

# Handshake Partnership Program Final Project Close-Out Report

- 1. Fiscal Year Selected as Winning Project:** FY21
- 2. Name of Corps Project/Lake:** Fort Randall Project/ Lake Francis Case
- 3. District / Division of Corps Project/Lake:**  
Omaha District/ Northwest Division
- 4. Handshake Project Name:** Targeted Goat Grazing of Eastern Red Cedar
- 5. Amount of Handshake Funds remaining:** \$366.46 (Headquarters requested these funds back and they were transferred in June 2022)
- 6. What has been accomplished? Please provide photographs; before, during, and after!:**  
A two-year study was conducted to determine the effectiveness of using goats to control and manage eastern red cedar. The study brought together 6 partners from various backgrounds all with one common goal – find an additional tool to help manage Eastern Red Cedar Trees. All partners worked together to ensure that the study and the field days were a success. SDSU was responsible for data collection and developing the parameters of the study. The Mid-Missouri River Prescribed Burn Association and South Dakota Game Fish and Parks provided support during the grazing applications and on field days. 4H members assisted our producer in rotating the goat herds and caring for the goats throughout the entire study.

One field day was hosted in 2021 and had an attendance of 23 people. A second field day was hosted in 2022 and had an attendance of 31 people. The goal of the field days was to provide individuals with a “boots on the ground” experience and to see the goats in action. Attendees were able to view plots in various stages of grazing activities and ask questions about the grazing applications, goat husbandry, and parameters of the study. Through this study we found another alternative to help combat the “green glacier” that has invaded the Missouri River Hills. Similar to prescribed burning, we found that goat targeted grazing will require a specific prescription for each piece of land needing treatment.

	<b>Total</b>
<b>Handshake Program Funding Amount</b>	\$12,462.00
<b>Local Corps Office Funds</b> (total expended on labor, materials, contracts, etc.)?	\$11,551.89
<b>Partner’s Contributions</b> (total value of funds, goods, services, volunteer hours, etc.)	
<b>Partners Name</b>	<b>Total Value of Contributions</b>
1 South Dakota State University	\$57,000.00
2 The Mid-Missouri River Prescribed Burn Association	\$7,622.00
3 South Dakota Game Fish and Parks – Wildlife Division	\$3,300.00
4 Charles Mix County 4H	\$4,226.00
5 Gregory County 4H	\$4,311.00
6	\$

## **6. Handshake Program Recipient Feedback**

The Handshake Program is essential in providing start-up costs that are necessary to get projects rolling that may otherwise be overlooked for funding. Both programs carry a valuable asset; the ability to bring a wide array of partners together around one common goal. For Fort Randall, this “start-up” partnership has opened many doors to develop further partnerships with these groups, which will help us to carry out other projects and business lines. Through completion of this project, the Handshake Program also attracts other organizations who may be interested in partnering with us on future projects that require additional funding. The only difficult part was getting the Challenge Agreement routed through the partners in a timely fashion. It would be nice to streamline the process to get the money into the hands of the project quicker than the 6 months turn around that it took.

## **7. Handshake Summary:**

See Next Page. Article published in Volume 4: Issue 4 – December 2021 - USACE Stewardship News

# USACE Omaha District Enters Handshake Partnership Agreement to Use Goat Grazing to Control Eastern Red Cedar Trees at Fort Randall

4

*Article written by Nyime Gilchrist (USACE, Omaha District Public Affairs Office)*

*NRM POC: Kelsey Kniffen, Fort Randall Project Office; Zach Montreuil, Omaha District, Operations Division*

As stewards of almost 400,000 acres of public lands, Omaha District welcomes opportunities to work with local organizations and communities who share common goals and interests in conserving public resources. The Omaha District Fort Randall Project in South Dakota recently entered in a handshake partnership agreement with South Dakota State University, the Mid-Missouri River Prescribed Burn Association, South Dakota Game Fish and Parks Wildlife Division, Charles Mix County 4-H, and Gregory County 4-H with the purpose of completing targeted goat-grazing studies on eastern red cedar trees.



Cedar trees are native to the region and provide ecological

value. There are many benefits of allowing cedars to grow on the lake shore and surrounding USACE properties, including wildlife shelters and nesting cover for migrating birds. In addition, cedars tend to grow well where other species do not, providing a root system to hold soil. Eastern red cedar trees have been deemed an invasive species for a several reasons. The trees have dense canopies that prevent precipitation and sunlight from reaching the grass and other vegetation below, causing them to die off.

Due to a variety of oils within the tree, they can be quick to ignite in dry conditions. A burning red-cedar tree can spread thousands of embers downwind, increasing the rate of a wildfire's spread.

The program will allow the agencies to share resources to conduct a study and develop a proactive approach to manage eastern red cedar trees by using targeted goat-grazing at the Fort Randall Project. Targeted grazing focuses a group of animals, in this case, goats, on a specific area to manage a designated plant species. Partners are contributing livestock, fencing, supplies, the coordination of field days, workshops, site preparation and follow-up visits, outreach, data collection and analysis, grazing activities, and observations. For this study, grazing activities will occur each of the four season in three different grazing plots at the Fort Randall Project.

"This partnership at Fort Randall, will help us continue to accomplish mission objectives, protect wildlife, improve habitats, and protect the environment while enhancing our ability to outreach to the public," said Zach Montreuil, natural resources specialist, USACE, Omaha District.

The first phase of the grazing trials started in June of 2021. Grazing activities will be conducted early, mid, and late summer. "During the first grazing application in June, a group of 100 goats grazed a little more than one-eighth of an acre in a 24 hour period, targeting the eastern red cedars present. This was repeated for four consecutive days, helping us to determine the effectiveness of the goats," said Kelsey M. Kniffen, park ranger, USACE, Omaha District Fort Randall Project Office. Over the length of the study, a total of six grazing applications will be completed.

Through environmental planning, USACE works with other federal and state agencies, non-governmental organizations, and academic institutions to find innovative solutions to challenges that affect everyone – sustainability, climate change, endangered species, ecosystem restoration and more.

The Omaha District works to restore degraded ecosystem structure, function, and dynamic processes to a more natural condition through large-scale ecosystem restoration projects throughout the Missouri River watershed. This is achieved via system-wide watershed approaches to problem solving and management for smaller ecosystem restoration projects. Additionally, the USACE regulatory program works to ensure no net loss of wetlands while issuing construction permits.

*Photo Right: South Dakota State University volunteer, students and staff, measure and tag cedar trees for targeted goat-grazing studies on eastern red cedar trees at the U.S. Army Corps of Engineers, Omaha District's Fort Randall Project near Pickstown, South Dakota, June 10.*



*Photo Above: Goats grazing cedar trees for targeted grazing studies on eastern red cedar trees at the U.S. Army Corps of Engineers Omaha District's Fort Randall Project near Pickstown, South Dakota, June 18*





*June 2021: Cedar trees one day post grazing treatment. Note bark has been completely stripped from young tree.*



*August 2021: Cedar trees 60 days post grazing treatment. Trees have begun to turn brown and native grass has regrown.*



*May 2022: Cedar trees one year post grazing treatment.*





*June 2021: South Dakota State University graduate students and staff document height, circumference, and number of branches on Eastern Red Cedar Trees prior to grazing treatment application.*



*June 2021: Partners meet to discuss findings and take measurements after first round of grazing treatment.*





*June 2022: Plot 4 - Section 4 pre-grazing treatment.*



*June 2022: Plot 4 - Section 4 during grazing application.*





*June 2022: Plot 4 - Section 4 one day post grazing treatment.*



*September 2022: Plot 4 - Section 4 90 days post grazing treatment.*





*June 2022: Goats browsing on bark of Eastern Red Cedar Tree.*



*June 2022: Goats browsing on Eastern Red Cedar Tree.*



*July 2022: Producers, Land Managers, Agencies, and Ranchers participate in field day activities.*