

**ROSEBUD SIOUX TRIBE**  
**Resolution No. 2020-209**

**WHEREAS**, the Rosebud Sioux Tribe is a federally recognized Indian tribe organized pursuant to the Indian Reorganization Act of 1934 and all pertinent amendments thereof; and

**WHEREAS**, the Rosebud Sioux Tribe is governed by the Tribal Council made up of elected representatives who act in accordance with the powers granted to it by its Constitution and By- Laws; and

**WHEREAS**, BIA has funded three special water projects for Rosebud Sioux Tribe in FY 20 namely: (1) Estimation of Natural Stream Flow Phase 2 - \$ 79,000.00 (2) Integrated Environmental Management Plan Annual updates - \$ 7,500.00 and (3) Surface Water quantification project and stream flow gauging - \$ 65,000.00; and

**WHEREAS**, the three projects were submitted to BIA with the cover letter signed by the Tribal President including the workplans and budgets (copy of them are attached); and

**WHEREAS**, BIA accepted the proposals and funded the above projects but needs a Tribal Council Resolution affirming their knowledge and ratification; and

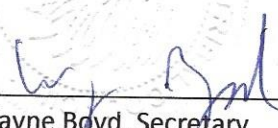
**WHEREAS**, the three projects will be carried out in cooperation with USGS on (1) and (3) and with GPTWA and Banner Associates are (2); and

**NOW THEREFORE BE IT RESOLVED**, the Tribal Council approves the Committee's recommendation and directs the Tribal President to sign the change orders/agreement with BIA on the three projects and direct the RST Water Resources Program for implementation.

**CERTIFICATION**

This is to certify that the above Resolution No. 2020-209 was duly passed by the Rosebud Sioux Tribal Council in session on September 9, 2020, by a vote of sixteen (16) in favor, zero (0) opposed and one (1) not voting. The said resolution was adopted pursuant to authority vested in the Council. A quorum was present.

**ATTEST:**

  
\_\_\_\_\_  
Wayne Boyd, Secretary  
Rosebud Sioux Tribe

  
\_\_\_\_\_  
Rodney M. Bordeaux, President  
Rosebud Sioux Tribe

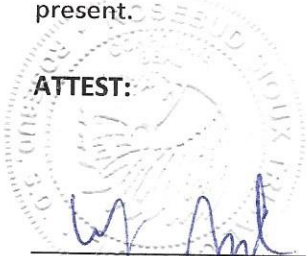
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\_\_\_\_\_  
Wayne Boyd, Secretary  
Rosebud Sioux Tribe

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

\_\_\_\_\_  
Rodney M. Bordeaux, President  
Rosebud Sioux Tribe



# United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Rosebud Agency

Post Office 228

Mission, South Dakota 57555

IN REPLY REFER TO:  
Administration

**SEP 29 2020**

Honorable Rodney Bordeaux  
President, Rosebud Sioux Tribe  
Post Office Box 430  
Rosebud, South Dakota 57570

Attention: Louis Wayne Boyd, Rosebud Sioux Tribe Secretary

Dear President Bordeaux:

The following resolutions received in this office on 09/25/2020, have been reviewed and routed to the appropriate branches.

Resolution No. 2020-143 (Amended: 09/09/2020)

Resolution No. 2020-204

Resolution No. 2020-155 (Amended: 09/09/2020)

Resolution No. 2020-206

Resolution No. 2020-163

Resolution No. 2020-208

Resolution No. 2020-173 (Amended: 08/21/2020)

Resolution No. 2020-209

Resolution No. 2020-203

Sincerely,

Ira Dean Wilson  
Superintendent

Enclosure



**ROSEBUD SIOUX TRIBE**  
**Resolution No. 2020-209**

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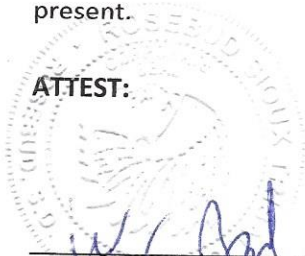
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Wayne Boyd, Secretary  
Rosebud Sioux Tribe

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\_\_\_\_\_  
Rodney M. Bordeaux, President  
Rosebud Sioux Tribe

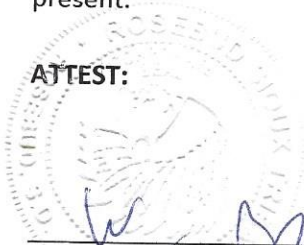
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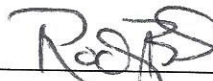
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Wayne Boyd, Secretary  
Rosebud Sioux Tribe

  
Rodney M. Berdeaux, President  
Rosebud Sioux Tribe



# Rosebud Sioux Tribe

*Sicangu Oyate*

P.O. Box 430

Rosebud, SD 57570

Phone: (605) 747-2381 – Fax: (605) 747-2243

Rodney Bordeaux  
President  
Scott Herman  
Vice President  
Wayne Boyd  
Treasurer  
Linda Marshall  
Secretary  
Edward Clairmont  
Sergeant-At-Arms

August 26, 2019

Mr. Wayne Stone  
BIA Area Office  
115 4<sup>th</sup> Ave SE  
Aberdeen, South Dakota 57401

Subject: Water Resources proposal for FY 2020 funding

Dear Mr. Stone:

Two proposals have been developed with assistance from USGS for submission to BIA for funding in FY2020. We request that you review and recommend for approval so that these important projects are funded by BIA. We will provide an appropriate Tribal Council Resolution.

If you have any questions or comments, please give Syed Huq, Director Water Resources a call at 605-747-2559. Thank you.

Sincerely,

Rodney Bordeaux, President  
Rosebud Sioux Tribe



**BUREAU OF INDIAN AFFAIRS  
FY 2020 FUNDING REQUEST  
Water Resources Planning, Management, and Pre-Development (N3420) Proposal  
Great Plains Regional Office**

1. **Date of Request:** August 15, 2019
2. **Tribe and Reservation Name:** Rosebud Sioux Tribe (RST); Rosebud Reservation, South Dakota; on behalf of Cheyenne River, Oglala, Rosebud, and Standing Rock Sioux Tribes.
3. **Project Name and Purpose:** Estimation of naturalized streamflow for selected rivers in western North Dakota and South Dakota, phase 2. The purpose is to estimate naturalized (or pre-development) streamflow for major rivers relevant to tribes in western ND and SD. Naturalized flows will be estimated by accounting for primary effects of human influence on streamflow and will have utility relative to ecological and water rights considerations. Requested funds will be for completing a second project phase that was initiated with funds from the Fiscal Year (FY) 2017 and 2018 awards. The first phase was completed with funds from previous awards.
4. **Funding Amount Requested:** \$79,000
5. **Type of Request:** Water Resources Management/Planning/Pre-Development
6. **Project Manager Name and Contact Information:**

Syed Huq, <a href="mailto:shuq@sicangu.com">shuq@sicangu.com</a> Director, Water Resources Department Rosebud Sioux Tribe	P.O. Box 430 Rosebud, SD 57570 Phone (605) 747-2559; Fax (605) 747-5039
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7. **Name and Contact Information of Person Preparing the Request:**

Syed Huq, ( <i>info above</i> ) and Dan Driscoll, <a href="mailto:dgdrisco@usgs.gov">dgdrisco@usgs.gov</a> Hydrologist, U.S. Geological Survey	1608 Mt. View Road, Rapid City, SD 57702 Phone (605) 394-3211; Fax (605) 355-4523
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8. **Project Description:**

**Background:** Flows of many of the rivers and streams in western North Dakota and South Dakota are highly affected by various types of regulating factors that may include, but not necessarily be limited to surface-water or ground-water withdrawals, evaporation from dams and reservoirs, and effects of reservoir operations on the timing of streamflow. Some of the regulating factors may occur within reservation boundaries; however, most of the regulation typically occurs upstream from the reservations. The altered flows reaching reservation boundaries may be substantially smaller than natural, or pre-development flows, with obvious implications relative to availability of streamflow for utilization by the tribes. Subtler effects may include altered timing of flows, potential for altered water quality, and numerous ecological implications relative to aquatic habitat and the entire aquatic food chain from micro-organisms on up to fishery populations, waterfowl, and aquatic mammals.

**Scope of Work:** The scope will include the major rivers within the Cheyenne River, Pine Ridge, Rosebud, and Standing Rock Reservations (fig. 1). This will include, from north to south, the Cannonball, Grand, Moreau, Cheyenne, White, Little White, and Keya Paha Rivers. Although the primary focus will be on estimating naturalized flows for selected key locations within these primary river systems, it will be efficient and useful to also include a basic compilation of streamflow data for all available streamgages within and near these reservations. This will allow tribes to conduct "network analyses" or scrutiny of the streamgaging networks, which could include evaluating the utility of streamgages currently in operation, consideration for possible future operation of discontinued streamgages, and consideration for possible new locations for streamgages.

For estimating naturalized flows, the scope likely will be to account only for (1) effects of surface-water withdrawals, (2) evaporation from large reservoirs located on main-stem streams or rivers, and (3) effects on timing of flow from the large main-stem reservoirs for which records of reservoir operations are available. Ground-water withdrawals will not be accounted for because these are relatively minor for most of the river systems of interest and because of myriad complexities involved in accounting for ground-water withdrawals. Thousands of small reservoirs are located within the river systems of interest, and effects on streamflow can be highly variable and unpredictable, depending on climatic conditions and associated runoff and evaporation



conditions. Thus, accounting will be limited to the large reservoirs located on main-stem river or stream reaches, for which a reasonable and defensible level of accounting accuracy can be obtained.

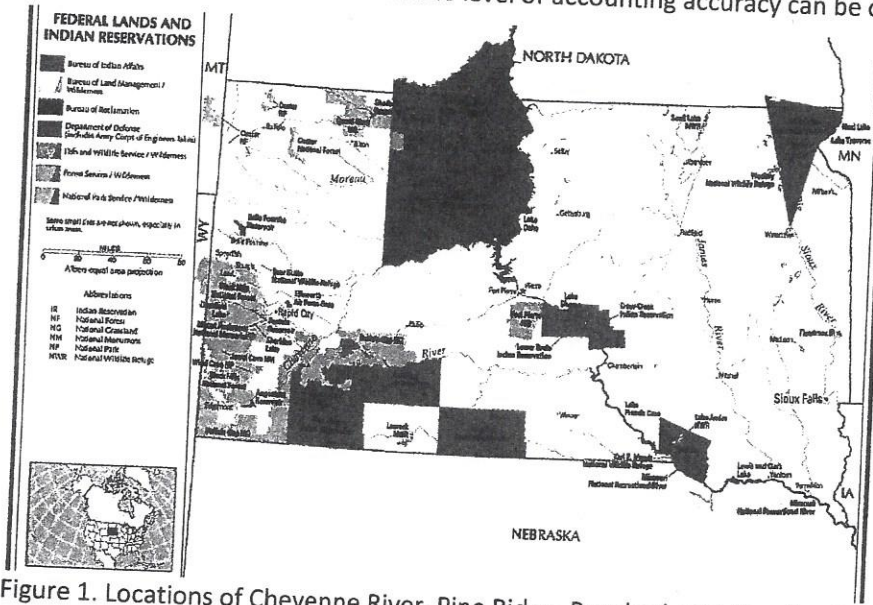


Figure 1. Locations of Cheyenne River, Pine Ridge, Rosebud, and Standing Rock Reservations.

**B. Proposed Methodology:** The planned approach includes three phases. The first phase was completed with funds from the FY 2016 and 2017 awards and consisted primarily of data acquisition and compilation for three primary data sets: streamflow, climate, and water rights data. Relevant data for all USGS streamgages that have been operated within the applicable reservations have been retrieved and compiled for considerations relative to network analyses. Applicable streamflow data for tributaries beyond the reservation boundaries also have been assembled for estimating naturalized flows. Climate data from the publicly available Parameter-elevation Relationships on Independent Slopes Model (PRISM) are being used to characterize climatic influences on streamflow, and to separate climatic influences from effects of regulation. Water rights data for surface-water withdrawals have been obtained for applicable river and stream reaches in Nebraska, North Dakota, South Dakota, and Wyoming.

This proposal is to continue the second phase, which was initiated with funds from the FY 2017 and 2018 awards. This phase consists of compiling appropriate statistics and summary information for streamflow and climate data, characterizing climatic influences on streamflow, and estimating naturalized flows, which is the primary project thrust. The third (and final) project phase will first involve providing the preliminary analyses to appropriate parties to be reviewed for completeness, accuracy, and appropriateness of analytical methods used. Appropriate parties may include (1) participating tribes; (2) the Water Rights Program within the South Dakota Department of Environment and Natural Resources; (3) the North Dakota Water Commission; (4) the Bureau of Reclamation, which operates many of the larger reservoirs within the study area; (5) BIA; and (6) any other parties deemed appropriate through discussions with the participating tribes. A completion report providing all appropriate information and results also will be written, peer reviewed, and published as part of the third phase.

Following are specific tasks to be undertaken and completed during the second project phase.

**Task 1** – Finish development of appropriate approaches for compiling streamflow statistics, characterizing climatic influences on streamflow, and estimating naturalized flows. This task was initiated with funding from FY 2017 (\$8,000) and 2018 (\$24,000); however, \$8,000 is still needed to complete this task.

**Task 2** – Apply the statistical approaches developed under Task 1 and provide preliminary compilations and statistical summaries to tribes for review and for use in network analyses.

**Task 3** – Characterize climatic influences on streamflow, which will be considered for estimation of and extrapolation of streamflow records, where applicable (Task 4).

**Task 4** – Estimation of missing streamflow records and extrapolation of streamflow records, where applicable, which will be used in estimation of naturalized flow (Task 5).



**Task 5** – Develop estimates of naturalized flow for applicable streamgages. This will be done by accounting for (1) effects of documented surface-water withdrawals, (2) evaporation from large reservoirs, and (3) effects on timing of flow from the large main-stem reservoirs for which records of reservoir operations are available.

**Task 6** – Project administration and management. This will involve tribal administrative activities and also will include USGS project management activities such as preparation of progress reports and communications with the participating tribes.

**C. Project Deliverables:** Deliverables from the second project phase will be (1) updated versions of the three primary Phase 1 databases (streamflow, climate, and water rights data) and associated GIS layers that likely will be refined as the project continues to develop, (2) estimated streamflow record for applicable streamgages, and (3) preliminary estimates of naturalized flow. The full (three-phase) project will culminate with a published USGS report that will provide estimates of naturalized or pre-development streamflow for the selected rivers of interest.

**D. Description of Past Accomplishments:** This project was initiated with FY 2016 funding. FY 2017 funding was adequate to complete all phase 1 tasks, and also provided \$8,000 to initiate the first task of phase 2. FY 2018 funding provided \$24,000 for continuation of task 1 of phase 2; however, \$8,000 is still needed to complete this task, and the requested FY 2020 funding is needed for completion of phase 2 (FY 2019 request was not funded).

**E. Current Status of Litigation/Negotiation Case:** N/A

**9. Budget Justification and Time Line:**

A budget, by task, is shown in the table below, with planned completion over an 18-month timeframe. Total funding requested from BIA is \$79,000. Of this, \$15,000 will be retained by the tribal consortium for project administration and \$64,000 will be used for a cooperative agreement with USGS. USGS will provide \$32,000 in matching funds, contingent on availability of matching funds.

Task	Description	Time line (months)	Cost
1	Finish development of statistical approaches	1 - 4	<sup>1</sup> \$8,000
2	Apply statistical approaches for streamflow and climate data	4 - 6	\$10,000
3	Characterize climatic influences streamflow	6 - 8	\$10,000
4	Estimation and extrapolation of streamflow records	8 - 10	\$10,000
5	Develop estimates of naturalized flow	10 - 18	\$53,000
6	Project administration and management	1 - 18	\$20,000
<b>Total</b>			<b>\$111,000</b>
<sup>2</sup> Amount requested from BIA			\$79,000
USGS match			\$32,000

<sup>1</sup>\$32,000 provided under partial FY 2017 and 2018 funding increments; \$8,000 is needed to complete this task.

<sup>2</sup>The FY 2018 award provided \$21,000 of \$100,000 requested for full implementation of phase 2; however, the FY 2019 proposal was not funded. Thus, \$79,000 is still needed for completion of phase 2.

**10. History of Funding:**

A. No award in FY 2019 for this project (multi-tribal consortium).

B. \$21,000 in FY 2018 for this project (multi-tribal consortium).

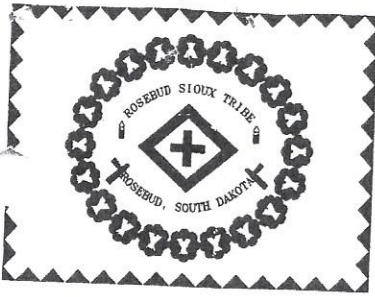
C. \$40,000 in FY 2017 for this project (multi-tribal consortium).

D. Past Years Accomplishments: phase 1 was completed under the FY 2016 and 2017 awards and provided preliminary datasets for streamflow, climate, and water rights for analyses to be conducted in this (second) project phase. Phase 2 has been initiated; however, the FY 2020 funding request is needed for completion.

E. Past 3 Years UDO's (Undelivered Orders): N/A, there have been no Undelivered Orders.

**11. Water Rights Funding Request Information:** This is not a Water Rights Funding Request.

**12. Endorsement of Tribal Leadership:** A letter of support from the Tribal Chairman is attached.



# *Rosebud Sioux Tribe*

*Sicangu Oyate*

*P.O. Box 430*

*Rosebud, SD 57570*

*Phone: (605) 747-2381 - Fax: (605) 747-2243*

*Rodney Bordeaux*  
President  
*Scott Herman*  
Vice President  
*Wayne Boyd*  
Treasurer  
*Linda Marshall*  
Secretary  
*Edward Clairmont*  
Sergeant-At-Arms

August 30, 2019

Mr. Timothy LaPointe  
Regional Director  
Great Plains Regional Office  
Bureau of Indian Affairs  
115 Fourth Ave, SE, Suite 400  
Aberdeen, South Dakota 57401

**RE: FY2020 Water Management, Planning, and Pre-Development Program (N34) Grant Request for Phase III Tribal Water Resources Management Planning for the Great Plains Water Resources Management Plan**

Dear Mr. LaPointe:

We are pleased to submit this grant request on behalf of the Great Plains Tribal Water Alliance (GPTWA). As a member of GPTWA, we have been actively engaged in its work building capacity within our Tribes to be prepared to address the increasingly complex issues of water rights, management, and the protection of Tribal water for the next seven generations.

The GPTWA has worked successfully, particularly with the Oglala Sioux Tribe, Rosebud Sioux Tribe, the Flandreau Santee Sioux Tribe, and the Standing Rock Sioux Tribe, in developing projects that can benefit all the Tribes of the Great Plains Region and beyond. The work in developing water management plans, geospatial data management frameworks, climate assessments, and drought vulnerability assessments, has been done collaboratively, and is contributing greatly to our knowledge of our water resources.

Thank you in advance for your favorable consideration of this grant request. If you have any questions, please contact Syed Huq, Water Resources Director for the Rosebud Sioux Tribe, [shuq@sicangu.com](mailto:shuq@sicangu.com), 605-747-2559.

Sincerely,

**Rodney M. Bordeaux**  
President of the Rosebud Sioux Tribe

cc. Wayne Stone, Water Rights Specialist  
GPTWA Board of Directors



**BUREAU OF INDIAN AFFAIRS**  
**FY 2020 FUNDING REQUEST**  
WATER RIGHTS LITIGATION/NEGOTIATION (R3120)  
WATER MANAGEMENT PLANNING & PRE-DEVELOPMENT (N3420)  
GREAT PLAINS REGIONAL OFFICE

1. **DATE OF REQUEST:** August 31, 2019

2. **TRIBE AND RESERVATION NAME:**  
Rosebud Sioux Tribe of South Dakota,  
Rosebud Indian Reservation, South Dakota

3. **PROJECT NAME AND PURPOSE:** Rosebud Sioux Tribe: Integrated Environmental Management Plan Annual Updates

The primary purpose of the project is to update and further develop the Tribes' Integrated Environmental Management Plan for Water, Culture, and Natural Resources that was previously developed from 2017-2018.

4. **FUNDING AMOUNT REQUESTED:** \$7,500.00

5. **TYPE OF REQUEST:** Water Resource Management Planning & Pre-development  
The Tribe will work with Banner Associates to update the Tribe's Integrated Environmental Management Plan for Water, Culture, and Natural Resources.

6. **PROJECT MANAGER NAME & CONTACT INFORMATION**  
Syed Huq  
Director of Water Resources  
Rosebud Sioux Tribe  
P.O. Box 910  
BIA Road 903 IHS Complex, Rosebud, SD 57570  
Phone (605) 747-2559

7. **NAME AND CONTACT INFORMATION OF PERSON PREPARING REQUEST**  
Syed Huq  
Director of Water Resources  
Rosebud Sioux Tribe  
P.O. Box 910  
BIA Road 903 IHS Complex, Rosebud, SD 57570  
Phone: (605) 747-2559

**8. PROJECT DESCRIPTION**

The Integrated Environmental Management Plan for Water, Culture, and Natural Resources Plan for Water, Culture, and Natural Resources (IEMP) is a living document and second phase of five phases for the Tribe's Water Resource Management Plan. In Phase I (completed in 2017) the Tribe consolidated baseline conditions on the Tribe's water resources for natural water resources and built systems. The information gathered addressed the water resources baseline conditions such as quality, quantity, and reliability whereas, the built systems portions addressed the current condition of infrastructure and all relating information. The second phase (completed first installment of the living document in 2018) originally sought to address beneficial uses of natural and built resources, but later evolved into a document to incorporate summaries of all the resources that the Tribe had and managed while establishing these resources beneficial uses. This proposal is to update the Tribes IEMP: update the Integrated Plans with new/current condition summaries for all resources to ensure the plans are maintained with up-to-date information. Programs/resources that were previously not included will be included in this new version.

a. **Scope of Work for the Project**

The work to be undertaken for the project is to update information that was previously gathered in Phase I and Phase II. Departments that were previously reached out to will be contacted again to aid in the update. The departments that were reached out to, but were unable to respond and provide information will be tried again to fill in the information required by the IEMP. Available data will be updated and maps previously generated for the previous versions will be updated if information has been updated.

**Task 1.**

The Rosebud Sioux Tribe and Banner Associates



All work and activities are aimed to be conducted within or on the Reservation. If these options are unavailable then digital communication and conference calls will be organized to collect and record information.

b. Proposed methodology:

The proposed project seeks to update Phase II as the state of Water, Natural, and Cultural Resources are ever changing. The GPTWA is taking a five-phase approach for the development of the Water Resources Management Plans as follows:

- Phase I: Baseline Condition Assessment
- Phase II: Beneficial Uses and Possible Water Quality Standards
- Phase III: Watershed Context
- Phase IV: Codes and Regulations
- Phase V: Implementation and Tools

The plan, which is intended to be a living document, has been structured to allow for seamless inclusion of new or revised data, information, approaches, and methodology on an annual basis. Each phase of the plan will essentially become subsequent chapters in the overall document.

The Phase II Beneficial Uses and Other Resources provides a baseline and analysis of the available data for natural water resources systems and water-related infrastructure for the RST, Environmental and Natural Resources, as well as beneficial uses for those resources. The Phase II report focuses on baseline conditions and beneficial uses—identifying important water resources available to and relied on by the Tribe and characterizing current conditions, current, and future uses. Baseline conditions include both natural and built systems. Each resource will be characterized for current conditions, including reliability, quality, and analysis and data gaps. In all cases, the best available data for each resource were incorporated into Phase I.

c. Project deliverables:

Primary project deliverables are an updated plan with all feedback from all departments working in water, natural, and cultural resources. A table of contents will be attached for sections seeking for updates and inclusion.

d. Description of past accomplishments:

The GPTWA has worked successfully on other important BIA grants, including the previous Water Management Planning Grant to conduct the first 2 phases of the five-phase effort to support participating Tribes in the development of their individual Tribal Water Resources Management Plans. Phase I developed a baseline condition, examining existing data, conducting a data gap analysis, and making recommendation for additional information for the foundation of the Water Resources Management Plan. Phase II identified beneficial uses and ties the importance of clean, abundant water resources to other natural resources, cultural resources, and environmental conditions.

Additionally, the GPTWA has worked successfully through its two-year grant for a BIA Climate Resiliency Partnership grant, including the development of individual climate assessments and drought vulnerability assessments. GPTWA is building on the climate resiliency work to develop individual drought adaptation plans for each participating Tribe. The drought adaptation plans are currently in the process of drafting and will have their first drafts completed at the end of September for comment and review by the Tribe.

In the course of developing these projects, one of the accomplishments in the past 4 years is the GPTWA development of technical capacity among Tribal water, natural, and cultural resource managers and technicians. This has been done through the establishment of Technical Teams from each of the four members working on their Tribal Water Resources Management Plans. These Technical Teams have been able to work collaboratively, learning from each other, as they learn how to develop their own plans. Further, under a separate BIA Climate Partnership grant, the GPTWA has

employed Tribal-member interns from the South Dakota School of Mines and Oglala Lakota College to support the work of climate assessments and drought vulnerability assessments and drought adaptation plans that will ultimately support the Tribal Water Resources Management Plans. We believe these features—technical teams and Tribal-member interns in science and engineering—are important parts of our future progress and will continue this method of working in the development of this proposed grant.

e. Current status of litigation or negotiation case: NA

**9. BUDGET JUSTIFICATION**

a. Project costs by Category/Task

Travel: \$540.00

Contract Labor: \$6,960.00

b. Phase of Project Completion: All project activities will be conducted from Oct. 1, 2020 to Sept. 30, 2021 (update as necessary)

c. Other Costs Considered Necessary for Project Success: .

**10. HISTORY OF FUNDING**

Year	Project Title	Funding	Status
a. 2019			
b. 2018			
c. 2017			

d. Past Years Accomplishments: .

e. Past 3 Years UDO's: There are no UDO's.

**11. WATER RIGHTS FUNDING REQUEST INFORMATION:** This is not a Water Rights Funding request.

**12. ENDORSEMENT OF TRIBAL LEADERSHIP:** There is a written letter of support from the Tribe's President.



**BUREAU OF INDIAN AFFAIRS**  
**FY 2020 FUNDING REQUEST**  
WATER RIGHTS LITIGATION/NEGOTIATION (R3120)  
WATER MANAGEMENT PLANNING & PRE-DEVELOPMENT (N3420)  
GREAT PLAINS REGIONAL OFFICE

- 1. DATE OF REQUEST:** August 31, 2019
- 2. TRIBE AND RESERVATION NAME:** Rosebud Sioux Tribe of South Dakota, Rosebud Indian Reservation, South Dakota
- 3. PROJECT NAME AND PURPOSE:** Rosebud Sioux Tribe Surface Water Quantification Project and Streamflow Gaging

The project goal is to provide sufficient streamflow information such that the Tribe can verify and update their Water Management Plan through the operation, maintenance, and archival of streamflow data from four sites on select streams on or near the Rosebud Indian Reservation.

- 4. FUNDING AMOUNT REQUESTED:** \$65,000.00
- 5. TYPE OF REQUEST:** Water Resource Management Planning & Pre-development

The Tribe will work with other Federal and local agencies to obtain data to document the natural variability within the streams on the Reservation. As part of this project, the Tribe will also receive training on the operation, maintenance, and archival of streamflow data from select sites on or near the Rosebud Indian Reservation. This data will be used by the tribe to evaluate changes in water use by upstream parties, to monitor any long-term impacts from groundwater withdrawal, and to facilitate decisions on water use within the Reservation as they work towards the refinement of a Water Management Plan.

**6. PROJECT MANAGER NAME & CONTACT INFORMATION**  
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**7. NAME AND CONTACT INFORMATION OF PERSON PREPARING REQUEST**  
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**8. PROJECT DESCRIPTION**

a. Scope of Work: The primary surface water sources for the Rosebud Indian Reservation are the Little White, White, and the Keya Paha Rivers. The Little White is a tributary to the White River, which is a tributary to the Missouri River. The Keya Paha River flows southeasterly into Nebraska to the Niobrara River and into the Missouri River. Both the Little White and the Keya Paha receive flows from surface water run-off and spring flow recharge primarily from the Ogallala and Arikaree Formations. The White River primarily receives flows from surface water run-off.

The Reservation has been utilizing the Little White and Keya Paha Rivers waters for municipal and residential uses as well as agricultural and recreation uses since the Reservation's inception in 1868. During the past 140 years, these rivers have been depleted by non-tribal uses including upstream irrigation and depletion of groundwater recharge from large pivot-system farms. The Tribe proposes to contract with the U.S. Geological Survey (USGS) to collect streamflow data at the proposed sites and to assist with training of Tribal staff. Tribal staff will accompany USGS staff at the various site visits when available.

b. Proposed Methodology:  
**Task 1.**



The Rosebud Sioux Tribe and the US Geological Survey propose to operate and maintain continuous discharge stations at the Little White River near Vetal, Little White River near Rosebud, Keya Paha River near Keyapaha, and White River near the town of White River for the time period October 1, 2020 through September 30, 2021. Ongoing data collected at these sites is very important to quantify water volume entering and leaving the Reservation as well as to assess impacts from groundwater withdrawals, climate change, and changes in upstream and tribal land uses. Long-term historical data is needed for the Tribe to fully understand streamflow characteristics as the Tribe works towards refinement of their Water Management Plan. The monitoring also provides insight into how the area responds to climatic changes, including very wet years like 2018-19 as well as drought years like 2004-2006.

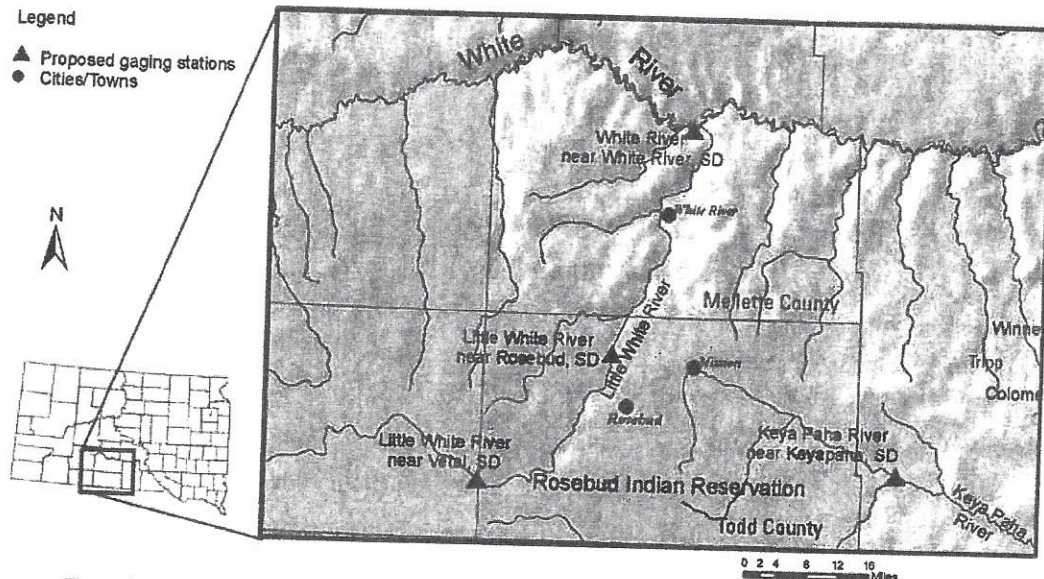


Figure 1. Location of proposed streamflow gaging station on or near the Rosebud Indian Reservation.

Sampling locations are all within or near the Reservation boundary.

If the Tribe would decide to take final steps towards Water Rights Qualification and Quantification, having historical data is imperative. Much of the flow from these streams is springflow based. One of the concerns for the Tribe is that extensive groundwater withdrawals may begin to diminish springflow and base flow in the rivers and streams. The long-term streamflow record provides a strong base for the Tribe to tease out which changes may be more strongly influencing the surface water on the Reservation.

c. Project Deliverables: Results from this activity will include daily discharge values for the time frame of Oct. 1, 2020 through September 30, 2021 as well as a staff that is better trained in the collection and evaluation of streamflow data. All data will be available in realtime via the web at <http://waterdata.usgs.gov/sd/nwis/>.

d. Description of Past Accomplishments: The work performed through 2019, as well as the work proposed here, has forwarded the research and data needed to complete the goals of the Tribes Water Department for refinements and modifications to the Water Resources Management Plan. The gaging stations have been funded in the past by various means or with assistance from other partners including the State of South Dakota, West River Water Development District, and the US Geological Survey. Those partners continue to support this effort.

e. Current Status of Litigation/Negotiation Case: N/A

**9. BUDGET JUSTIFICATION**

**a. Project Cost by Category/Task**

<b>Task 1 - Stream Gaging and Training:</b>	
Contracting US Geological Survey Gaging Station operation for 1 year: (October 1, 20120 – September 30, 2021) 4 sites	\$ 48,000.00
Technical assistance for operation of Tribal gages	\$ 6,410.00
Upgrade to Tribal gages – replacing realtime equipment which stops functioning during FY21	\$24,000
Tribal employee assistance and training - 520 hours at \$30 per hour:	\$17,000
<b>Total project cost:</b>	\$ 95,410.00
Contributions by other parties including USGS matching funds:	\$ 30,410.00
<b>Total amount requested:</b>	\$ 65,000.00

b. Phase of Project Completion: This is a single-phase project to be completed in entirety in FY2021. Total funding requested to BIA is for \$ 65,000.00 of which \$17,000 would be retained by RST for assistance in data collection and coordination of activities. \$24,000 would be a one-time upgrade to the Tribal network.

c. Other Costs Considered Necessary for Project Success: Contributions by other parties is necessary for the completion of this project. Contributions of USGS matching dollars are also contingent on availability.

**10. HISTORY OF FUNDING:**

Fiscal year	Project name	Funded amount	Deliverable	Status
a. 2019	Surface Water Quantification Project	\$44,160	Inclusion in NWIS, available realtime	Complete 9/30/21
a. 2018	Surface Water Quantification Project	\$32,000	Inclusion in NWIS, available realtime	Complete
a. 2018	Estimation of Naturalized or Pre-development flows	\$21,000	Funding received to begin task 2	Estimated completion 09/30/20
a. 2018	Groundwater Monitoring Network	\$29,000	Operation of continuous network	Complete
b. 2017	Surface Water Quantification Project	\$50,000	Inclusion in NWIS	Complete
b. 2017	Estimation of Naturalized or Pre-development flows	\$40,000	Estimated natural/pre-dam flows for tributaries to the Missouri River	Complete: Task 1
b. 2017	Groundwater Monitoring Network	\$89,000	Operation of continuous groundwater levels, report on groundwater conditions	Network monitoring complete, draft report complete

d. Past years accomplishments: Data is available to the Tribe and the public on the Wide World Web (<http://waterdata.usgs.gov/sd/nwis/>). Groundwater levels are available via NWISWeb at <http://waterdata.usgs.gov/sd/nwis/current/?type=gw>. Task 1 of Naturalized flows project complete.

e. Past 3 Years UDO's (Undelivered Orders): N/A, there have been no Undelivered Orders.

**11. WATER RIGHTS FUNDING REQUEST INFORMATION:** This is not a Water Rights Funding request.

**12. ENDORSEMENT OF TRIBAL LEADERSHIP:** The project is endorsed by the Rosebud Sioux Tribal Council, Rosebud, SD and a letter of support from the Tribal Chairman is attached.