

**U.S. Army Corps of Engineers
Fiscal Year 2021
Handshake Program Application**

Please review instructions before completing application!

Corps Lake/River Project Name: **Fort Randall**

District / Division:**Omaha/NWD**

Handshake Proposal Title: **Targeted Goat Grazing of Eastern Red Cedar**

Corps POC Name:**Kelsey Kniffen**

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A. Checklist:

1. Will the Handshake funds be spent on Corps facilities and resources that are being fully maintained by the Corps? (not in outgranted parks) **Yes** **No**
 2. Will the Challenge Partnership agreement be with a non-federal public or private entity(ies)? **Yes** **No**
 3. Is the proposed activity within current authorities and contained in the annual or 5-year work plan in the approved lake project OMP? **Yes** **No**
 4. Have all of the NEPA requirements been considered for this project? **Yes** **No**
 5. I am aware the Challenge Partnership Agreement must be reviewed and Approved by District Office of Counsel before sending to HQUSACE. **Yes** **No**
 6. If the full funding amount requested is not available, could a portion of this Handshake Project be completed with partial funding? **Yes** **No**
 7. I am aware that all government funds must be spent in accordance with FAR, DFAR and AFAR contracting laws and regulations, and that Handshake funds cannot be provided to the partner(s). **Yes** **No**
 8. Did you participate in a Handshake Webinar in 2019 or review a 2019 Handshake Webinar on the Gateway? **Yes** **No**
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B. Handshake Funding Request (maximum \$25,000): \$12,462.32

C. Incentive Points Category: Check the appropriate box if your application qualifies to receive bonus points on the evaluation score.

- This project will be completed with a national MOU partner with which the Lake or Project hasn't previously partnered. (100 points).
- This project reduces O&M cost to the Corps over the lifecycle of the proposed project or improves existing infrastructure. (100 points).

D. Describe your partnership and the proposed Handshake Partnership Project:

Project applications will be evaluated on the categories below. Please complete each section as appropriate.

Summary Statement:

Controlling the encroachment of the Eastern Red Cedar (*Juniperus virginiana*) on project grasslands has been a costly and time consuming fight. The "green glacier" has effected a multitude of organizations and individuals working to manage grasslands along the Missouri River. Current practices used to manage Eastern Red Cedar include prescribed burns, mechanical clearing, and chemical applications. The goal of our project is to add another tool to the cedar management toolbox through the use of targeted grazing. Goats are natural woody plant browsers and have been effective in managing other invasive plants. We will establish one square acre grazing plots to determine what cedar growth stage goats will be most effective at controlling.

Handshake Funding Cost Break Down:

Electric Fencing Materials:

- Electric Netting - \$4,050.00
- Fence Energizers - \$860.97
- Ground Rods - \$40.50
- Reinforcement Posts - \$72.00
- Fence Testers - \$45.00
- Electric Fence Warning Signs - \$14.40

Permanent Fencing Materials:

- Welded Wire Cattle Panels (16ft)- \$575.76
- Steel T-Posts (5 1/2ft)- \$116.70
- Utility Wire- \$20.00

Hand Held GPS:

- Garmin eTrex Touch 35- \$299.99

Livestock Supplies:

- Water Tanks -\$618.00
- Water Transportation Tank w/ Pump- \$600.00

Pull Behind ATV Mower:

- Swisher Rough Cut Pull-Behind Trailcutter w/ Electric Start, 44in. - \$2,599.00

Outreach Materials:

- Brochures/Newsletters- \$750.00
- Advertising in Local Newspapers- \$300.00
- Workshop Display Materials and Handouts- \$1500.00

Longevity / O&M description:

The Targeted Goat Grazing of Eastern Red Cedar project will provide a new opportunity for managing cedar tree encroachments. The projected length of this study is 3-5 years to compile enough data to support our theory that goats will be effective at managing cedar trees. Goat grazing has the potential to target trees before they reach a size that becomes difficult to remove. Grazing can also be utilized in years where conditions are not ideal for performing perscribed burns. In addition to inhibiting grassland growth, cedar groves also cause accessibility issues due to their dense stand growth. These thick groves make it difficult to access areas for land management purposes.

Partnership Value:

* South Dakota State University is a new partner for the Fort Randall Project Office. The university will be integral to data analysis and collection. Dr. Alexander Smart has extensive knowledge and experience with South Dakota grasslands and Eastern Red Cedar research. A graduate student will assist over the life of the research study.

* The Mid-Missouri River Prescribed Burn Association (MMRPBA) has worked with the Fort Randall Project office in the past when completing prescribed burns along the Missouri River. The association has experience with managing Eastern Red Cedars through prescribed burns on private lands.

*The Wildlife Division of South Dakota Game, Fish, and Parks (SDGF&P) has worked with the Fort Randall Project on multiple projects in the past. SDGF&P will assist with field work and outreach programs.

* Gregory and Charles Mix County 4H members will be involved with field work while grazing activities are ongoing. Members will be involved with data collection, observations, and field day set up. This study will allow for interested members to learn about targeted grazing and cedar management. This project will stem involvement from members with both agricultural and natural resources interests. Those interested in becoming goat producers will gain knowledge of a potential way for marketing their goats.

*The National Wild Turkey Federation is a new partner for the Fort Randall Project Office. Members of the Fort Randall Gobblers Chapter will provide volunteer hours to assist with field days, workshops, and outreach efforts. River hills along the Missouri provide extensive habitat for turkey's where cedar encroachment hasn't yet invaded. Many acres of turkey habitat have been compromised by cedar tree groves limiting the amount areas available for hunting.

*The U.S Army Corps of Engineers will provide land areas for the grazing activity, labor hours, and equipment use. Labor hours will be used for planning, field days, outreach, and workshops. Equipment use will consist of utilizing ATVs for field day activities including mowing and transportation to remote areas.

Recreational Benefit:

A reduction in cedar tree groves will allow for the regrowth of native grasses and forbs. Restoration of the native grassland plants will lead to a long term population growth of native animal species. This in turn will provide more hunting opportunities for a variety of different sportsmen.

Environmental Stewardship Value:

The control of Eastern Red Cedar trees is essential to the survival of native grasslands which in turn sustain our wildlife populations. Utilizing goats as a control method is a minimally invasive method in comparison to mechanical and chemical removal. Goats will naturally select trees and shrubs as their browse leaving the native grasses mostly untouched. Cedar tree control also opens up grazing lands utilized by cattle ranchers along the Missouri River.

Communication & Education Value:

This pilot study will open the door for a number of private landowners, government agencies, and public entities who are currently making efforts to control Eastern Red Cedar trees. This study will allow 4H students from local chapters to work together with a diverse team of leaders and learn about targeted grazing, the impact of Eastern Red Cedar on grasslands, and methods of control for cedar trees. The outreach portion of our study will include field visits, workshops, and social media posts. This will communicate to various groups and organizations what our goal is and how it may be of benefit to them in their land management plans.

Innovativeness:

Goats have become a popular choice when it comes to brush and invasive plant management. They are able to access difficult areas, provide a "green" alternative to chemical applications, clear land in a quick and efficient manor, leave behind natural fertilizer, and reduce costs to landowners and managers. While goats have been used extensively to control other species of invasive plants, there have been very few occasions where they have been used against Eastern Red Cedar.

Conclusion:

This proposed Handshake Partnership will allow for a diverse group of partners to come together and develop another tool for the Eastern Red Cedar management toolbox. The long term benefits from the success of this project will be prevalent for years to come; providing an additional option in areas difficult to access and for years when burning isn't ideal. This project will reduce the long term O&M efforts by targeting trees before they get to the point where they require mechanical removal.

Double click on spreadsheet to access data entry fields and to enter Partner names.

You MUST enter partner names into the spreadsheet:

	Local Corps Office	Handshake Funds	MMRPBA	South Dakota State University	SDGF&P - Wildlife Division	Charles Mix County 4H
Salaries	\$5,569	N/A	\$0	\$0	\$1,800	\$0
Travel	\$0	N/A	\$420	\$5,000	\$200	\$115
Materials and Supplies	\$0	\$12,462	\$0	\$5,000	\$0	\$0
Equipment Use	\$3,250	\$0	\$0	\$0	\$800	\$0
Funds Contributed	N/A	N/A	\$0	\$0	\$0	\$0
Personal Property	N/A	N/A	\$0	\$0	\$0	\$0
Volunteer	N/A	N/A	\$6,800	\$0	\$0	\$2,611
In-Kind Services	N/A	N/A	\$0	\$40,000	\$500	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$8,819	\$12,462	\$7,220	\$50,000	\$3,300	\$2,726
Share of Total Cost	8.9%	12.5%	7.2%	50.2%	3.3%	2.7%
	21.4%					
	Gregory County 4H	National Wild Turkey Federation	Goat Producer	Partner 8	Partner 9	Partner 10
Salaries	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$830	\$420	\$1,400	\$0	\$0	\$0
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$0
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$3,481	\$5,440	\$0	\$0	\$0	\$0
In-Kind Services	\$0	\$0	\$3,500	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$4,311	\$5,860	\$4,900	\$0	\$0	\$0
Share of Total Cost	4.3%	5.9%	4.9%	0.0%	0.0%	0
	Partner 11	Partner 12	Partner 13	Partner 14	Partner 15	Total
Salaries	\$0	\$0	\$0	\$0	\$0	\$7,369
Travel	\$0	\$0	\$0	\$0	\$0	\$8,385
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$17,462
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$4,050
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$0	\$0	\$0	\$0	\$0	\$18,332
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$44,000
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$99,599
Share of Total Cost	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Explanations:

Salaries and Volunteer estimates are based on time spent completing the following tasks: communication and coordination, field days, workshop days, site preparation and follow-up visits, data collection and analysis, grazing activities and observations.

Travel is estimated based on mileage from various partners starting points and the number of trips they will need to make to and from the site.

Materials and supplies estimates are based on fencing needed for study areas, livestock supplies, site preparation materials, data collection and analysis supplies, and materials used in outreach programs.

Equipment use includes ATV and UTV use for mowing and transportation.

Volunteer hours are estimated using the supplied rate of \$27.20/hr.

In-Kind Services include data collection and analysis by South Dakota State University and goats needed for targeted grazing activities.