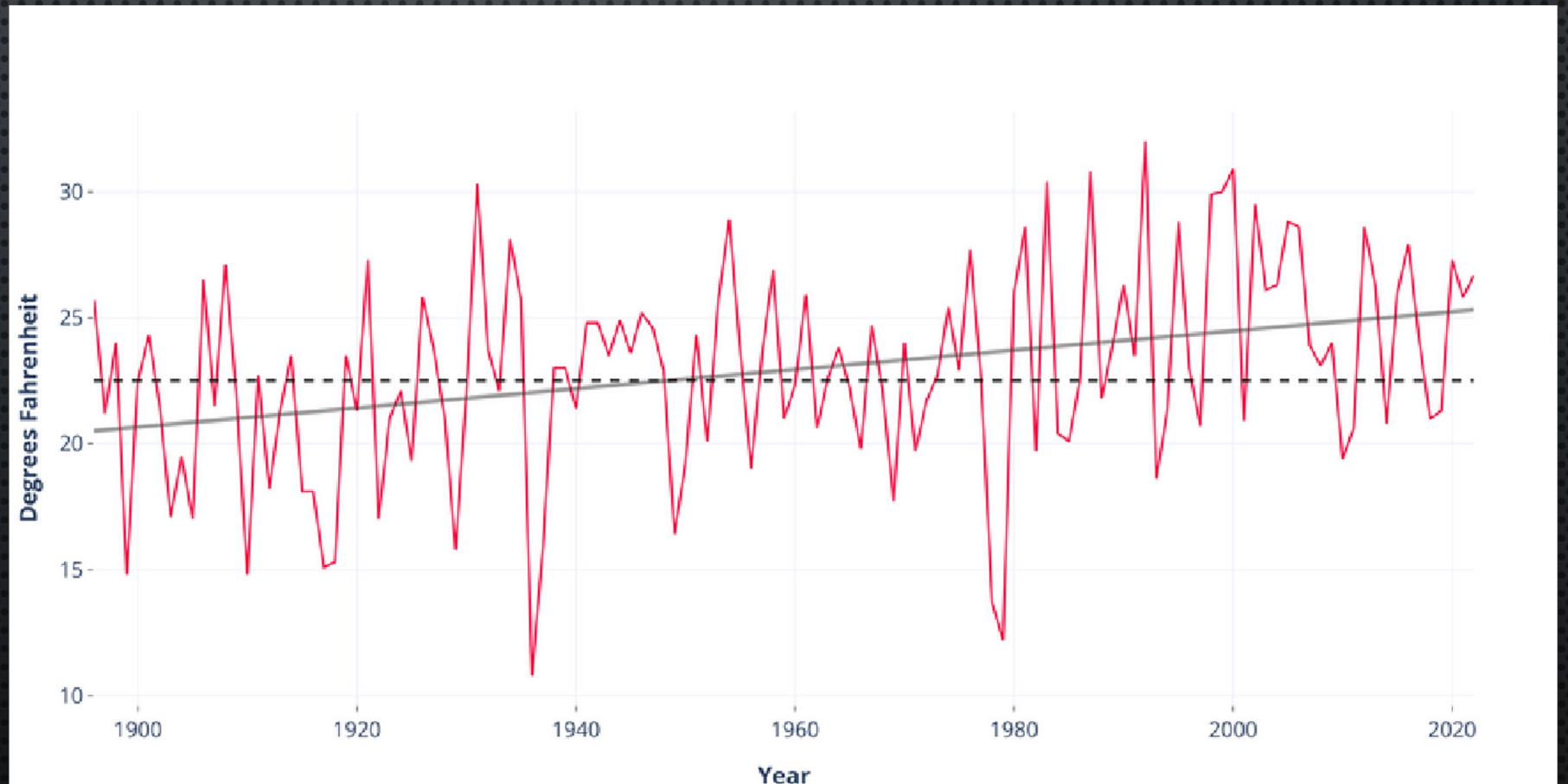
A photograph of a bison standing in a field at night. The bison is the central focus, with its head and horns clearly visible. The background is a dark, starry night sky. The text is overlaid on the bison's body.

Sicangu Lakota  
Oyate  
Facing the Climate  
Crisis

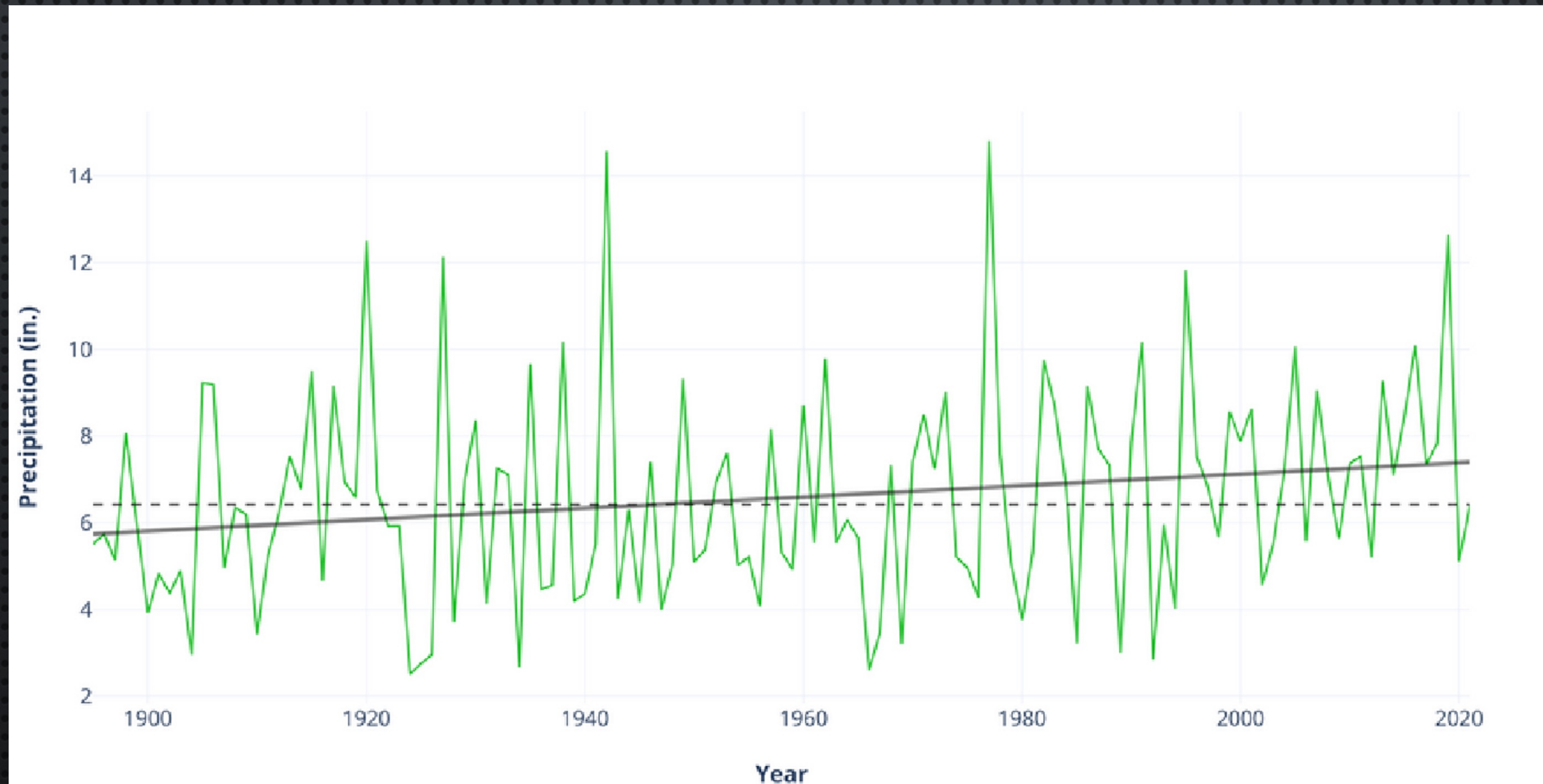


# THE PAST – TEMPERATURES RISING AT ROSEBUD





# THE PAST – RAIN AND SNOW RISING AT ROSEBUD

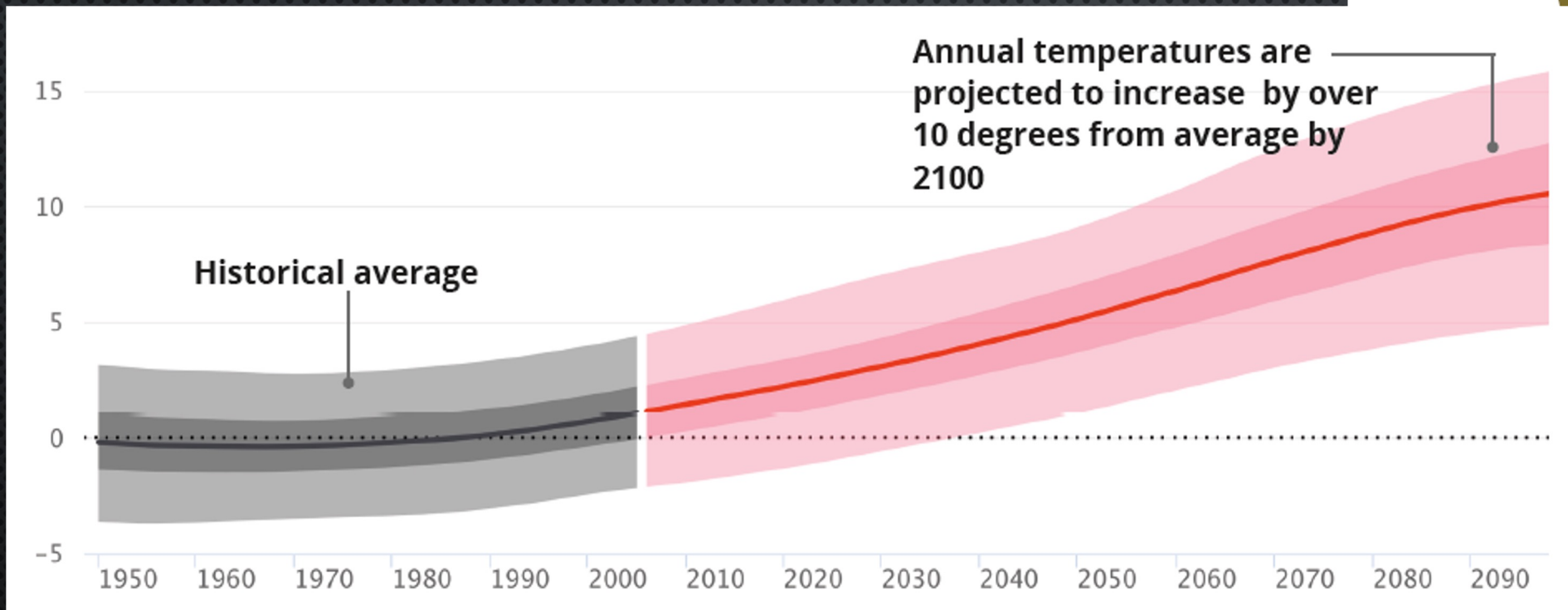
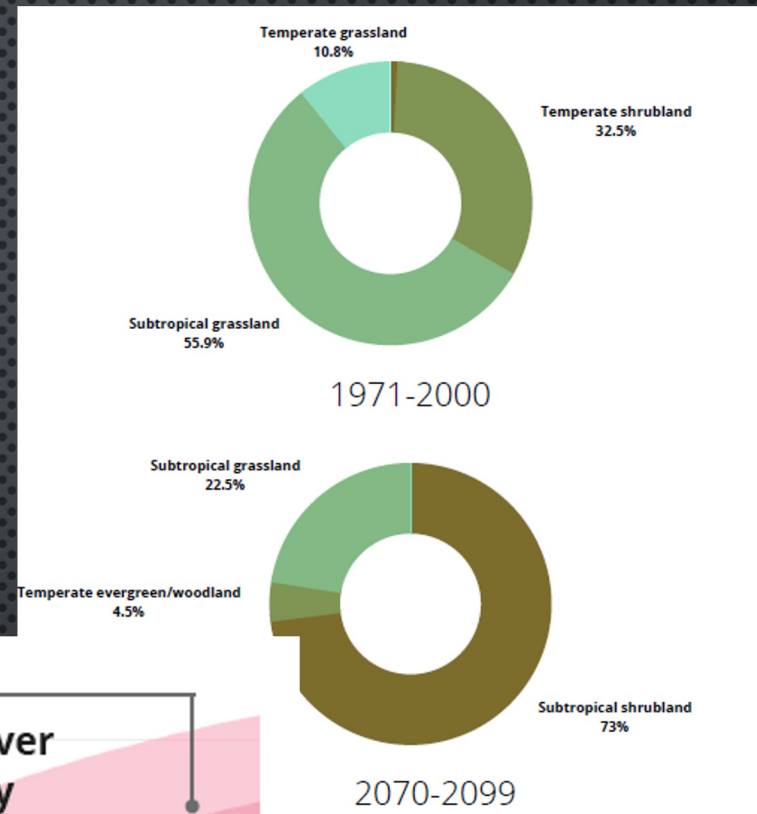
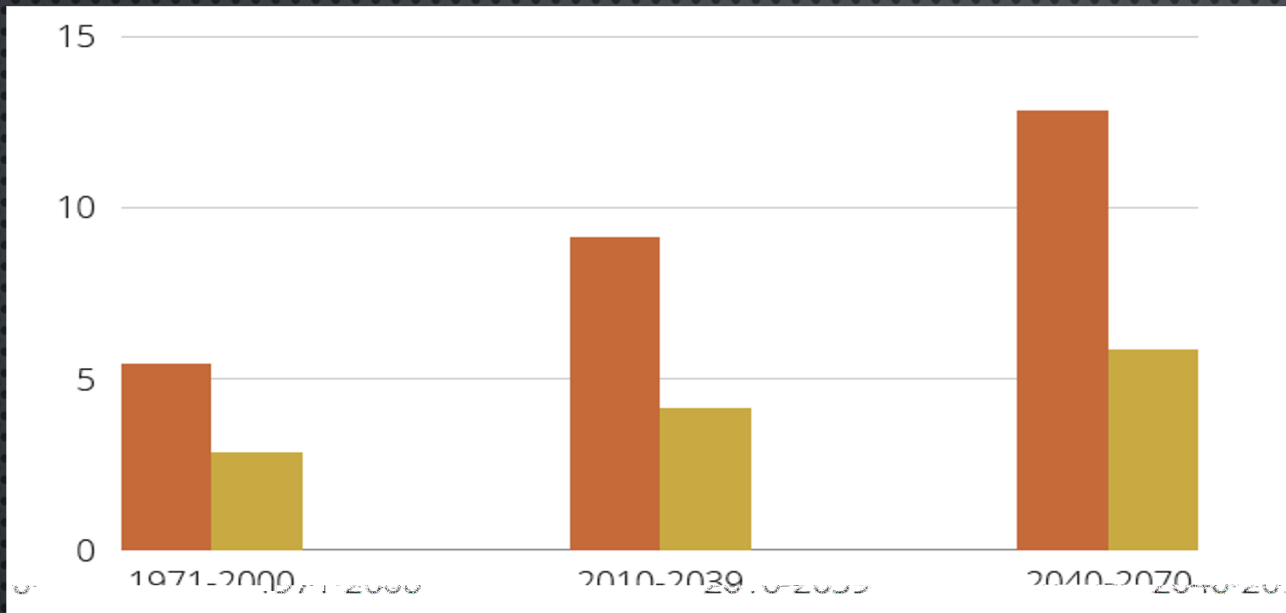




# MORE HOT AND VERY HOT DAYS TO COME

	>90 degrees F	>100 degrees F	>105 degrees F
1990s	25 days	2 days	0 days
2025s	43 days	7 days	2 days
2055s	63 days	19 days	6 days
2085s	85 days	43 days	23 days









**ROSEBUD SIOUX TRIBE**

PO Box 430  
Rosebud, SD 57570  
Phone: 605.747.2381  
Fax: 605.747.2905  
Website: [rosebudsiouxtribe-nsn.gov](http://rosebudsiouxtribe-nsn.gov)

Rodney Bordeaux, **President**  
Scott Herman, **Vice President**  
Louis Wayne Boyd, **Treasurer**  
Linda L. Marshall, **Secretary**  
Edward Clairmont, **Sergeant-at-Arms**

August 6, 2019

MEMORANDUM

To: Phil Two Eagle, SLTC  
Syed Huq, Water Resource  
Ivan Crow Eagle, Environmental Office  
Paula Antoine, Sicangu Oyate Land Office  
Ken Haukaas, RST Forestry  
Frank Vanderwalker, Natural Resources  
Tony Rogers, RST Utility Commission  
Ken LeDeaux, Sicangu Resource Development

From: Rodney M. Bordeaux, RST President

Re: Climate Change Working Group

I am hereby authorizing individuals listed above as the Rosebud Sioux Tribe Climate Change Working Group. Also, to present a resolution to the Rosebud Sioux Tribe Council for approval. The RST resolution shall mention a change on developing climate change strategic plan and assign a meeting facilitator or chairperson for the Rosebud Sioux Tribe. At this time, you will be the initial group and may have other tribal programs to assist with this project. There will be regular meetings held to keep making progress with this project. Please add any additional information in the resolution. James Rattling Lead a tribal member will be a part of this group. Mr. Two Eagle will initiate the process of this project on the behalf of the Sicangu Lakota Oyate.

I am authorizing the RST Climate Change Working Group to request funding from the Bureau of Indian Affairs or any federal, state, or national resource. The group is required to submit monthly reports and updates to the President's Office. Please keep me informed of any issues needing my attention to my office or RST Council. We need to be proactive in preparing what lies ahead regarding climate change. There are many reports on adverse climate change that may affect our tribe as well as the Oceti Sakowin and other tribes. There may be severe weather changes such as droughts, tornadoes, and floodings that we need to prepare for.

**RST CLIMATE CRISIS  
WORKING GROUP  
CREATED:  
AUGUST 06, 2019**



# Tokatakiya Wowayanke - Vision Statement

---

***“Unkiye ca lel unkanihi pi. Wakinyan heunca pi. Wiwila hena unkowaja pi nahan unkitawa pi. Mni hena unkiye etan u.”***

***“It was us who brought you here. We are Thunder-Beings. The springs are here because of us and belong to us. This water comes from us.”***

--Statement from a Thunder-Being in purification ceremony

In 1878, the Sicangu Bands settled at what was to be their final Agency at Rosebud Creek, located at present day Rosebud, South Dakota. It was the Thunder-Beings who guided the Wicasa Wakan or Holy Men to the Maka Izita Opaya Wakpala, or the Smoky Earth River Valley, because of the abundance of spring water. The Little White River Valley is understood to be the “Wizipan” or the buffalo hide container used to store the necessities of life. This environmental Wizipan ecosystem contains water and aquatic life, plants for food and medicine, wildlife and winged, and forests for wood and shelter. It is held in the same high regard as the Black Hills with sacred sites and unmarked burials.

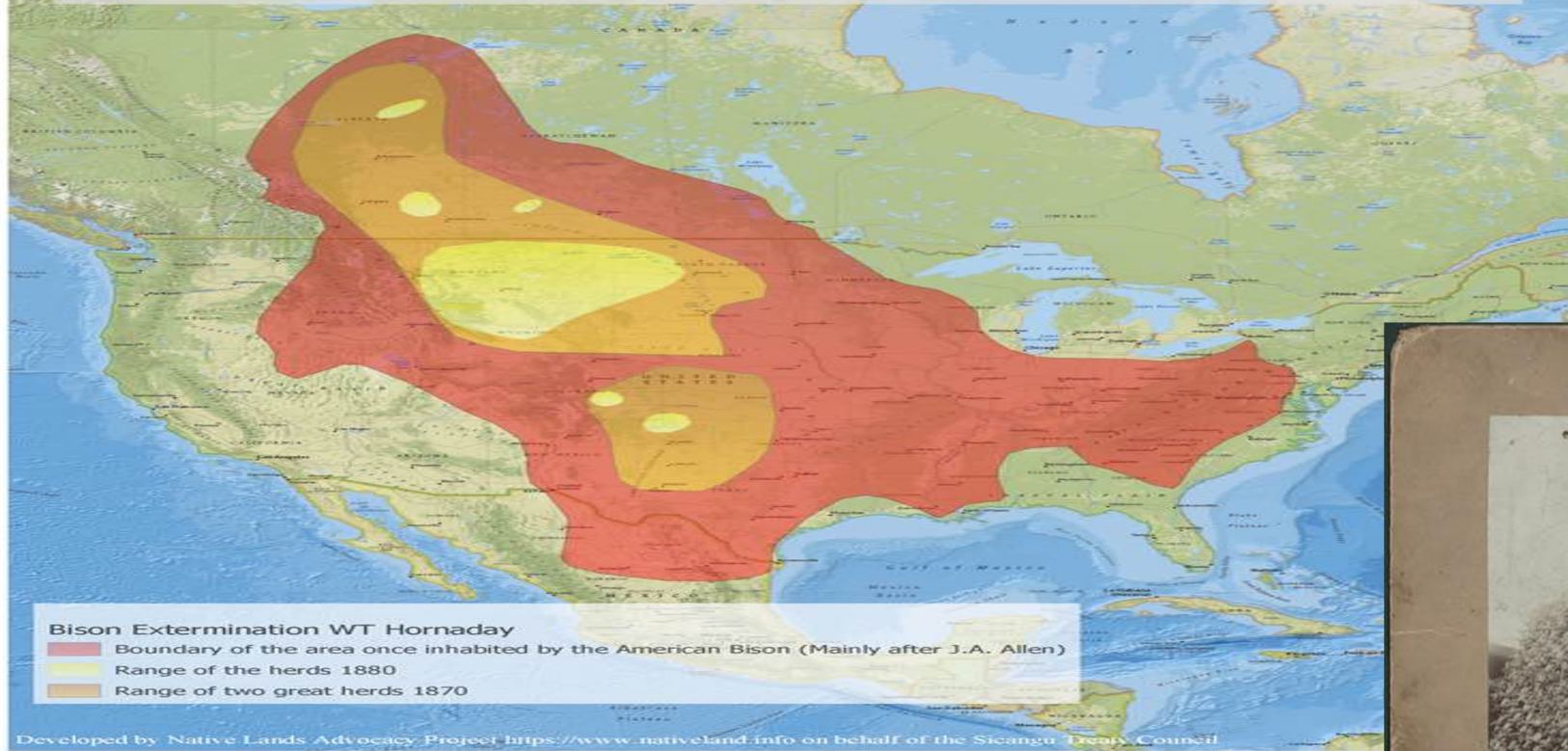


# Ancestral Homelands of the Oceti Sakowin





## Extinction of the American Bison William T. Hornaday (1889)



At the close of the 18th century, there were between 30 and 60 million bison on the continent. By the time of this photograph, that population was reduced to under 500.

The most famous photograph of bison extermination is a grisly image of a mountain of bison skulls. It was taken outside of Michigan Carbon Works in Rougeville, Mich., in 1892.





# FORT LARAMIE TREATIES 1851 - 1868





# FORT LARAMIE TREATY OF 1851

- **ARTICLE 6.**

- THE PARTIES TO THE SECOND PART OF THIS TREATY HAVING SELECTED PRINCIPALS OR HEAD-CHIEFS FOR THEIR RESPECTIVE NATIONS, THROUGH WHOM ALL NATIONAL BUSINESS WILL HEREAFTER BE CONDUCTED, DO HEREBY BIND THEMSELVES TO SUSTAIN SAID CHIEFS AND THEIR SUCCESSORS DURING GOOD BEHAVIOR.



# ARTICLE II - 1868

- ARTICLE II.  
THE UNITED STATES AGREES THAT THE FOLLOWING DISTRICT OF COUNTRY, TO WIT, VIZ: COMMENCING ON THE EAST BANK OF THE MISSOURI RIVER WHERE THE 46TH PARALLEL OF NORTH LATITUDE CROSSES THE SAME, THENCE ALONG LOW-WATER MARK DOWN SAID EAST BANK TO A POINT OPPOSITE WHERE THE NORTHERN LINE OF THE STATE OF NEBRASKA STRIKES THE RIVER, THENCE WEST ACROSS SAID RIVER, AND ALONG THE NORTHERN LINE OF NEBRASKA TO THE 104TH DEGREE OF LONGITUDE WEST FROM GREENWICH, THENCE NORTH ON SAID MERIDIAN TO A POINT WHERE THE 46TH PARALLEL OF NORTH LATITUDE INTERCEPTS THE SAME, THENCE DUE EAST ALONG SAID PARALLEL TO THE PLACE OF BEGINNING; AND IN ADDITION THERETO, ALL EXISTING RESERVATIONS OF THE EAST BANK OF SAID RIVER, SHALL BE AND THE SAME IS, SET APART FOR THE ABSOLUTE AND UNDISTURBED USE AND OCCUPATION OF THE INDIANS HEREIN NAMED, AND FOR SUCH OTHER FRIENDLY TRIBES OR INDIVIDUAL INDIANS AS FROM TIME TO TIME THEY MAY BE WILLING, WITH THE CONSENT OF THE UNITED STATES, TO ADMIT AMONGST THEM; AND THE UNITED STATES NOW SOLEMNLY AGREES THAT NO PERSONS, EXCEPT THOSE HEREIN DESIGNATED AND AUTHORIZED SO TO DO, AND EXCEPT SUCH OFFICERS, AGENTS, AND EMPLOYEES OF THE GOVERNMENT AS MAY BE AUTHORIZED TO ENTER UPON INDIAN RESERVATIONS IN DISCHARGE OF DUTIES ENJOINED BY LAW, SHALL EVER BE PERMITTED TO PASS OVER, SETTLE UPON, OR RESIDE IN THE TERRITORY DESCRIBED IN THIS ARTICLE, OR IN SUCH TERRITORY AS MAY BE ADDED TO THIS RESERVATION FOR THE USE OF SAID INDIANS, AND HENCEFORTH THEY WILL AND DO HEREBY RELINQUISH ALL CLAIMS OR RIGHT IN AND TO ANY PORTION OF THE UNITED STATES OR TERRITORIES, EXCEPT SUCH AS IS EMBRACED WITHIN THE LIMITS AFORESAID, AND EXCEPT AS HEREINAFTER PROVIDED.



# ARTICLE 5

- THE TERRITORY OF THE SIOUX OR DAHCOTAH NATION, COMMENCING THE MOUTH OF THE WHITE EARTH RIVER, ON THE MISSOURI RIVER: THENCE IN A SOUTHWESTERLY DIRECTION TO THE FORKS OF THE PLATTE RIVER: THENCE UP THE NORTH FORK OF THE PLATTE RIVER TO A POINT KNOWN AS THE RED BUTE, OR WHERE THE ROAD LEAVES THE RIVER; THENCE ALONG THE RANGE OF MOUNTAINS KNOWN AS THE BLACK HILLS, TO THE HEADWATERS OF HEART RIVER; THENCE DOWN HEART RIVER TO ITS MOUTH; AND THENCE DOWN THE MISSOURI RIVER TO THE PLACE OF BEGINNING.



# Creation Stories - Out of Many, One

Teaching the importance of protecting Unci Maka and all living life forms from greed and domination

---

## Inyan Kaga and the Creation of Unci Maka

"The making of Unci Maka (Grandmother Earth) and Mahpiyato Skan (water). In the beginning, there was nothing, except for Inyan (rock), wrapped in the deepest han (darkness). Inyan had great spiritual powers, especially in his blue colored blood, but he longed for companionship. He let his blue blood flow from him to create Maka (earth), and as he watched his blood flow out to the ends of the earth, he called it Mahpiyato Skan, the blue mover. As his powers flowed out, Inyan became an eerie stand of molten rock called Tunkan and when the humans were created from what was left, they called this Tunkansila (grandfather). Tunkansila is the oldest thing known to humans and this term was appropriate. The humans call Unci Maka (grandmother), the next oldest thing, and this was appropriate. The act of creating Unci Maka and Mahpiyato Skan is called Inyan Kaga.



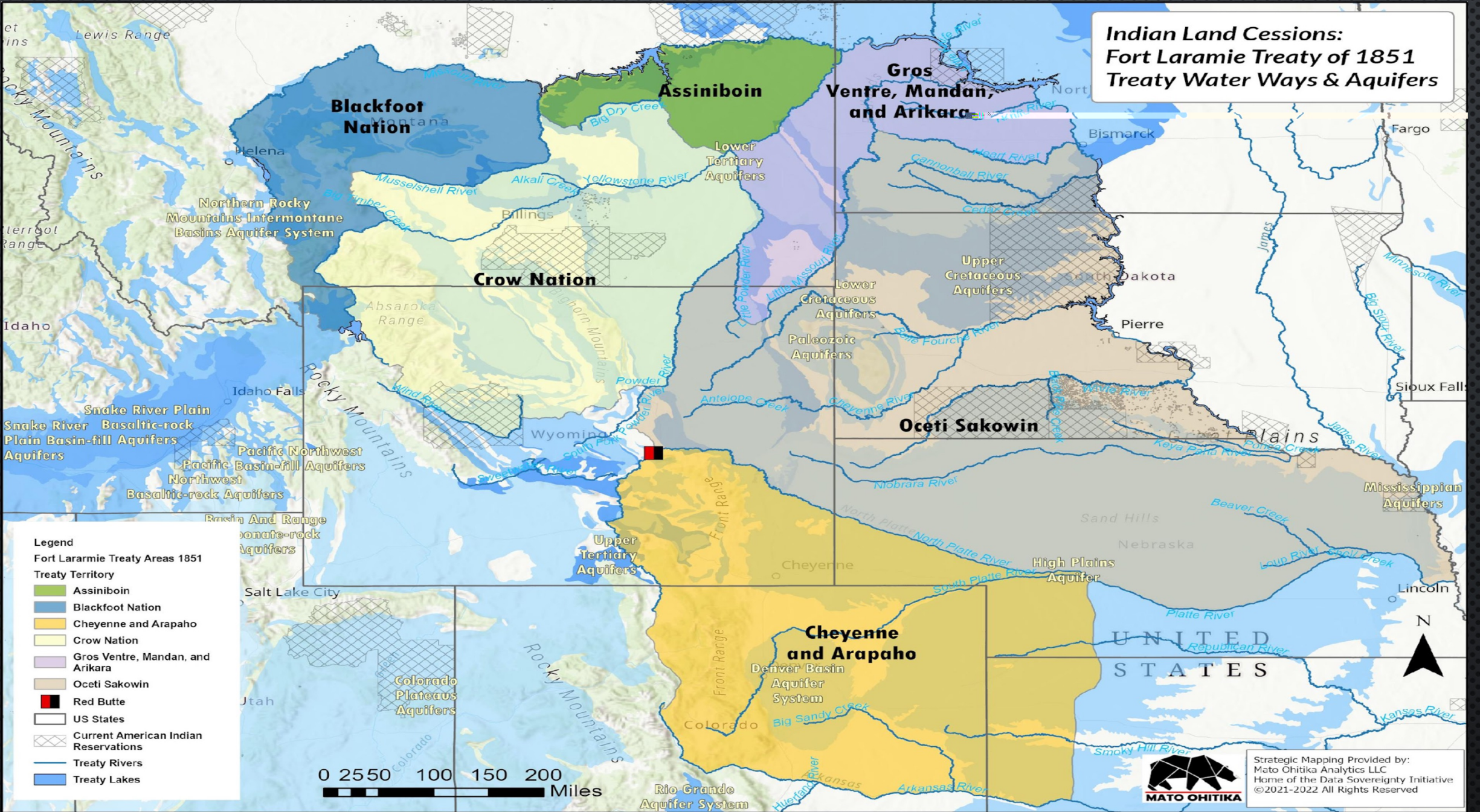
# Indian Land Cessions: Fort Laramie Treaty of 1851



Strategic Mapping Provided by:  
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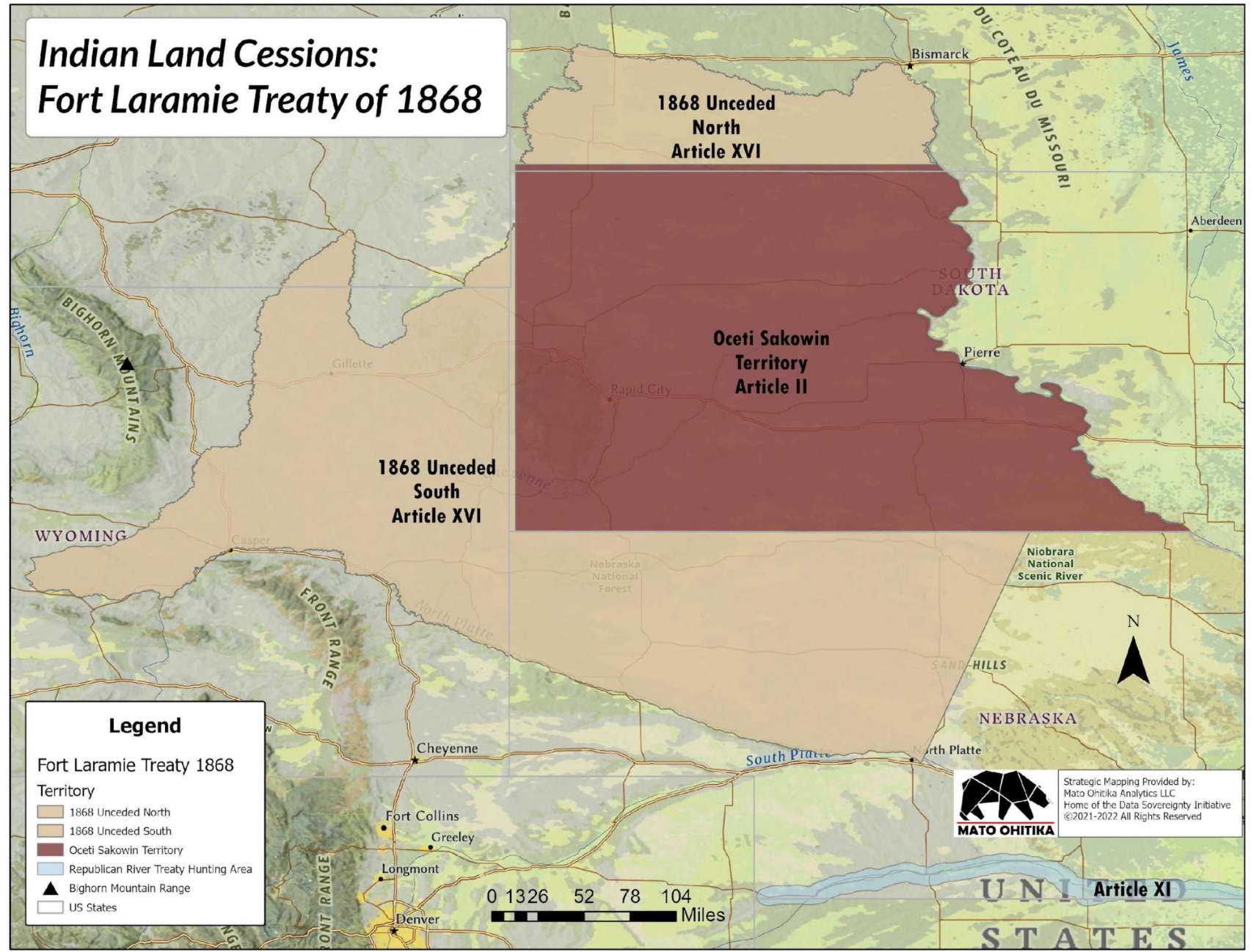
**Indian Land Cessions:  
Fort Laramie Treaty of 1851  
Treaty Water Ways & Aquifers**



Strategic Mapping Provided by:  
Mato Ohitika Analytics LLC  
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# Indian Land Cessions: Fort Laramie Treaty of 1868




**Legend**

Fort Laramie Treaty 1868

Territory

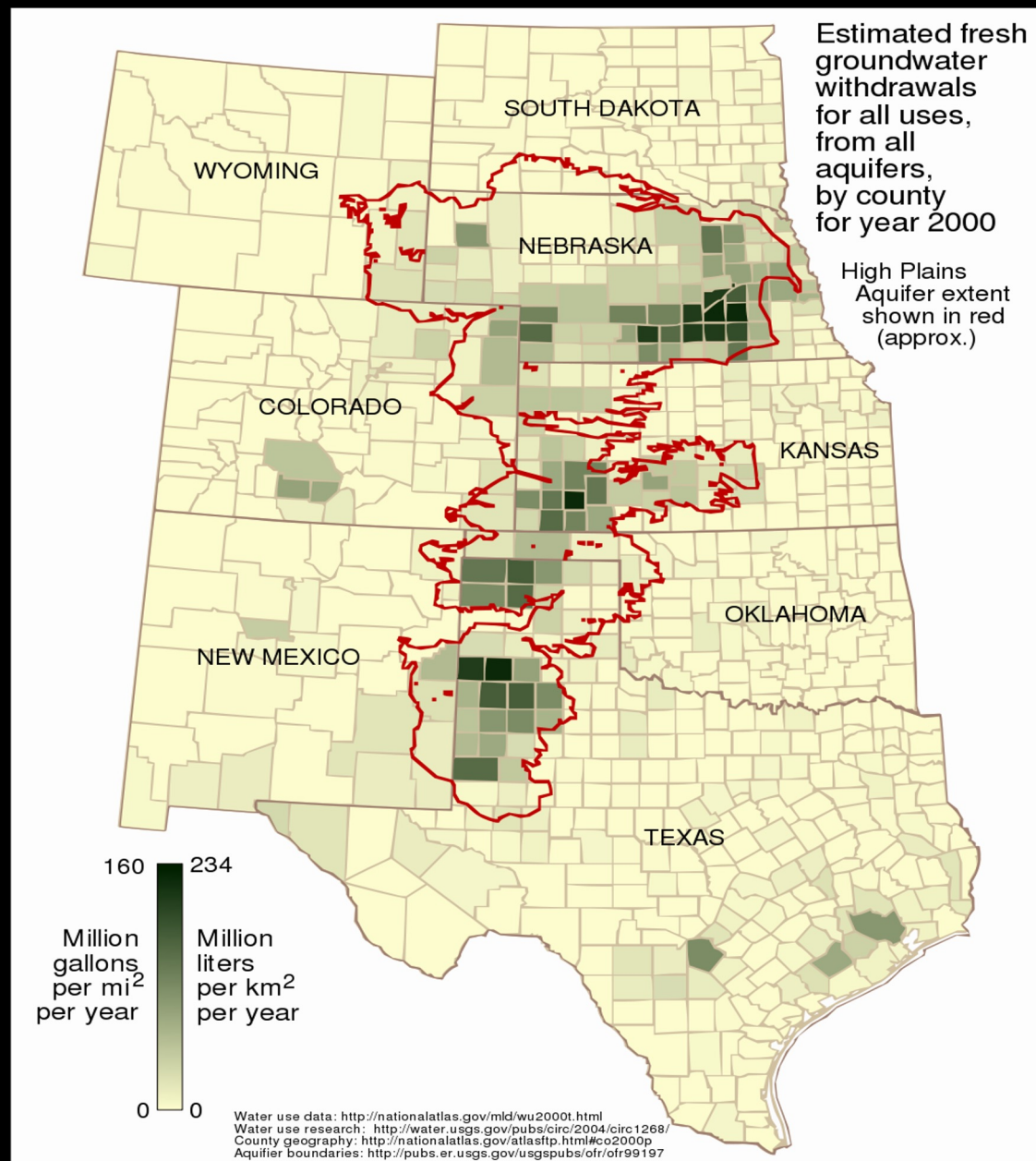
- 1868 Unceded North
- 1868 Unceded South
- Ojibwa Territory
- Republican River Treaty Hunting Area
- Bighorn Mountain Range
- US States

Strategic Mapping Provided by:  
Mato Ohiika Analytics LLC  
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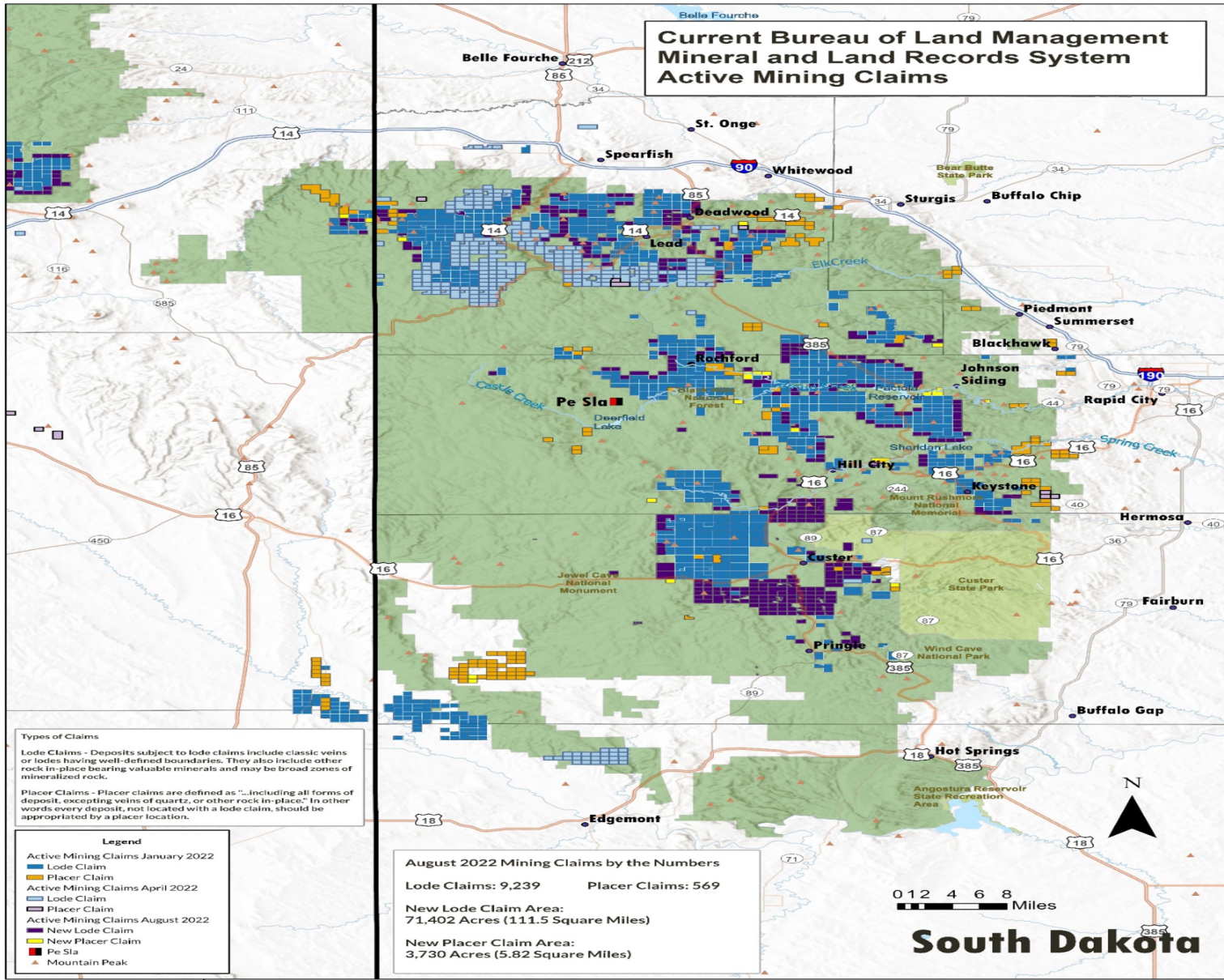
**MATO OHIIKA**







# Current Bureau of Land Management Mineral and Land Records System Active Mining Claims



**Types of Claims**

**Lode Claims** - Deposits subject to lode claims include classic veins or lodes having well-defined boundaries. They also include other rock in-place bearing valuable minerals and may be broad zones of mineralized rock.

**Placer Claims** - Placer claims are defined as "...including all forms of deposit, excepting veins of quartz, or other rock in-place." In other words every deposit, not located with a lode claim, should be appropriated by a placer location.

- Legend**
- Active Mining Claims January 2022
  - Lode Claim
  - Placer Claim
  - Active Mining Claims April 2022
  - Lode Claim
  - Placer Claim
  - Active Mining Claims August 2022
  - New Lode Claim
  - New Placer Claim
  - Pe Sla
  - Mountain Peak

**August 2022 Mining Claims by the Numbers**

Lode Claims: 9,239      Placer Claims: 569

New Lode Claim Area:  
71,402 Acres (111.5 Square Miles)


New Placer Claim Area:  
3,730 Acres (5.82 Square Miles)

0 1 2 4 6 8 Miles

**South Dakota**



Strategic Mapping Provided by:

 Mato Ohitika Analytics LLC  
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South Dakota Study Area  
BLM Mining Claims  
Paha Sapa  
(Black Hills, South Dakota)  
August 3, 2022

MAPBOOK  
BLM Mining Claims  
Lode Claims / Placer Claim  
Updated Claims  
Q3 2022



# INPUT FROM THE OYATE (despite Covid)

1) Community Meetings

2) Community Survey

3) Tribal Government

4) Elder Interviews



Oyate Input with SCCWG Guidance



**THIS WEEK!  
VIRTUAL COMMUNITY  
MEETINGS ON CLIMATE  
CHANGE**

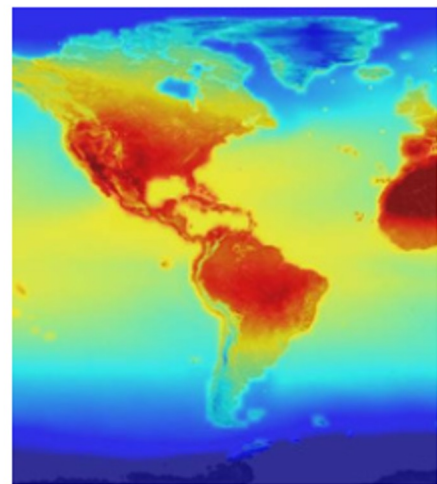
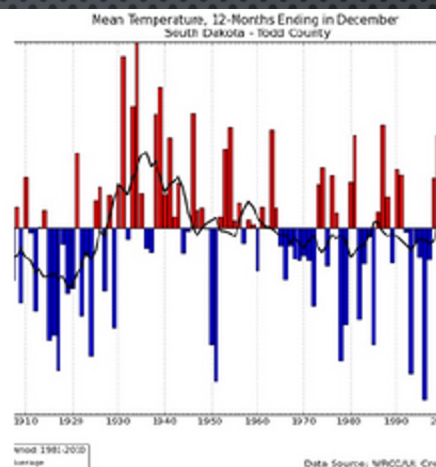
**IDEAL - Tuesday 5/25  
@ 10am**

**BUTTE CREEK -  
Wednesday 5/26 @ 10am**

**OKREEK - Wednesday  
5/26 @ 2pm**

**ANTELOPE - Thursday  
5/27 @ 10am**

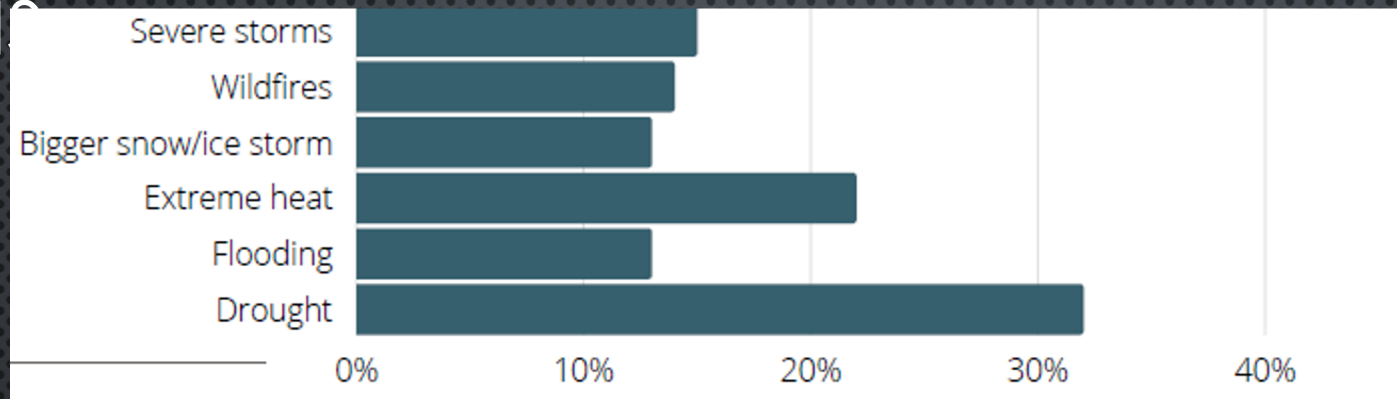
*Join the ZOOM Call via the  
Sicangu Climate Crisis Working Group Facebook Page  
Or +1 812 626 6799 X 450-125 2185  
DURING THE MEETING TIMES ABOVE*





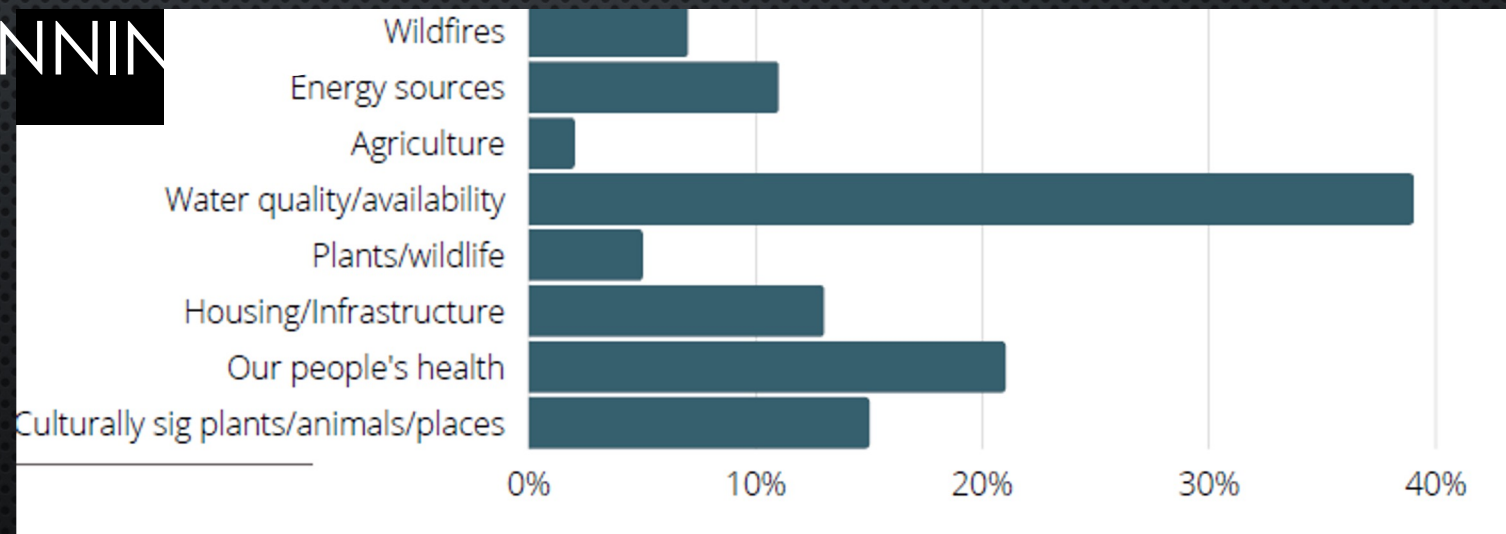
# CONCERN

NO



# WHAT TO FOCUS

PLANNING





# RST Government expertise

Syed Huq Director, Water Department

Joe Ross, RST Ranch Manager

Paula Wopilawin Antoine, Director, Sicangu Oyate Land Office

Pam Giroux, Director, Rosebud Elder Care

Ken Haukaas, Director, Forestry Department

Alexander Swalley, Director, Environmental Protection Department

Wayne Bear Shield, Director, Facilities Management,

Caroline Horse Looking, Director, RST Enrollment

Ione Quigley, Tribal Historic Preservation Officer

Robert Oliver, Director, Dam Safety, Emergency Response

Wizipan Little Elk, Executive Director, REDCO [now with BIA]

Tony Rogers, Director, Tribal Utility Commission

Skyla Fast Horse, Director, Health Department



**Protect the Oyate**

**Protect and Wisely Use our Water**

**Protecting the Land and Living**

**Relatives**



# Four Highlighted Recommendations

**Establish a permanent tribal office led by a Chief Climate Officer**

**Plan and build capacity to address human needs in weather emergencies.**

**Implement the Rosebud Drought Adaptation and Mitigation Plan**

**Establish a Sicangu Lakota Oyate Environmental Data and Decisions Center for focused information and sovereignty for the land and living relatives**



# PROTECTING THE OYATE

Establish a permanent tribal department and Oyate Climate Itacan  
Enhance tribal capacity to protect life and property among the Sicangu Lakota Oyate

Weather emergencies – plan for flooding and tornadoes

Local weather warning system

Reliable heating and cooling

Community centers as warm/cooling stations

Wellness checks

Consider rooftop solar

Consider higher building codes



# **PROTECTING AND WISELY USING OUR WATER**

RST has legal access to Missouri River water

Reservation sits atop major aquifer

BUT -- contamination, control, over-use, drought impacts, pose dangers

**Adopt and implement the Rosebud Tribal Water Code**

**Fully implement the Rosebud Drought Adaptation and Mitigation Plan**

**Expand characterization and monitoring of Rosebud water**



# PROTECTING THE LAND AND LIVING RELATIVES

## Establish a Sicangu Climate Center for focused information and sovereignty for the land and living relatives

Clean up the Reservation

Expand food sovereignty, local markets, processing facilities

Promote habitat conservation

Reduce overgrazing

Understand the impacts of climate change on forests and grasslands

Plant more trees

Track forage production and use

Preserve sacred plants, at-risk species, and consider when development occurs



# SICANGU CLIMATE CENTER (SCC) GRANT

ENABLES US TO BUILD A  
CLIMATE DATA SYSTEM  
THAT WE OWN AND  
CONTROL TO SUPPORT  
OUR VISION,  
SOVEREIGNTY, PEOPLE.



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Washington, D.C. 20240

October 28<sup>th</sup>, 2022

The Honorable Scott O. Herman  
President, Rosebud Sioux Tribe  
P.O. Box 430  
Rosebud, South Dakota 57570

Dear President Herman,

On behalf of the Bureau of Indian Affairs (BIA), Office of Trust Services – Branch of Tribal Climate Resilience (TCR), we are pleased to inform you that the Category 10, Implementation of Climate Adaptation Strategies proposal for your “Sicangu Climate Center” project has been approved in the amount of \$1,681,224.00. If you have questions about this amount, please contact your TCR Regional Coordinator or your assigned TCR Regional point-of-contact (their contact information has been provided below). The Department of the Interior's decision is final. Congratulations on being awarded this grant and thank you for pursuing climate resilience for your community.

The funds will be processed as a self-determination contract or a self-governance compact, as authorized under the Infrastructure Investment and Jobs Act (Public Law 117-58), Continuing Appropriations for fiscal year 2022 (Public Law 117-43), the Further Extending Government Funding Act (Public Law 117-70), Consolidated Appropriations Act of 2022 (P.L. 117-103), 25 U.S.C. 2, and the Snyder Act (25 U.S.C. 13), as amended, Indian Self Determination and Education Assistance Act (ISDEAA), 25 U.S.C.5301 et. seq. Tribal organizations, as defined at 25 U.S.C. 5304(l) are eligible for funding. All project proposals must have Tribal resolution(s) supporting their requests in order to receive funding to enter into an ISDEAA Self-Determination contract under Title III or Self-Governance compact under Title III. Any award under this announcement does not guarantee future funding of any kind, including future BIA Tribal Climate Resilience announcements.

TCR has assigned Diane Mann-Klager to serve as the Bureau Project Officer (BPO) on this award. The BPO may be reached at Diane.Mann-Klager@bia.gov or by phone at 605-252-6763. The BPO will be available to discuss or advise on technical issues of the project as they arise. In addition, all written correspondence concerning the project should be addressed to both your BPO and the regional Awarding Official's Technical Representative (AOTR) if they are not the same person. This includes correspondence on the required annual and final reports. Your AOTR will be reaching out to you soon regarding final details and for self-determination or self-governance support on initiating your award. Please note that all final decisions to approve or decline a request are the responsibility of the Awarding Official (AO). We wish you every success in your work.

For your reference, the complete list of awards and highlights from the FY 2022 RFP will soon be found on the TCR Annual Awards Program web page: <https://www.bia.gov/service/tcr-annual-awards-program>. A Tribal climate resource of potential interest is the availability of technical assistance at the DOI Climate Adaptation Science Centers (CASC)s: <https://casc.usgs.gov/>. Each CASC in the continental U.S. and Alaska has a Tribal Climate Resilience Liaison dedicated to serving Tribal Nations. The Liaison(s) in your CASC Region is/are Stefan Tangen (Stefan.G.Tangen@gmail.com) and Kynser Wahwahsuck (Kynser.Wahwahsuck@colorado.edu). These liaison(s) are a great network to connect with; you may contact



# TRIBAL CLIMATE CENTER (TCC) GRANT

# IS A CONTINUATION OF THE WORK OF THE CLIMATE CHANGE WORKING GROUP.



## ROSEBUD SIOUX TRIBE

PO Box 430  
Rosebud, SD 57570  
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Rodney Bordeaux, President  
Scott Herman, Vice President  
Louis Wayne Boyd, Treasurer  
Linda L. Marshall, Secretary  
Edward Clairmont, Sergeant-at-Arms

August 6, 2019

### MEMORANDUM

To: Phil Two Eagle, SLTC  
Syed Huq, Water Resource  
Ivan Crow Eagle, Environmental Office  
Paula Antoine, Sicangu Oyate Land Office  
Ken Haukaas, RST Forestry  
Frank Vanderwalker, Natural Resources  
Tony Rogers, RST Utility Commission  
Ken LeDeaux, Sicangu Resource Development

From: Rodney M. Bordeaux, RST President

A handwritten signature in blue ink, appearing to read "Rodney M. Bordeaux".

Re: Climate Change Working Group

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# TRIBAL CLIMATE CENTER GOAL: PROTECTING THE LAND AND LIVING RELATIVES

Establish a Sicangu Climate Center for focused information and sovereignty for the land and living relatives

## TCC Data Foundation to Support Realization of the Vision

Clean up the Reservation

Expand food sovereignty, local markets, processing facilities

Promote habitat conservation

Reduce overgrazing

Understand the impacts of climate change on forests and grasslands

Plant more trees

Track forage production and use

Preserve sacred plants, at-risk species, and consider when



# TRIBAL CLIMATE CENTER PROJECT

## GOAL:

### PROTECTING AND WISELY USING OUR

### WATER

RST has legal access to Missouri River  
water

Reservation sits atop major aquifer

BUT -- contamination, control, over-use, drought impacts,  
pose dangers

**Adopt and implement the Rosebud Tribal Water Code**

**Fully implement the Rosebud Drought Adaptation and**

**Mitigation Plan**

**TCC Data Foundation to Support Realization of the Vision**

**Expand characterization and monitoring of Rosebud water**



THE SICANGU CLIMATE CENTER data will be ours, and the technology secure so that we can maintain sovereignty over the data that helps to tell the story of our land, our people, our vision and our intentions.

## Community, Climate, Energy & Food Security

The TRIBAL CLIMATE CENTER Platform will share core technology with external stakeholders



Context Labs' Immutably™ deployment was selected in 2021 to satisfy The National Geospatial Intelligence Agency's Mission

We will:

- Best in class performance for satellite imagery chain of custody services
- Platform for digital identity, image /metadata manipulation detection
- Ensure provenance and veracity of any satellite data



Context Labs' was selected as one of 35 permanent partners of the National Institute of Standards and Technology (NIST)

We will:

- Develop and define best practices for critical infrastructure cyber resilience
- Safeguard the protection of the US energy, water/wastewater and transportation grids

**Furthering our climate and energy security partnerships:**



US National Lab

- Solar Inverter Digital Twin Program
- Cyber & climate performance integrity
- Risk management functional support



Smart Energy Power Alliance (SEPA)

- Critical Cyber Physical Asset Interoperability Program for Solar Assets



Paula Antoine,  
Director  
Sicangu Oyate Land Office  
Member: Sicangu Climate Crisis Working Group