conservation purposes. There are no conflicts or issues associated with land tenure rights. LBWFR can provide legal documentation of lease agreements and ownership for all lands included in the project. LBWFR is provided the first right of refusal when renewing leases, and thus can maintain land acreages throughout the duration of the project.

**Email communication with the BIA for reference is available, as needed.*

Part E: Project Interventions & Activities

E1 Describe the types of interventions included in the project and envisaged to generate PV Certificates

The interventions to be implemented within this project are described in detail in the LBWFR’s 5-year Conservation Plan FY 2019-FY 2023, and are summarized below. Our preliminary estimate of carbon sequestration resulting from LBWFR’s implementation of best management practices on lands leased offers an annual average carbon sequestration rate of about 16,540 Mg CO₂e/year over a baseline that assumes a full land conversion to tilled agriculture scenario. Estimates were derived from the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service COMET Planner (<http://www.comet-planner.com/>), and the Climate Action Reserve Grassland Protocol GrassTool (<https://www.climateactionreserve.org/how/protocols/grassland/>) where coefficients for different best management practices or interventions are assigned corresponding acreage as managed

by LBWFR. Co-benefits of LBWFRs conservation efforts include wildlife conservation, increased rangeland productivity important for carbon sequestration and wildlife cover and food, improved water quality, enhanced native biodiversity, provision of pollinator habitat, tribal subsistence from hunting and gathering, and opportunities for environmental education and community recreation.

Ecosystem restoration

The LBWFR is currently engaged in restoring wetlands and grasslands across the Reservation. Specific activities include planting native grass species on previously-tilled agricultural lands, and maintaining grasslands through periodic mowing, noxious weed control, and prescribed burning. In addition to habitat restoration, LBST biologists are working to restore and conserve native wildlife species that are rare or declining, such as the federally-endangered black-footed ferret and locally at-risk American antelope (pronghorn). It is important to note that the effects of these specific population management efforts extend beyond the areas identified for this project, recognizing the project area sometimes contributes habitat for these and other species in need of conservation. The LBWFR intends to continue the leasing of tilled croplands for the purpose of restoring them to mixed-grass prairie habitat.

Ecosystem rehabilitation

The LBWFR Conservation Plan proposes to continue the practice of restoring and maintenance of wetland habitats (including riparian zone buffering and erosion control), and continued establishment of shrub and tree hedgerows where appropriate. Wetlands are protected and created to support waterfowl and provide watering areas for native wildlife populations. In addition, LBWFR actively controls invasive eastern red cedar trees (*Juniperus virginiana*) along with other noxious weeds (e.g. Canada and musk thistle). The encroachment of these species greatly reduces the quantity and quality of forage availability for native wildlife.

Prevention of ecosystem conversion or degradation

Long-term land leases and purchases managed by the LBWFR are used to provide wildlife habitat, while avoiding their conversion to tillage-agriculture. Restored and native grasslands constitute the majority of the lands to be protected from conversion through Plan Vivo voluntary carbon market agreements. Grasslands are known to store incredible volumes of carbon in deep-rooted soils, but are at risk of conversion due to short-term gains offered by agricultural interests. Native grasslands within the LBIR and even more so surrounding the Reservation, have already been converted and lost to tillage agriculture. LBST's grassland conservation and long-term management practices result in the protection of these increasingly rare ecosystems, along with co-benefits of greenhouse gas emissions reductions, reduced soil erosion, reduced sedimentation in streams and lakes, improved water quality, healthy wildlife habitat, enhanced prairie and wetland resources, and the protection of sacred lands.

Improved land use management

LBWFR implements improved land management practices through the creation of no-till forage areas or "food plots" and grasslands to supplement native wildlife populations' food and cover requirements. The Department also works continually to modify or remove unnecessary fencing

to facilitate movement corridors for large and native wildlife species (such as pronghorn and deer), control noxious weeds, establish native prairie plant species, and conduct outreach and education on wildlife habitat best management practices to ranchers and farmers on the Reservation.

Currently, LBWFR wildlife food plots in the proposed project area comprise a small proportion of the overall area that is included in the project area. Food plots are mostly composed of non-native (but naturalized) crop species (e.g., corn, sorghum), however the Department is willing to adopt and promote native food species if necessary to better comply with the Plan Vivo Standard, or if that is not possible, remove these lands from the proposed project area.

Part F: Identification of Any Non-Eligible Activities

F1 Describe any additional activities to be supported or implemented by the project

How these additional activities relate to the project objectives

As part of the program, LBWFR has a Wildlife, Fish and Recreation Enforcement Code that sets rules and regulations for hunting, fishing, trapping, and other uses of natural resources on Tribal lands. Federally-certified, Tribal Conservation Officers ensure compliance with the code. In addition, LBWFR wildlife staff will continue to conduct regular annual wildlife surveys for tracking the status and trends of focal species populations, to gauge the potential benefits of conservation efforts.

Part G: Long-Term Sustainability Drivers

G1 Description of project design that will ensure the project is self-sustaining after carbon/PES revenues cease

Project activities such as: high-value sustainable timber, NTFP initiatives, sustainable enterprises, tree nurseries, ecotourism, etc.

Long-term sustainability of the LBWFR program (outside of Plan Vivo support) will mainly rely on the sale of hunting and fishing licenses and boat launch fees, along with other federal grants and interest earned from a mitigation trust fund, which are currently used to support the program today. Furthermore, the grasslands to be protected through the Plan Vivo project have not been grazed by cattle to date. However, sustainable grazing of these lands could be considered in the future.

Additional long-term and non-monetary support is anticipated through outreach and education efforts where tribal members and landholders (e.g., ranchers and farmers) gain awareness from

the project, to improve land management practices that are consistent with supporting native wildlife habitats. The purpose of restoring the project lands has been, and remains, to protect these lands as habitat for wildlife, for the ecosystem services that the habitat provides, and as places where tribal members can use to practice cultural traditions. The Tribe intends to cultivate greater connection with the land, wildlife, and cultural heritage of native prairie grasslands for the Sioux Nation, through stewardship programs and traditional knowledges teachings from elders, as proceeds from the Plan Vivo allow.

Part H: Applicant Organisation & Proposed Governance Structure

H1 Project Organizational Structure

Identify organisations, communities, groups and individuals that may/will be involved in the governance of the project and their corresponding roles (use diagrams and tables if necessary)

The Lower Brule Sioux Tribe (LBST) will serve as the applicant for this project. The LBST Environmental Protection Office (EPO) will act as the Plan Vivo Program Coordinator. The EPO will work with tribal members, the Lower Brule Wildlife, Fish, and Recreation Department (LBWFR) and the LBST Tribal Council throughout the development and implementation of the project.

Project Coordinator and legal status – technical functions, administrative functions, and social functions

The Lower Brule Sioux Tribe (LBST) is a sovereign nation defined by its government-to-government relationship with the United States. As part of the Sioux Nation, the Tribe signed treaties in 1824, 1851, 1865 and 1868 with the U.S. federal government that constitute the legal documents establishing boundaries and recognizing the rights of sovereign tribal governments. The LBST Tribal Council was chartered under the Indian Reorganization Act of June 18, 1934. Its constitution was ratified on July 11, 1936, and bylaws were approved in 1960.

The Project Coordinator for this project is the Lower Brule Sioux Tribe (LBST) Environmental Protection Office (EPO). The role of the LBST EPO is to administer and implement the Plan Vivo project. The Mission of the EPO is “to protect the public health by building the capacity of our office, promoting environmental education and outreach, development and approval of environmental codes and ordinances, providing environmental monitoring, providing technical assistance, and cooperating with other environmental agencies on funding and projects.” The EPO will be directly responsible for the technical, administrative and social functions of the Plan Vivo project. The EPO and LBWFR will work together to monitor and record the conservation and restoration efforts on the Lower Brule Indian Reservation lands that are designated for the

Plan Vivo project. Technical consultants are working with the EPO in development of the Plan Vivo, in support of some administrative and technical responsibilities. (See Table 1, below). The intent is to fully train relevant staff to full capacity, in order to reduce or eliminate the need for outside consultation and technical support. Independent third party Validation and Verification Bodies will be utilized initially and on an ongoing basis.

Table 1. Roles of Project Coordinator, supporting agencies, and technical consultants

PV Category	Functions	LBST EPO	LBWFR	Technical Consult
ADMINISTRATIVE				
	Registration and recording of management plans and sale agreements	X		
	Managing the use of project finance in the Plan Vivo and making payments	X		
	Managing Plan Vivo Certificates in the Plan Vivo registry	X		X
	Reporting to the Plan Vivo Foundation	X		X
	Coordinating and contracting project audits i.e. validation, verification	X		X
	Negotiating sales of Plan Vivo Certificates	X		X
	Coordinating and recording monitoring	X		
	Managing project data	X	X	X
TECHNICAL				
	Designing land-use activities with communities and quantifying carbon services of activities	X	X	X
	Developing, reviewing, and updating technical specifications	X		X
	Evaluating management plans	X	X	
	Providing technical extension support and training	X	X	X
	Monitoring carbon, livelihoods, biodiversity, and ecosystem services	X	X	
SOCIAL				
	Conducting preliminary discussions and continued workshops with communities	X		
	Helping participants to demonstrate land-tenure	X	X	
	Gathering socio-economic information for project registration and reporting purposes	X		
	Advising on issues such as mobilization, payments, dispute resolution	X		

Capacity and experience of each organization involved

The LBST has the capacity to develop and implement the proposed Plan Vivo project. Associate technical consultants have direct experience quantifying ecosystem service benefits of land management activities including forest management, grasslands, and rangelands. All documentation will be developed and/or reviewed and approved for submission by the LBST EPO. Funding to support the technical assistance and documentation preparation for the project is currently provided by the First Nations Development Institute.

The LBST Lower Brule Wildlife, Fish, and Recreation Department (LBWFR) has decades of empirical research, conservation, restoration and natural resource management experience on the Reservation. On behalf of the Tribe, the LBWFR is determining the activities that will best preserve and restore the land, while improving carbon sequestration opportunities. LBWFR and EPO have determined what projects are most suitable for the Tribe, and for Plan Vivo. They will implement these projects submitted for consideration in the carbon offset marketplace, in accordance with current conservation planning for the Reservation lands, tribal community and wildlife.

The LBST Environmental Protection Office (EPO) has over 30 years of environmental program management on behalf of the Tribe. The EPO is currently responsible for oversight, regulation and management of water quality, non-point source pollution, brownfield and solid waste across the Reservation. The EPO works closely with the LBWFR, and, for example, is taking water samples on the Missouri River for an ecosystem restoration project that is currently underway, in which LBWFR is acting as the lead department.

LBST, in particular the EPO, will coordinate community outreach, engagement and education efforts throughout all stages of this project. This will include public workshops and meetings across tribal departments to communicate the intentions of the Plan Vivo, project requirements, land improvement plans and implementation methods, carbon offsets, and payment mechanisms. LBST EPO will be responsible for administrative support, progress reporting, and managing project finances.

First Nations Development Institute (FNDI) plays a supporting role in the Plan Vivo project development by funding LBST for the cost of establishment of carbon offset market viability, including Plan Vivo project application and documentation, and ongoing technical capacity. Consultants are currently responsible for technical contributions, and will develop the technical specifications including GHG emission reduction calculations and quantification, in partnership with the Tribe.

H2 Applicant organization (not necessarily the project coordinator) must provide the following information about itself

Legal status (e.g. registered NGO)

The Lower Brule Sioux Tribe is a federally-recognized Indian Tribe and a sovereign nation defined by its government-to-government relationship with the United States. As part of the Sioux Nation, the Tribe signed treaties in 1824, 1851, 1865 and 1868 with the U.S. federal government that constitute the legal documents establishing boundaries and recognizing the rights of sovereign tribal governments. The Tribal Council was chartered under the Indian Reorganization Act of June 18, 1934. Its Constitution was ratified on July 11, 1936, and bylaws were approved in 1960. The Tribe has contracted several aspects of self-government under the 1975 Indian Self Determination and Education Assistance Act, PL 93-638. On June 17, 1974, the Constitution and bylaws were amended, and on September 2, 1986, they were again amended, and a Code of Ethics adopted. The Lower Brule Indian Reservation is a Native American Indian Reservation that belongs to the Lower Brule Sioux Tribe. It includes portions of the Missouri River in Lyman and Stanley Counties in central South Dakota in the United States.

Long-term objectives of the organization

The Tribal Council of the Lower Brule Sioux Tribe (LBST) recognizes the spiritual, cultural, and economic value of the wildlife, fish and recreation resources of the Lower Brule Indian Reservation, and that these are irreplaceable. The Council and Tribe members understand that the unregulated use of flora, fauna, and recreation lands of the Tribe would threaten cultural and political integrity, economic security, and the health and welfare of the Lower Brule Sioux Tribe. Enrolled members of the LBST alone have the absolute, inherent, and retained sovereign right to use and enjoy the Lower Brule Indian Reservation. The Tribal Council, in overseeing the wildlife and recreation resource use of the Reservation on behalf of the Tribe, intends that tribal members shall be afforded the greatest possible freedom to use and enjoy these resources, consistent with the preservation and improvement of these resources for future generations.

Summary of current activities including details of scale and range

Current activities implemented by the LBST are summarized above and are detailed in the Lower Brule Sioux Tribe Department of Wildlife, Fish and Recreation 5-year Conservation Plan (FY2019-FY2023), Wildlife Habitat Restoration/Management Annual Reports (e.g., 2017), and Biological Activities Annual Reports (e.g., 2017).

Personnel to be involved in the project with details of relevant skills and experience

Project Coordinator, Administration – The EPO Director and staff will provide management and direct oversight of the Plan Vivo Project. The EPO will work with the LBWFR, tribal members and technical consultants to implement and monitor the Plan Vivo project. The EPO will coordinate community engagement and education activities related to the LBST Plan Vivo, which will serve as the public forum to discuss and gain input on Plan Vivo project activities. The LBWFR 5-year conservation plan will serve, in large part, to guide the personnel, scope and schedule of the Plan Vivo habitat conservation and restoration project.

Project Development, Technical Services - The project documentation is being developed by third-party consultants in coordination with the LBST EPO and LBWFR. Technical consultants for the LBST EPO have experience in quantifying ecosystem services, including

carbon sequestration associated with improved forest management, soil health, and agricultural lands.

Immediate to project implementation, the main divisions of the EPO and LBWFR positions and functions are:

- Project Coordinator - The LBST EPO will act as the Project Coordinator, including oversight or responsibility for the technical, administrative, and social functions of the Plan Vivo Project.
- Project Administration - The EPO Director and two administrative assistants will provide general management of the Plan Vivo project, and direct oversight of the day-to-day implementation of the Plan Vivo Project.
- Habitat Conservation - A LBWFR Habitat Biologist and seasonal technicians will be responsible for implementation of habitat conservation and restoration efforts on the LBIR carbon project lands.
- Wildlife Population Management - Two LBWFR Wildlife Biologists and seasonal technicians will conduct wildlife population surveys and research, provide harvest recommendations for game species, and estimate harvest rates of game species.
- Law Enforcement - Three Conservation Officers will enforce the Wildlife, Fish, and Recreation Enforcement Code across LBWFR managed lands.
- LBST Tribal Council - Serves as a forum for project managers and the public to discuss and gain input on Plan Vivo project activities, and will serve as the final decision maker to approve project implementation priorities.

Part I: Community-Led Design Plan

I1 Submit a plan for achieving community participation in the project, including a mechanism for ongoing consultation with target groups and producers

The LBST Environmental Protection Office will offer at least two community meetings during the first year of the Plan Vivo and carbon offset project development and verification process. This will allow the LBST EPO to explain the concept of carbon offsets and ecosystem services, the Plan Vivo Standard, and the many benefits afforded to the Tribe from conserving native ecosystems and habitats. The EPO Administrator will present and gain feedback from tribal members as primary shareholders, and sovereign landowners. The EPO intends to receive feedback from the Tribe as to long-term project planning, and financial benefit sharing across the tribal community. Once the project plan has been vetted, representing input from community members and shareholders, it will be presented to the Tribal Council for formal approval.

All plans and actions proposed by the EPO and LBWFR under this project will be reviewed by the Tribal Council. The EPO will have formal consent from the Tribal Council of the Plan Vivo Project and Design Document before submission to Plan Vivo Foundation.

Community meetings will be held in the Lower Brule Community Center. This is a large center that can accommodate several hundred people. Meals will be provided and door prizes will be offered to increase attendance. Community meetings will be advertised using social media platforms, and by posting flyers at businesses and offices in Lower Brule.

Consultation with the community will be ongoing over the course of the Plan Vivo project. At a minimum, the EPO participates in two community-wide events annually in which the Tribe will be informed and consulted on the Plan Vivo project. The EPO hosts an annual producer meeting to honor and address the needs of tribal agricultural producers. Meals are provided and the meeting is regularly well attended. The event will allow the EPO and LBWFR to educate producers on the benefits of soil health and ecosystem services of regenerative agriculture, wildlife, and native grassland conservation. The EPO office also participates in the annual Family Fun Day at the Community Center, in which they staff a booth explaining the role of the EPO, while offering substantial environmental information for tribal members. An informational flyer will be available at these events to advertise the Plan Vivo project model and benefits to the community, wildlife, and ecosystems across the Reservation.

The Lower Brule Sioux Tribe Dept of Wildlife, Fish, and Recreation (LBWFR) is a program within the tribal organizational structure. Employees of this program are members of the community and work to serve the tribal community. The ongoing work to sustainably manage the Plan Vivo project lands will be conducted by LBWFR employees. A primary component of the carbon project design and Plan Vivo is the LBWFR 5-year Conservation Plan (FY2019-FY2023). Development of this plan included a comprehensive stakeholder engagement process (documented in the plan) and required approval by the Lower Brule Sioux Tribal Council. Additional supplements to this plan that are specific to the Plan Vivo project will undergo similar consultation with tribal stakeholders and approval by the Tribal Council. The LBWFR Conservation Plan will be revisited in late 2023 or early 2024, updated, and upheld for another five years. LBWFR does not expect substantive changes in terms of the vision, goals, or general strategies of this plan - which will in turn remain as guidance for the LBST Plan Vivo project.

Ongoing opportunities for broader community participation in the Plan Vivo project, alongside the EPO and LBWFR participation, are in development. While introducing the Tribe to the Plan Vivo project in large community gatherings, the EPO will gather feedback as to long-term project planning, and financial benefit sharing across the tribal community. The intention is to integrate the community's needs and expectations for fair and equitable distributions, while supporting the greater goals of the conservation and restoration of wildlife habitat, healthy ecosystems, and culturally significant lands. Environmental programs, such as engaging high school students in stewardship or wildlife surveys, and traditional knowledge teachings of elders to youth have been discussed, and are anticipated as beneficial use of the carbon revenues.

The LBST EPO and LBWFR accept the following provision: *Participation in Plan Vivo projects must be through free, prior, informed consent (FPIC), and demonstrable through consultation and participatory design processes. Projects should, at an early stage, initiate discussions with target groups to identify project activities.*

Part J: Additionality Analysis

J1 Description of how project activities additional

Statement that the project is not the product of a legislative decree, or a commercial land-use initiative likely to have been economically viable in its own right

The proposed Plan Vivo project at the LBIR is not a product of legislative decree, or an economically viable commercial land-use initiative.

Description of the current barriers to implementing the proposed project, e.g. lack of finances, lack of technical expertise

The Plan Vivo project would help to implement actions needed to achieve and support the Tribe's spiritual, cultural, and economic values associated with wildlife, fish and recreation resources. The wildlife habitat conservation actions proposed in the project are on-going on the Reservation, however a lack of diverse revenue streams (e.g., reliance on federal funding and minimal revenue from hunting license sales to non-tribal members) makes the program vulnerable if a funding source is eliminated. Funding generated through the project would create a reliable funding source and help to perpetuate the existing grassland habitat conservation program and support other tribal programs. The LBWFR leases these lands from the Tribe, so other revenue-deriving activities such as conversion to cropland could take precedence without alternative funding sources. In addition, the implementation of the proposed Plan Vivo project on the LBIR provides an opportunity to expand the application of the Plan Vivo Standard and associated practices to other Indian reservations in the prairie ecoregion.

Description of how the project will overcome these barriers.

Supplemental funding has been secured to support start-up costs and document preparation for the carbon offset market verification, registration and Plan Vivo development. Technical assistance has been secured to support carbon offset quantification and technical specification development.

Essential programmatic funding for the LBWFR is available from mitigation funds which are utilized for staffing, equipment and supplies for water quality testing, habitat restoration, habitat leasing, and recreation areas. Programmatic funding for the EPO is available from grants from the U.S. Environmental Protection Agency. Habitat conservation and restoration activities have been supported in the past with funding from the U.S. Department of Agriculture's Conservation Reserve Program, Bureau of Indian Affairs Hazardous Fuel Reduction and Forestry Development Programs, U.S. Fish and Wildlife Services Tribal Wildlife Grant Program and North American Wetlands Conservation Grants, U.S. Bureau of Reclamation, Ducks Unlimited,

Pheasants Forever, and Inter-tribal Buffalo Council. Some of these funding sources may be available for further support in the future, alongside or in lieu of carbon offset sales, as long as native prairie ecosystems are protected.

Barrier Analysis

The Lower Brule Sioux Tribe faces financial, technical, and social barriers in implementing sustainable land management on the Reservation. A summary of barriers identified in Lower Brule, and how project activities will enable the community to overcome them, is provided in Table 2.

Table 2. Barrier analysis of Lower Brule Sioux Tribe in implementing grassland conservation and restoration projects

Type of Barrier	Description	Project Activities to Overcome Barrier
FINANCIAL		
	Limited funding and lack of diverse revenue streams that may be eliminated	Revenue generated through the carbon project would create a reliable funding source, and help to perpetuate the existing conservation program and other tribal programs
	Prospects of agricultural revenues incentivizes prairie / grassland conversion	Community engagement and education on grassland, wildlife, and cultural conservation incentivizes protections
	Limited funding for land management, scientific research, restoration, and social programs for youth and elderly.	Carbon revenues will support stewardship programs, restoration opportunities and programs for youth and elderly.
	Limited or no funding for purchasing additional cropland on the Reservation for restoration, or other PES projects	Carbon project revenues can be applied to furthering grassland protections across the LBIR and other indigenous lands
TECHNICAL		
	Technical training is needed	Ongoing training of LBST

Type of Barrier	Description	Project Activities to Overcome Barrier
	for technical specifications, carbon methodologies, and carbon market procedures	representatives during Plan Vivo development, and beyond verification, is funded and prioritized
	Limited staff availability for managing this project	Carbon revenues will support new employment as needed for the administration, social and technical requirements of the LBST Plan Vivo
SOCIAL		
	Concerns of tribal sovereignty of their lands, with long-term commitments to the carbon market	Ecological, spiritual and economic incentives to protect native prairie lands are already embedded in LBST culture. Carbon revenues will support this protection while tribal members develop and manage their own project with complete sovereignty over their land use and commitments
	Lack of understanding of the value of healthy grassland soils, climate mitigation, and carbon markets	The EPO will engage the tribal community at every stage of the Plan Vivo project for educational and participatory purposes

Additionality Assessment

Additionality for the proposed LBST carbon project is assessed against requirements from both the American Carbon Registry (ACR) Standard and the Climate Action Reserve (CAR) Grassland Protocol v. 2.1. ACR's three-part additionality test assesses: 1) Regulatory Surplus, 2) Common Practices, and 3) Implementation Barriers. The additionality test requires that projects exceed currently effective and enforced laws and regulations; exceed common practice in the relevant industry sector and geographic region; and face at least one of three implementation barriers (financial, technological, or institutional). The proposed LBST Plan Vivo meets each of these requirements.

The ACR Additionality criteria on Common Practice asks: *“In the field or industry/sector, is there widespread deployment of this project, technology, or practice within the relevant geographic area?”*

There is not widespread deployment of payment for ecosystem services projects, or wildlife habitat conservation practices in the region. Baseline activities in the region include tillage agriculture over suitable agricultural lands. On LBIR specifically, no other entity is restoring, creating and conserving grassland habitat on lands that are suitable for agriculture. Nor is there widespread implementation of these practices off the Reservation. Common practice in the region can be demonstrated using existing spatial data from the U.S. Department of Agriculture.

Further, the CAR Grassland Protocol includes another Financial additionality threshold that the project will be required to abide by. That is:

“The [Climate Action] Reserve has determined that there is a financial barrier to project activities due to the economic incentives to convert grassland to cropland. Rather than have each project demonstrate the existence of this barrier individually, the Reserve has developed a standardized threshold for financial additionality, referred to as the “cropland premium.” The cropland premium is determined as the percentage difference in the value (represented by land rental rates in \$/acre) of cropland over pastureland in the county where the project is located. Project eligibility is based on the cropland premium for the county where the project is located, based on the conditions below:

- 1. Projects in counties with a cropland premium greater than 100% are eligible without any discount for uncertainty.*
- 2. Projects in counties with a cropland premium greater than 40% but less than 100% are eligible, but must apply a discount to their baseline emissions, unless the county can meet the requirements of step 4*
- 3. Projects in counties with a cropland premium less than 40% are not eligible, unless the project meets the requirements of step 4*
- 4. Projects in counties that meet the description of step 2 or step 3, or which are identified in the tables as having “No Data,” have the option to obtain a certified appraisal to determine a site-specific cropland premium, following the guidelines below for the appraisal process.”*

The parcels included in the proposed Plan Vivo project meet the above requirements in both Stanley and Lyman County, South Dakota. The project lands do have a “cropland premium” greater than 100%, to meet project eligibility and the financial additionality threshold for the CAR Standard and Grassland Protocol.

Part K: Notification of Relevant Bodies & Regulations

K1 Provide both of the following (scanned copy of letter, or email)

Evidence of notification of the relevant national regulatory body of the project proposal (e.g. national climate change focal point, Ministry of Forestry, Dept. of Environment, REDD+ Agency, etc.)

Project activities proposed and implemented at LBIR have been implemented for more than 15 years by LBWFR. Consequently, the Tribal Council and Bureau of Indian Affairs (relevant regulatory bodies) are already notified of the project activities.

Statement of intention to comply with all relevant national and international regulations

The Lower Brule Sioux Tribe intends to comply with all relevant national and international regulations for the duration of this project. As a sovereign nation, the Lower Brule Sioux Tribe is not directly a party to the Paris Agreement, and does not actively participate in the international greenhouse gas accounting framework (e.g., Nationally Determined Contributions), but is subject to federal environmental laws.

Part L: Identification of Start-Up Funding

L1 Provide details of how the project will be financed in the development phase, before full project registration

The development phase of the Plan Vivo project is being funded by the First Nations Development Institute (FNDI). FNDI funding has been secured by the LBST EPO for project design, documentation, development, and verification. The LBST carbon offset project development has historically been funded by a USDA Natural Resources Conservation Service Conservation Innovation Grant. The grant was awarded to the National Indian Carbon Coalition (NICC) in 2015 for the development of the voluntary carbon offset marketplace for Tribes. This start-up funding allowed for the research and original proposal documentation to be developed for the LBST Plan Vivo in 2019-2020 by Spatial Informatics Group - National Assets Laboratory (SIG-NAL).

Currently, the LBWFR conducts projects and activities with a variety of funding sources to support the habitat conservation program. All activities take place with the approval of the Lower Brule Tribal Council. Hunting and fishing license revenues, buffalo live sales, and cabin rentals provide funding for basic functions of the Department including some salaries, administration and facilities maintenance. Bureau of Indian Affairs P.L. 93-638 contract funds provide for law enforcement officer salaries and equipment, as well as basic wildlife population surveys. A habitat mitigation trust fund covers the costs of the majority of work for habitat restoration.