United States Department of Agriculture

USDA Natural Resources Conservation Service
South Dakota State Technical Committee Meeting

December 17, 2024 | 10 a.m. Central Daylight Time

Join the STC meeting via Microsoft Teams on your computer, mobile app or room device:
Join the meeting now Meeting ID: 259 682 702 97 Passcode: ZcFSeD
Dial-in by phone +1 202-650-0123,,587595277# Phone conference ID: 587 595 277#

AGENDA

1. ***Welcome***
   Moderator, Colette Kessler, Assistant State Conservationist Partnerships

2. **Opening Remarks**
   Tony Sunseri, State Conservationist, USDA Natural Resources Conservation Service South Dakota 2024 Cooperative Conservation Award

3. **Congressional Delegates Updates**
   Reid Rasmussen – Congressmen Dusty Johnson
   Ashlynne Beninga – Senator John Thune

4. **Guest Presentations:**
   - Wetland Mitigation Banking Update, Executive Director Krystil Smit, South Dakota Farm Bureau
   - Tribal Update: Charlene Miller, Fish and Wildlife Program Manager, Sisseton Wahpeton Oyate

5. **Updates of the USDA Natural Resources Conservation Service Serving South Dakota**
   Tony Sunseri, State Conservationist
   - Highlights of our Year in Review

   - USDA Seeks Public Input on Climate Benefits of Conservation Practice Standards - USDA is publishing a Request for Information in the Federal Register requesting public input on its Climate Change Mitigation and Adaptation conservation practice standards. Public comments should be submitted through the *Federal Register* notice by **December 23, 2024**.

6. **Ecological Sciences Update, Conservation Planning and Conservation Practices Update**
   Jessica Michalski, State Resource Conservationist, Natural Resources Conservation Service
   - Conservation practices updates of the Electronic Field Office Technical Guide (eFOTG)
   - New NRCS SD Publications available for Ag Producers

7. **Workload Update for Wetland Determinations and Highly Erodible Land**
   Deke Hobbick, Assistant State Conservationist for Compliance, NRCS

8. **NRCS SD Engineering Division Update**
   James Reedy, State Conservation Engineer, NRCS
   - Emergency Watershed Protection (EWP) Program

9. **Farm Service Agency Conservation Program of the Farm Bill Update**
   Owen Fagerhaug, Agricultural Program Specialist, Farm Service Agency
   - Conservation Reserve Program (CRP)

10. **NRCS Conservation Programs of the Farm Bill Updates**
    Val Dupraz, Assistant State Conservationist for Programs, NRCS
    - Environmental Quality Incentives Program (EQIP)
    - Conservation Stewardship Program (CSP)
    - Agricultural Conservation Easements Program (ACEP)
    - Regional Conservation Partnership Program (RCPP)

11. **NRCS Soils Update**
    Nathan Jones, State Soil Scientist, NRCS
    - Update for the Soil Carbon Network implementation across South Dakota

12. **Partnerships and USDA NRCS Agreements Update**
    Colette Kessler, Assistant State Conservationist Partnerships, NRCS
    - Update of Conservation Collaboration Cooperative Agreements (CCCA) for FY2025

13. **General Discussion, Questions, Round Robin of Conservation Partners Updates:**
    Due to meeting agenda time constraints, the topics and length of time allocated may be limited.
    - Krista Erdman, Science Integration Specialist, Northern Great Plains Joint Venture on their Northern Great Plains Joint Venture's survey project
    - Matt Gottlob, Coordinator, SD Pheasants Forever

Additional information

USDA NRCS South Dakota Staffing and Personnel Updates
-> NRCS South Dakota Web Page: The Personnel Directory can be found under Contact Us
https://www.nrcs.usda.gov/contact/state-office-contacts/south-dakota-state-office

Subscribe to updates for the USDA NRCS SD State Technical Committee, please visit www.farmers.gov, then scroll down to "Subscribe to Updates"– follow the menus and look for "State Technical Committee" in the topic list. Also, please take the opportunity to consider other topics and geographic locations down to the county level.

Find **archived individual STC Meeting information** at the USDA NRCS SD web page for https://www.nrcs.usda.gov/events/south-dakota-state-technical-committee-meeting *(Shortened URL: https://bit.ly/StateTechnicalCommittee).* Please use this link to find the State Technical Committee meetings recordings on NRCS SD YouTube Channel Playlist

The meeting notifications of the regularly scheduled State Technical Committee (STC) are also distributed via a shared mailbox: sm.fpac.nrcs.sd.partnerships@usda.gov. Notifications via U.S. Postal Service may be requested by contacting the NRCS State Office Randi Papka randi.papka@usda.gov or calling (605) 352-1200.

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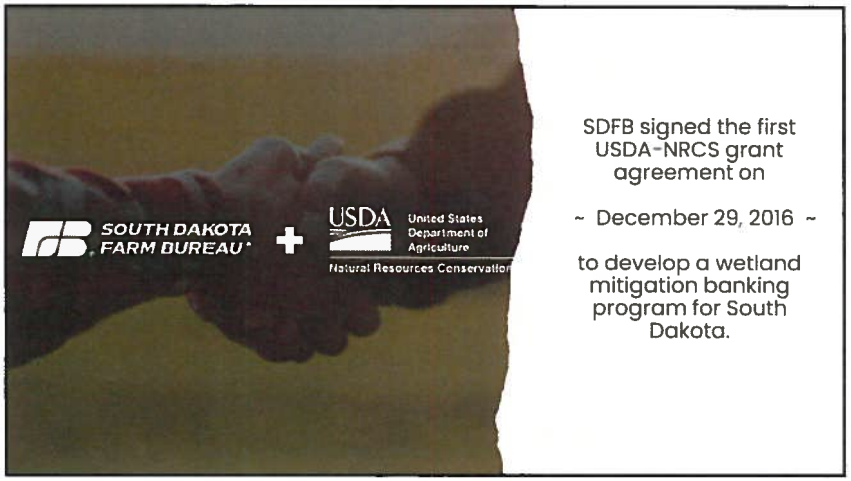
SD Farm Bureau
Ag Wetland Mitigation
Bank Update
SOUTH DAKOTA
FARM BUREAU

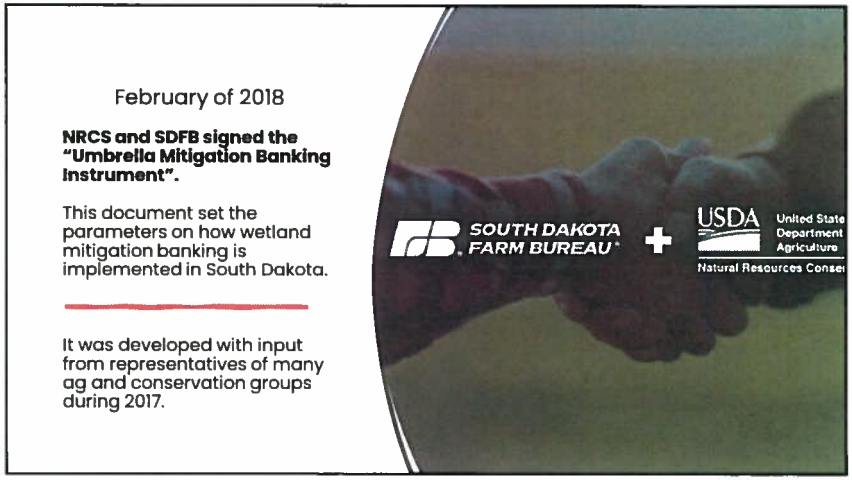
1


SOUTH DAKOTA
AG WETLAND EXCHANGE
South Dakota Farm Bureau is the sponsor of the South Dakota Ag Wetland Mitigation Bank program through federal grants from USDA NRCS.
GOALS:
1. Work with landowners to establish ag wetland banks on their properties by restoring, enhancing, or creating wetland functions and values.
2. Provide solutions for landowners who need wetland credits for compliance or productivity reasons.

2


SOUTH DAKOTA
FARM BUREAU
USDA
United States
Department of
Agriculture
Natural Resources Conservation
SDFB signed the first USDA-NRCS grant agreement on
~ December 29, 2016 ~
to develop a wetland mitigation banking program for South Dakota.

3


February of 2018
NRCS and SDFB signed the "Umbrella Mitigation Banking Instrument".
This document set the parameters on how wetland mitigation banking is implemented in South Dakota.
It was developed with input from representatives of many ag and conservation groups during 2017.
SOUTH DAKOTA
FARM BUREAU
USDA

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- Grant number 2 was awarded in **2020** and we are wrapping up the final report for work completed under this grant.

  We are presently operating under grant number 3, which we began in **2024**.

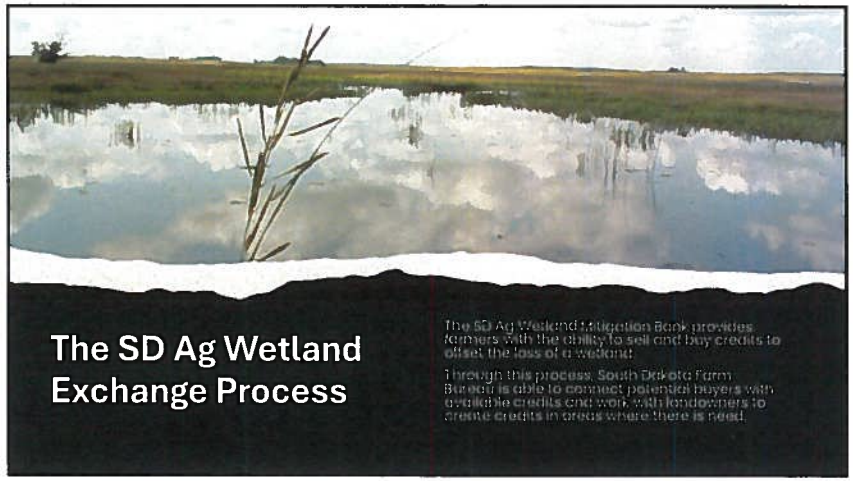
5

Together with NRCS, and our consultant and engineering partners, we provide assistance to those seeking to restore or create wetlands and purchase available credits.

TOPSOIL
Brian Top, Consultant

Stantec

6



The SD Ag Wetland Exchange Process

The SD Ag Wetland Mitigation Bank provides farmers with the ability to sell and buy credits to offset the loss of a wetland.

Through this process, South Dakota Farm Bureau is able to connect potential buyers with available credits and work with landowners to create credits in areas where there is need.

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ZERO NET LOSS OF WETLANDS

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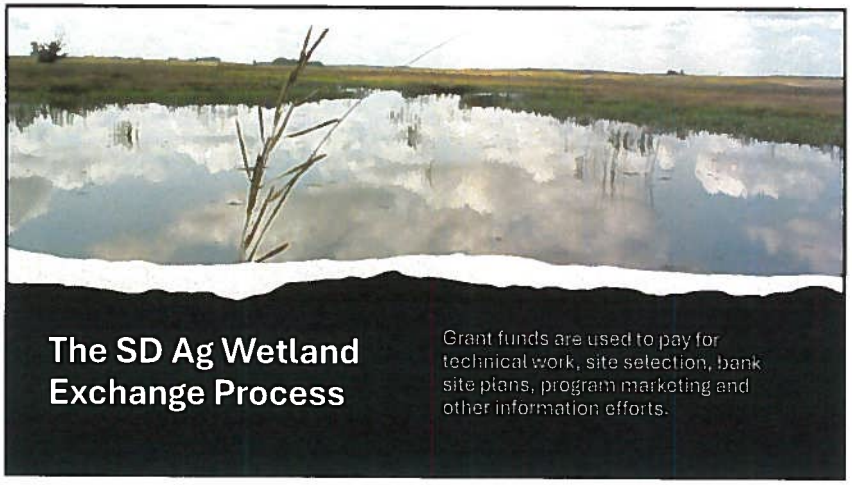
The SD Ag Wetland Exchange Process
Grant funds are used to pay for technical work, site selection, bank site plans, program marketing and other information efforts.

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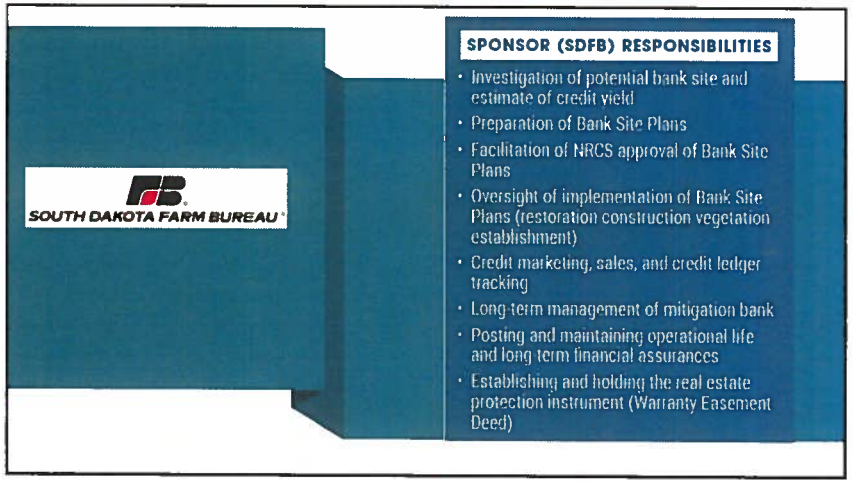
The SD Ag Wetland Exchange Process
Bank Site Plans are developed and sent out for public comment to the STC.
These plans give detailed information regarding the restoration/creation of wetlands to produce "wetland credits".
These wetland credits are then sold to ag producers who need to convert wetlands but also need to meet the wetland conservation compliance requirements of the Farm Bill.

10


SOUTH DAKOTA FARM BUREAU
SPONSOR (SDFB) RESPONSIBILITIES
Investigation of potential bank site and estimate of credit yield
Preparation of Bank Site Plans
Facilitation of NRCS approval of Bank Site Plans
Oversight of implementation of Bank Site Plans (restoration construction vegetation establishment)
Credit marketing, sales, and credit ledger tracking
Long-term management of mitigation bank
Posting and maintaining operational life and long term financial assurances
Establishing and holding the real estate protection instrument (Warranty Easement Deed)

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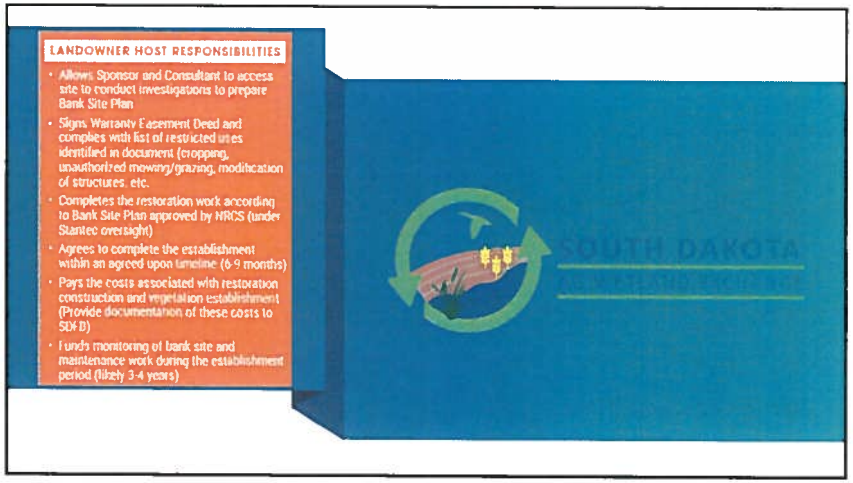
LANDOWNER HOST RESPONSIBILITIES
Allows Sponsor and Consultant to access site to conduct investigations to prepare Bank Site Plan
Signs Warranty Easement Deed and complies with list of restricted uses identified in document (cropping, unauthorized mowing/grazing, modification of structures, etc.
Completes the restoration work according to Bank Site Plan approved by NRCS (under Stantec oversight)
Agrees to complete the establishment within an agreed upon timeline (6-9 months)
Pays the costs associated with restoration construction and vegetation establishment (Provide documentation of these costs to SDFB)
Funds monitoring of bank site and maintenance work during the establishment period (likely 3-4 years)

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The SD Ag Wetland Exchange Process

PROPOSED CREDIT REVENUE ALLOCATION		
	SDFB	Landowner Host
	Long-Term Management Fund	Financial Assurance for Operational Life Fund
Distribution of Revenue	20%	80%

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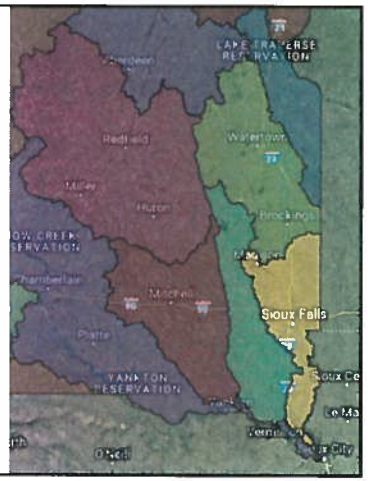
Geographic Service Area (GSA)

The goal is to trade credits within the same Geographic Service Area.

These service areas are tied to watersheds or portions of a watershed.



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Current Bank Sites

We currently have 7 approved WMB sites in 5 GSAs:

- Minnesota
- Lower Big Sioux
- Vermillion
- Middle James
- Upper James

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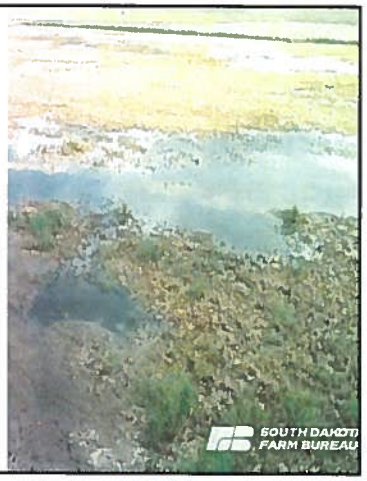
Current Bank Sites

Of the 7 approved bank sites, 2 have reached maturity and all 45.1 acres of credits have been sold.

Maturity means they have met the 3 wetland criteria:

- hydric soil
- hydric vegetation
- required hydrology.



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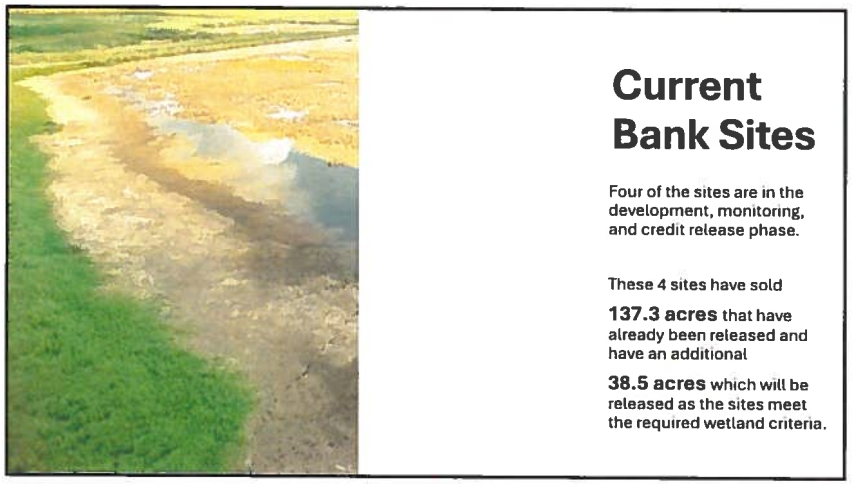
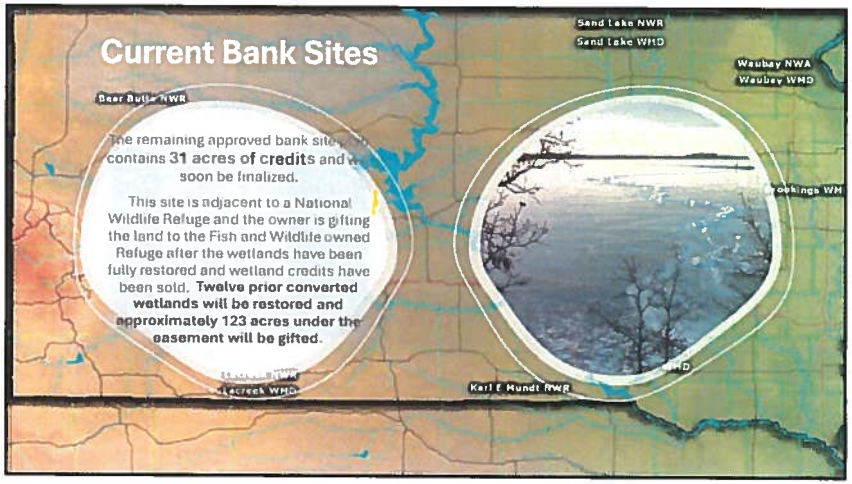

Current Bank Sites
Four of the sites are in the development, monitoring, and credit release phase.
These 4 sites have sold
137.3 acres that have already been released and have an additional
38.5 acres which will be released as the sites meet the required wetland criteria.

17


Current Bank Sites
Sand Lake NWR
Sand Lake WMD
Waubay NWA
Waubay WMD
Bear Butte NWR
The remaining approved bank site contains 31 acres of credits and will soon be finalized.
This site is adjacent to a National Wildlife Refuge and the owner is gifting the land to the Fish and Wildlife owned Refuge after the wetlands have been fully restored and wetland credits have been sold. Twelve prior converted wetlands will be restored and approximately 123 acres under the easement will be gifted.
Karl E Mundt NWR

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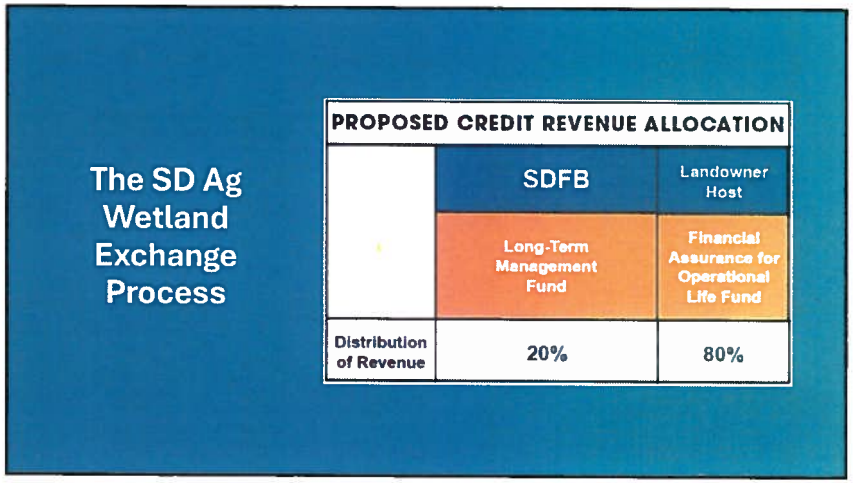
CREDIT SALES
1 Acre = 1 Credit
Sale Range from $16K - $30K+

19


The SD Ag Wetland Exchange Process
PROPOSED CREDIT REVENUE ALLOCATION
SDFB
Landowner Host
Long-Term Management Fund
Financial Assurance for Operational Life Fund
Distribution of Revenue
20%
80%

20

Total Credits Sold: 158.28

Total Revenue from sales

$3,050,000

Distributed as follows:

80% Landowner

$2,395,000.00

12% SD Community Foundation

Long Term Management = **$236,000.00**

Catastrophic Event - **$158,000.00**

8% Program Administration/SDFB

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Long Term Management

12% SD Community Foundation:

Long Term Management = $236,000.00

Catastrophic Event - $158,000.00

Current Balance (10/31/24) of SD Community Foundation funds with interest added and administrative fees deducted:

Long Term Management - $275,345.000

Catastrophic Event - $183,211,000

Minnehaha Conservation District is responsible for the long-term monitoring and maintenance of the bank sites.

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Future Bank Sites

We currently have 6 potential new host sites currently being evaluated for producing credits.

Literally hundreds of sites have been analyzed that were not able to move forward as potential host sites.

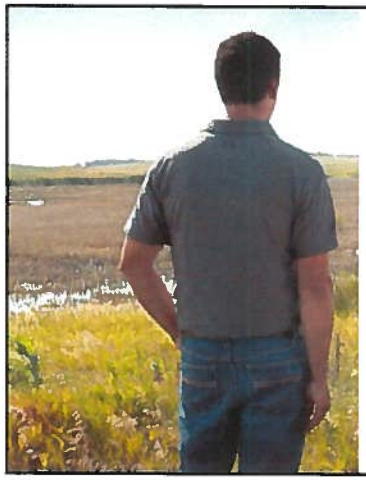
23

Challenges

We're always looking for additional host sites.

Demand outpaces the inventory.

24



Challenges

There are still misconceptions, misinformation and unawareness about the program.

- Long term easements
- Overall support

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Strong Demand for Credits and Host Sites In These Watersheds:

- **Upper Big Sioux**
- **Upper James**
- **Vermillion**

26

Opportunities

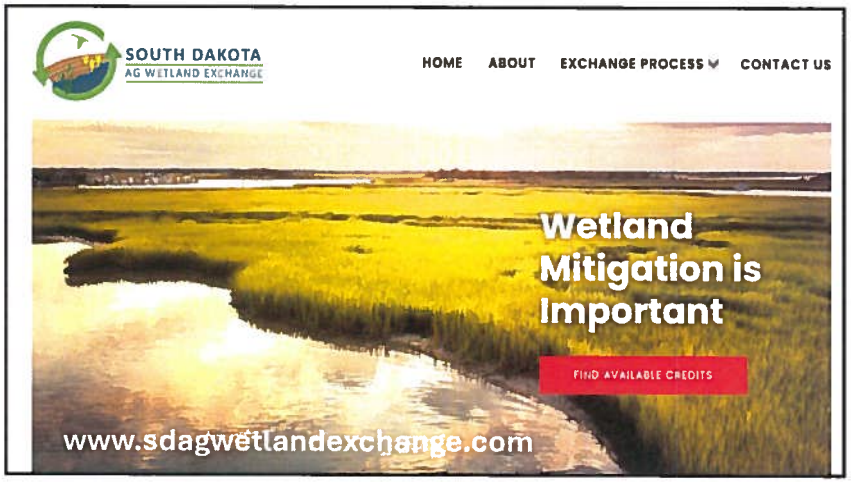
Economic Incentive for landowners

Demand outpaces the inventory.

27

What makes a good WMB Host Site?

28


SOUTH DAKOTA
AG WETLAND EXCHANGE
HOME
ABOUT
EXCHANGE PROCESS
CONTACT US
Wetland Mitigation is Important
FIND AVAILABLE CREDITS
www.sdagwetlandexchange.com

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USDA Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

Fiscal Year in Review

2024

"There can be no doubt that a society rooted in the soil is more stable than one rooted in pavements." – Aldo Leopold

1

Overview

- Trainings
- Meetings
- Awards
- NRCS Spotlighted
- Farm Bill Programs
- Projects
- Partnerships
- Business Tools
- Outreach

2

Meetings

Ecological Sciences and Business Tools Team

Brookings Area Field Day

Tribal Conservation Advisory Committee Meetings

Pathways Students

3

Trainings

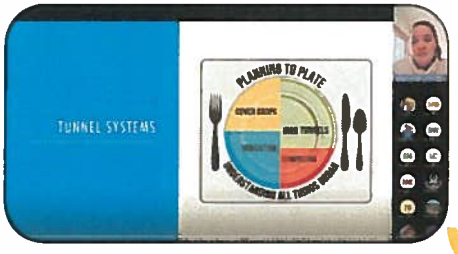
Basic Survey & Design Class

John Schmidt working with students on closing a level survey

Louis Eastwood (far right) gives directions to students

Nathan Dick (far left) helps students calculate height of instrument (HI)

Urban Agriculture Training



Planning to Plate

4

Awards

Projects Designed by Engineers and Civil Engineering Techs (CET)

1st Place

Daniel Ostrem

2nd Place

Louis Eastwood

Projects Designed by Non- Engineers or CET's

1st Place

Tyler Swan

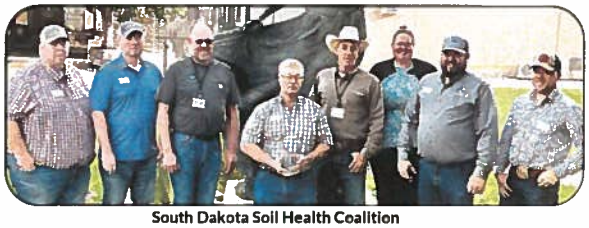
2nd Place

Nyle Herbener

5

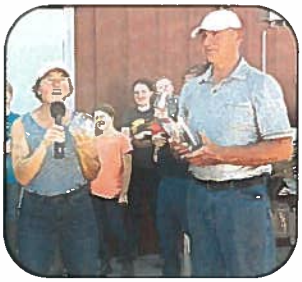
Volunteers and Victories

National Earth Team Volunteer Award Winners



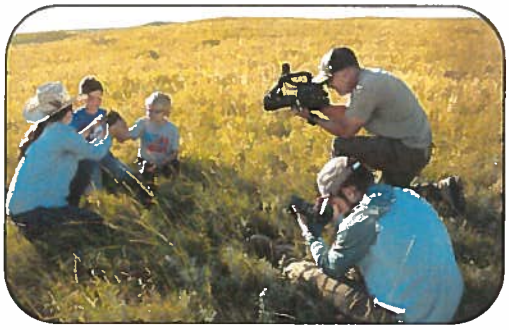
South Dakota Soil Health Coalition

Tracy Rosenberg



Walkes Family

Emmy-Winning PSA



(Photo provided by SD Grassland Coalition)

6

NRCS Spotlighted

Dakota Farmer Magazine

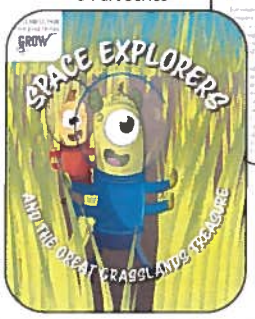
Rethink Grazing Practices

Dakota Farm Talk

Conservation Digest

Beginning Farmer Conservation Journey

3-Part Series



7

Farm Bill Obligations

Agricultural Conservation Easements

$69,525.372
8.268 Acres

Conservation Stewardship Program

$41,440.158
818,000 Acres

EQIP

$44, 386,454
397. 337 Acres

Regional Conservation Partnership Program (RCPP)

$82,751.778
6 Projects Approved

8

Farm Bill Quick Facts

SD NRCS is #1 in the Nation for RCPP Projects Approved (6)

Contracts with individual women or women-owned entities increased from 7% to 12%

18.8 M to Beginning Farmers and Ranchers
67.2 M to cattle Producers
(Over 1 Million Acres)

400 new-to-NRCS participants received financial assistance or technical services

818,000 CSP acres were enrolled which slightly larger than the whole state of Rhode Island (source-RI.gov)

From 2022 to 2024, SD NRCS programs obligations have doubled with a 70% increase in contracts.

9

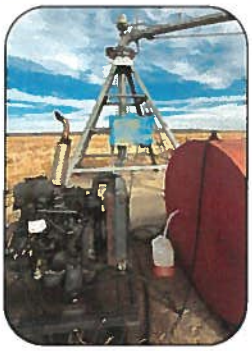
Studies and Improvements

South Dakota Soil Health Study

The Core above was pulled from 20 years of untouched CRP.

SATUROs measuring how water moves through the soil

Watering system on Pine Ridge Reservation



Combustion System Improvement

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Projects

Stream Crossing: Articulated Cable Concrete Blocks and Mats

Streambank Grade Stabilization: Moreau River Stream Barbs

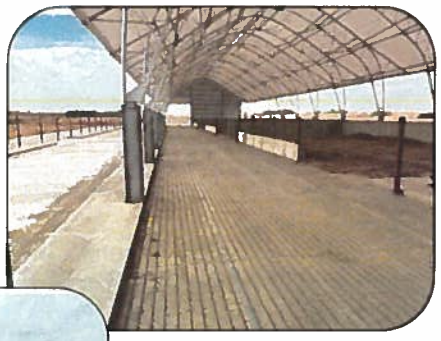
Installation of the first steam barb

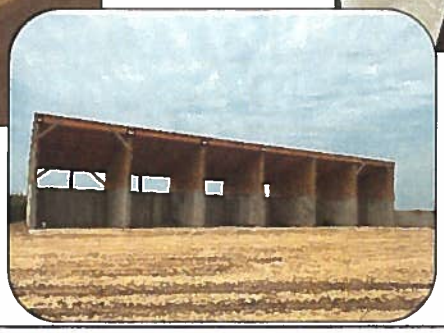
Pre-Construction

11

Nutrient Management Team

(Location and inside- look at the bedded pack barn with the hoop roof installed.)

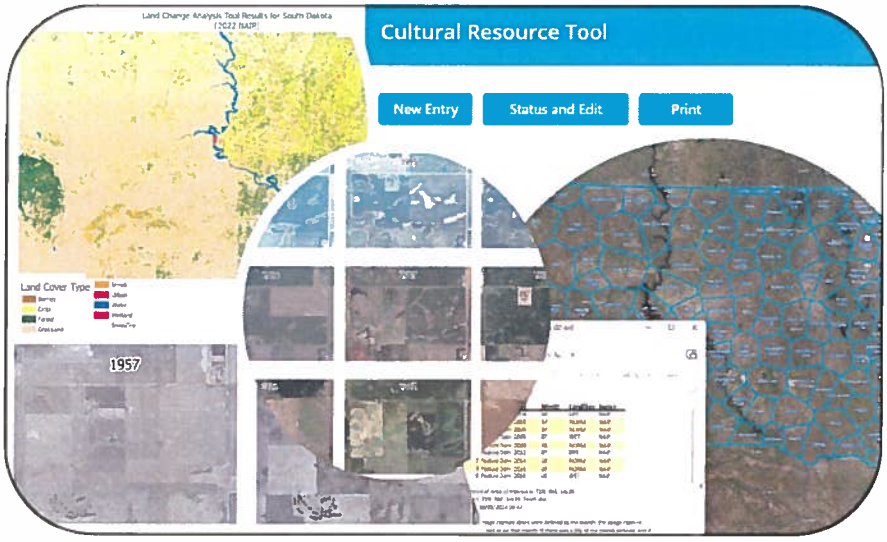




Composting facility will be used for swine and poultry.

12

Business Tools



Land Cover Analysis

Using both artificial intelligence and existing maps, full land cover map of the state were created to tell the story of the conservation efforts in South Dakota.

13

Partnership Projects

YouTube

GROWING RESILIENCE
THROUGH OUR SOILS

South Dakota GRASSLANDS INITIATIVE

DAKOTA CONSERVATION NETWORK

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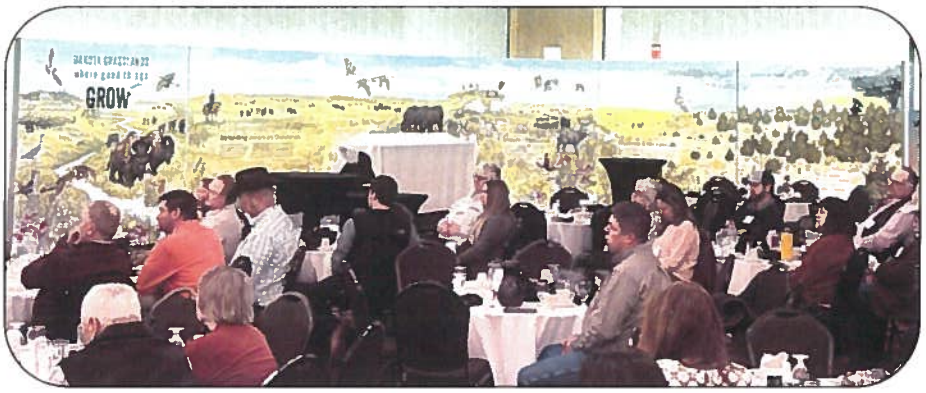
Grassland Mural



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Quick Links

YouTube: https://www.youtube.com/@NRCSSouthDakota

Where the Good Things Grow: https://wheregoodthingsgrow.org/

Growing Resilience: https://www.growingresiliencesd.com/

Dakota Conservation Network: https://conservesd.org/

Reserving Grassland Mural: https://www.wlfw.org/americas-grasslands-exhibit-request/

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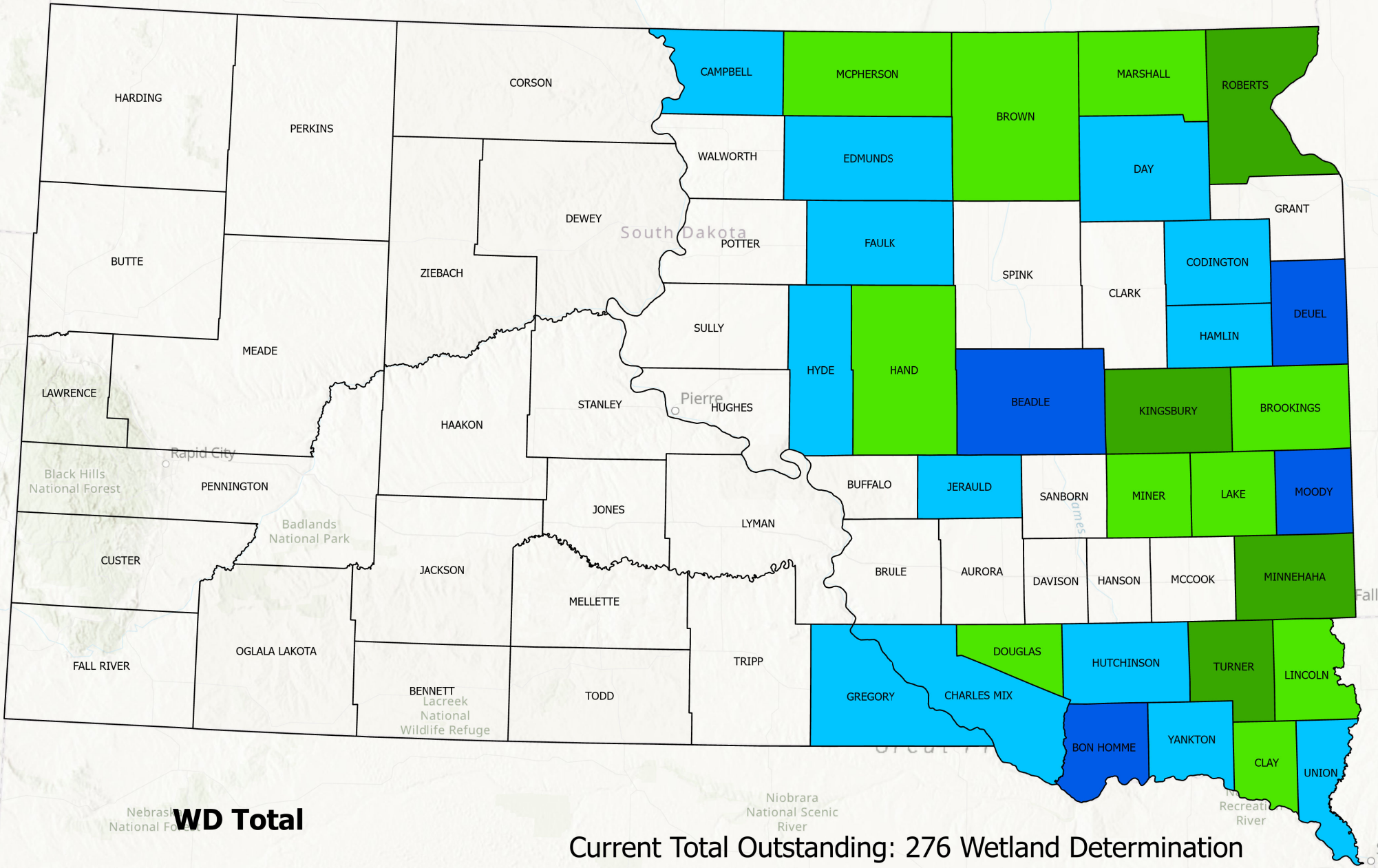
SOUTH DAKOTA WETLAND DETERMINATIONS (as of Dec.10th,2024)



WD Total

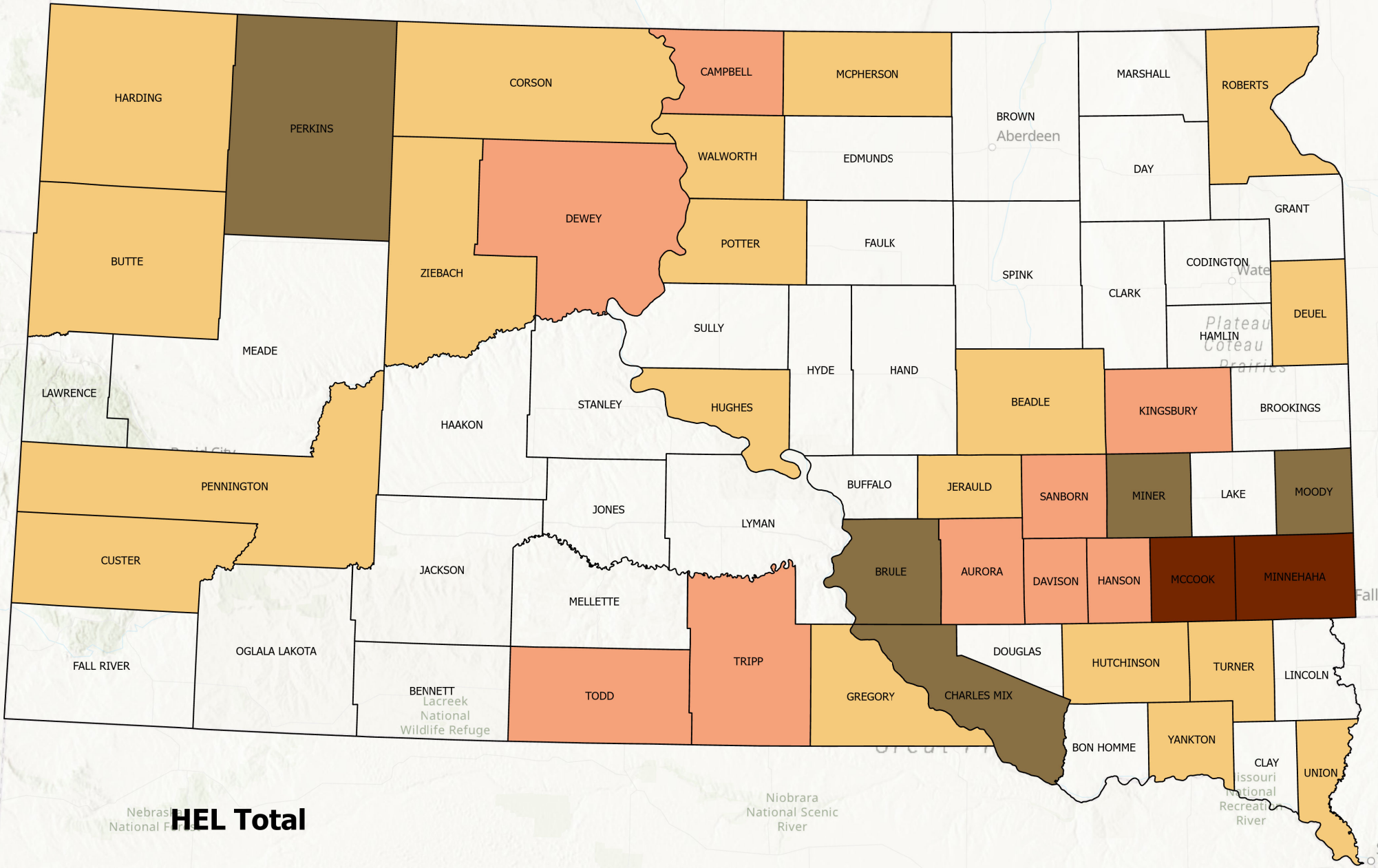
	1-4		19-21
	5-8		24-29

Current Total Outstanding: 276 Wetland Determination

Outstanding Potential Violations: 50

WD Workload Completed FY25: 89

SOUTH DAKOTA HIGHLY ERODIBLE LAND DETERMINATIONS (as of Dec.10th,2024)



HEL Total

1-4	10-13
5-9	30-40

Current Total Outstanding: 221 Highly Erodible Land Determinations

HEL Workload Completed FY25: 244

South Dakota Mitigation Bank Transaction Summary

Grace Mitigation Bank 10.6 acres proposed Lower Big Sioux GSA

Transaction Date	Transaction Type	HGM Wetland Class	Acre-Credits	Functional Credit Units (FCUs)	Geographic Service Area
5/31/2023	Deposit	Prairie Pothole/	3.9	18.7	Lower Big Sioux
9/13/2023	Withdrawal	Prairie Pothole/	3.1	10.0	Lower Big Sioux
9/19/2023	Withdrawal	Prairie Pothole/	0.3	0.9	Vermillion
7/8/2024	Deposit	Prairie Pothole/	1.9	12.5	Lower Big Sioux
8/19/2024	Withdrawal	Prairie Pothole/	2.4	9.4	Lower Big Sioux

Mergen Mitigation Bank 48.9 acres proposed Lower Big Sioux GSA

Transaction Date	Transaction Type	HGM Wetland Class	Acre-Credits	Functional Credit Units (FCUs)	Geographic Service Area
5/11/2022	Deposit	Prairie Pothole/	16.1	88.5	Lower Big Sioux
9/1/2022	Withdrawal	Prairie Pothole/	5.0	36.9	Lower Big Sioux
9/2/2022	Withdrawal	Prairie Pothole/	4.9	18.3	Lower Big Sioux
9/3/2022	Withdrawal	Prairie Pothole/	0.9	3.3	Lower Big Sioux
9/4/2022	Withdrawal	Prairie Pothole/	1.9	11.8	Lower Big Sioux
9/5/2022	Withdrawal	Prairie Pothole/	1.3	4.0	Vermillion
9/6/2022	Withdrawal	Prairie Pothole/	1.8	8.7	Vermillion
8/8/2023	Deposit	Prairie Pothole/	9.4	59.0	Lower Big Sioux
10/30/2023	Withdrawal	Prairie Pothole/	7.8	7.5	Lower Big Sioux
12/8/2023	Withdrawal	Prairie Pothole/	0.4	0.5	Lower Big Sioux
3/28/2024	Withdrawal	Prairie Pothole/	0.7	2.2	Upper Big Sioux
4/16/2024	Withdrawal	Prairie Pothole/	0.8	2.2	Lower Big Sioux

Nelson Mitigation Bank 12.2 acres proposed Vermillion GSA

Transaction Date	Transaction Type	HGM Wetland Class	Acre-Credits	Functional Credit Units (FCUs)	Geographic Service Area
12/26/2019	Deposit	Prairie Pothole/	4.2	22.1	Vermillion
1/29/2020	Withdrawal	Prairie Pothole/	0.5	2.3	Vermillion
1/29/2020	Withdrawal	Prairie Pothole/	1.9	11.5	Vermillion
6/4/2020	Withdrawal	Prairie Pothole/	0.6	3.4	Vermillion
11/17/2020	Withdrawal	Prairie Pothole/	0.5	1.6	Vermillion
6/10/2021	Deposit	Prairie Pothole/	2.3	14.9	Vermillion
10/19/2021	Withdrawal	Prairie Pothole/	0.4	1.9	Vermillion
4/12/2022	Withdrawal	Prairie Pothole/	1.7	9.3	Lower Big Sioux
4/13/2022	Withdrawal	Prairie Pothole/	0.3	0.9	Vermillion
10/11/2022	Deposit	Prairie Pothole/	2.8	22.9	Vermillion
12/2/2022	Withdrawal	Prairie Pothole/	2.4	7.8	Lower James
12/29/2022	Withdrawal	Prairie Pothole/	0.4	1.2	Vermillion
12/29/2022	Withdrawal	Prairie Pothole/	0.5	2.5	Vermillion

7/8/2024	Deposit	Prairie Pothole/	2.2	8.0	Vermillion
8/19/2024	Withdrawal	Prairie Pothole/	0.3	1.2	Lower Big Sioux

Peterson Mitigation Bank 93.6 acres proposed Middle James GSA

Transaction Date	Transaction Type	HGM Wetland Class	Acre-Credits	Functional Credit Units (FCUs)	Geographic Service Area
7/12/2019	Deposit	Prairie Pothole/	34.6	156.6	Middle James
10/15/2019	Withdrawal	Prairie Pothole/	0.2	0.7	Middle James
1/8/2020	Withdrawal	Prairie Pothole/	1.2	0.1	Middle James
6/25/2020	Withdrawal	Prairie Pothole/	11.6	54.8	Upper James
10/26/2020	Withdrawal	Prairie Pothole/	1.5	5.8	Middle James
8/28/2020	Withdrawal	Prairie Pothole/	1.2	3.5	Upper James
4/12/2022	Withdrawal	Prairie Pothole/	2.9	11.4	Middle James
9/22/2022	Deposit	Prairie Pothole/	16.9	104.4	Middle James
1/17/2023	Withdrawal	Prairie Pothole/	26.9	106.7	Middle James
3/13/2023	Withdrawal	Prairie Pothole/	1.4	10.0	Upper James
3/13/2023	Withdrawal	Prairie Pothole/	3.7	12.8	Upper James
4/3/2023	Withdrawal	Prairie Pothole/	4.8	19.5	Lower James
10/5/2023	Deposit	Prairie Pothole/	22.7	121.9	Middle James
5/10/2024	Withdrawal	Prairie Pothole/	14.8	101.5	Middle James
5/30/2024	Withdrawal	Prairie Pothole/	0.2	0.7	Middle James
5/30/2024	Withdrawal	Prairie Pothole/	1.4	4.6	Middle James
8/19/2024	Withdrawal	Prairie Pothole/	0.2	0.7	Middle James
9/30/2024	Withdrawal	Prairie Pothole/	0.6	2.7	Upper James
9/30/2024	Withdrawal	Prairie Pothole/	1.4	5.9	Upper James

Oak Lake Mitigation Bank 22.7 proposed acres Minnesota GSA

Transaction Date	Transaction Type	HGM Wetland Class	Acre-Credits	Functional Credit Units (FCUs)	Geographic Service Area
6/10/2024	Deposit	Prairie Pothole/	8.4	40.0	Minnesota
7/10/2024	Withdrawal	Prairie Pothole/	0.2	0.6	Minnesota
7/10/2024	Withdrawal	Prairie Pothole/	0.1	0.3	Minnesota
8/5/2024	Withdrawal	Prairie Pothole/	0.1	0.3	Minnesota
8/6/2024	Withdrawal	Prairie Pothole/	2.3	7.8	Upper Big Sioux
8/19/2024	Withdrawal	Prairie Pothole/	0.1	0.3	Minnesota
9/30/2024	Withdrawal	Prairie Pothole/	5.0	24.4	Minnesota
9/3/2024	Withdrawal	Prairie Pothole/	0.2	0.4	Minnesota
9/30/2024	Withdrawal	Prairie Pothole/	0.4	1.5	Minnesota

Soil Carbon Monitoring Network Collaboration Guidance

Introduction

The Soil Carbon Monitoring Network (SCMN) team is collecting field data to monitor and track carbon sequestration and trends and the impact of management practices. The SCMN team will conduct soil sampling and perennial biomass and management data collection on sites across the United States. Data collection started in fiscal year 2024, is expanding to more sites in fiscal year 2025, and will be fully implemented on the remaining sites between fiscal years 2026 and 2030. Resampling of sites is planned to begin in fiscal year 2030 on a 5- to 10-year recuring basis to monitor soil changes over time.

The goal of the SCMN is to collect field-based data to assess and track trends related to soil carbon sequestration associated with conservation programs and management practices on cropland, pastureland, and rangeland across the country. The SCMN is one of seven action areas for the implementation of the Inflation Reduction Act greenhouse gas quantification effort (PL 117-169 - Section 21002(a)(2)).

Most of the sampling sites for the SCMN are on producer-controlled private lands. Collaboration between the SCMN team, partners, and States will focus on assistance at the field office level to gain producer permission, clear cultural resource requirements, and capture management information to complete data collection. Sampling sites may also be on public sites.

The information gathered from this effort will be used to:

- Provide data for tools and models to improve conservation outcome estimates and advance the national greenhouse gas inventory.
- Establish a baseline of soil carbon on farms and ranches to estimate carbon sequestration potential on working lands.
- Evaluate which management practices are most effective at increasing soil carbon sequestration.
- Provide policy makers information upon request.

The sampling design is not structured to capture statistical difference on individual farms; the design supports analysis across sites. Data privacy will be protected following statutes and codes that apply to the data. Additionally, soil carbon measurements for specific fields will be sent to landowners at their request.

Roles and Responsibilities

Deputy Chief for Soil Science and Resource Assessment (SSRA), Terron Hillsman

- Communicate to regional conservationists about SCMN activities, including logistics and progress toward SCMN goals during regularly scheduled meetings and reporting.
- Elevate questions and concerns regarding the SCMN to Gayle Barry, senior advisor national Inflation Reduction Act (IRA) coordinator, and others, as appropriate.

Soil and Plant Science Division (SPSD) director, David Lindbo

- Communicate to the Deputy Chief for SSRA about SCMN activities, including progress, logistics, and requirements.

Lead coordinator for IRA-Greenhouse Gas Action Area 1, Skye Wills

- Understand and communicate SCMN goals and objectives.
- Support the national SCMN coordinators.
- Communicate to the Deputy Chief for SSRA and to the SPSD director about SCMN activities, including progress, logistics, and requirements.

SCMN national coordinators, Tyson Morley, Maggie Payne, and Jamie Evans

- Understand and communicate SCMN goals and objectives.
- Communicate sampling site orientation locations and support regional SCMN coordinators.
- Coordinate site identification, clearance, and planning with State POCs and regional SCMN coordinators.
- Support sampling team planning and logistics.
- Manage equipment and supply purchasing.

Regional SCMN coordinators, one per SPSD soil survey region

- Understand and communicate SCMN goals and objectives.
- Assess site needs and re-assign sites as needed.
- Direct sampling team planning and logistics and schedule sampling events.
- Coordinate sample shipment to appropriate labs.
- Ensure that State POC has the appropriate support and resources to gain producer permission, secure cultural resources clearance, gain 811 clearance, and collect management data.

State Conservationists

- Designate and maintain a State NRCS SCMN POC.
- Communicate to regional conservationists any questions or concerns regarding the SCMN.

State NRCS SCMN POCs

- Understand and communicate SCMN goals and objectives.
- Communicate with State and field office staff about the SCMN.
- Elevate any questions or concerns regarding the SCMN to the regional SCMN coordinator or to the State Conservationist.
- Lead identification of potential sampling sites, gaining producer permission, securing cultural resources clearance, gaining 811 clearance, and collecting management data. As feasible, assist with sampling events.
- Collaborate with conservation district POC on shared SCMN tasks.

State NRCS staff

- Understand SCMN goals and objectives.
- Assist with gaining producer permission, securing cultural resources clearance, and collecting management data. As feasible, assist with sampling events. Elevate any questions or concerns regarding the SCMN to the State NRCS SCMN POC.
- Collaborate with conservation district POC on shared SCMN tasks.

SPSD staff

Participation on sampling teams will vary by season and fiscal year due to sampling site locations and needs. Trained staff will form sampling teams as available and provide training to expand the number of teams throughout fiscal year 2025.

- Conduct soil sampling.
- Manage data collection.
- Conduct initial sample preparation and bulk density analysis.

National Association of Conservation Districts (NACD)

- Understand and communicate SCMN goals and objectives.
- Coordinate with SCMN partnership coordinator to develop and disseminate outreach materials.
- Identify conservation district (CD) POC in each state to assist with SCMN tasks.
- Identify appropriate landowner contacts for sampling sites in collaboration with State SCMN POC and by leveraging NACD Soil Health Champions Network and the network of NACD member State and Territory associations of conservation districts and individual conservation districts.
- As appropriate, work with State NRCS SCMN POC and NRCS State staff to gain producer permission, secure cultural resources clearance, and gain 811 clearance.
- Collect management data from participating land managers.
- Support sampling team planning, logistics, and sample collection.
- Elevate any questions or concerns regarding the SCMN to partnership coordinator, regional SCMN POC, or other appropriate SCMN leaders.

SCMN Data Collection Workflow

1. Sampling sites are identified by either SCMN State NRCS POCs, the SCMN team, CD staff, or SCMN regional coordinators.
2. SCMN regional coordinators assess and prioritize sites to be sampled.
3. SCMN regional coordinators work with State SCMN NRCS POCs, CD staff, and appropriate State field office staff to:
    a. Secure permissions for sampling sites through letters, phone calls, or personal visits. They will stop work if permission is denied.
    b. Identify specific 10-acre areas and sampling points within the identified fields.
    c. Secure cultural resources clearance guided by State-specific requirements. They will stop work if site does not achieve cultural resources clearance.

   d. Secure 811 clearance for site.
4. SCMN regional coordinators will schedule sampling activities and identify individuals to participate on sampling team.
5. The sampling team will conduct soil sampling and biomass observation. A sampling team will consist of at least:
   a. Two soil scientists
   b. One plant identification expert (ecologist, rangeland specialist, etc.)
   c. Three assistants
      (1) One assistant will support a soil scientist with GPS, flag setting, and photos.
      (2) One assistant will assist with data recording for plant identification.
      (3) One assistant will support a soil scientist with recording soil pedon description data.
6. The sampling team will collect 6–15 soil cores across the 10-acre sampling site.
   a. Each core will be about 6.4 cm (2.5 in) in diameter and collected to a depth of no deeper than 100 cm (40 in) or to a root limiting layer with a hydraulic probe, an auger and slide hammer, or, when coring is not an option, a hand-dug pit. See figure 1 for images of sampling techniques.
   b. The team will collect an additional 15–18 soil probe (satellite) samples. See figure 2 for diagram of sampling.
      (1) Satellite samples will be collected to a depth of 30 cm (12 in) around each coring site.
      (2) Satellite samples will be collected using a 2 cm (¾-in) push probe or an auger.
   c. Cored holes and, if necessary, hand-dug pits will be excavated and closed with as little disturbance as possible. All holes will be less than 61cm by 61cm (2 ft by 2 ft).

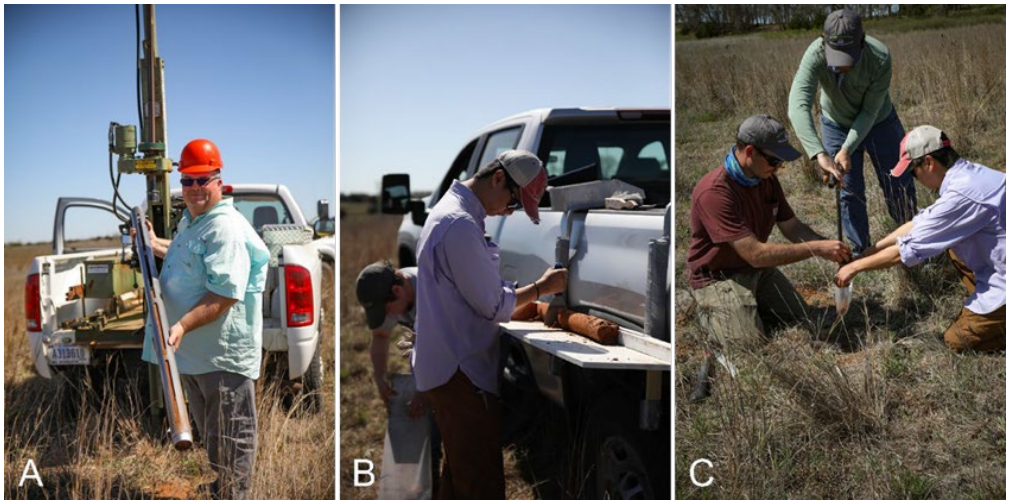


Figure 1.—A) Soil scientist showing intact soil core extracted using a hydraulic probe. B) Soil scientist preparing extracted core for sampling. C) Soil scientist taking soil cores with an auger and bagging the samples.

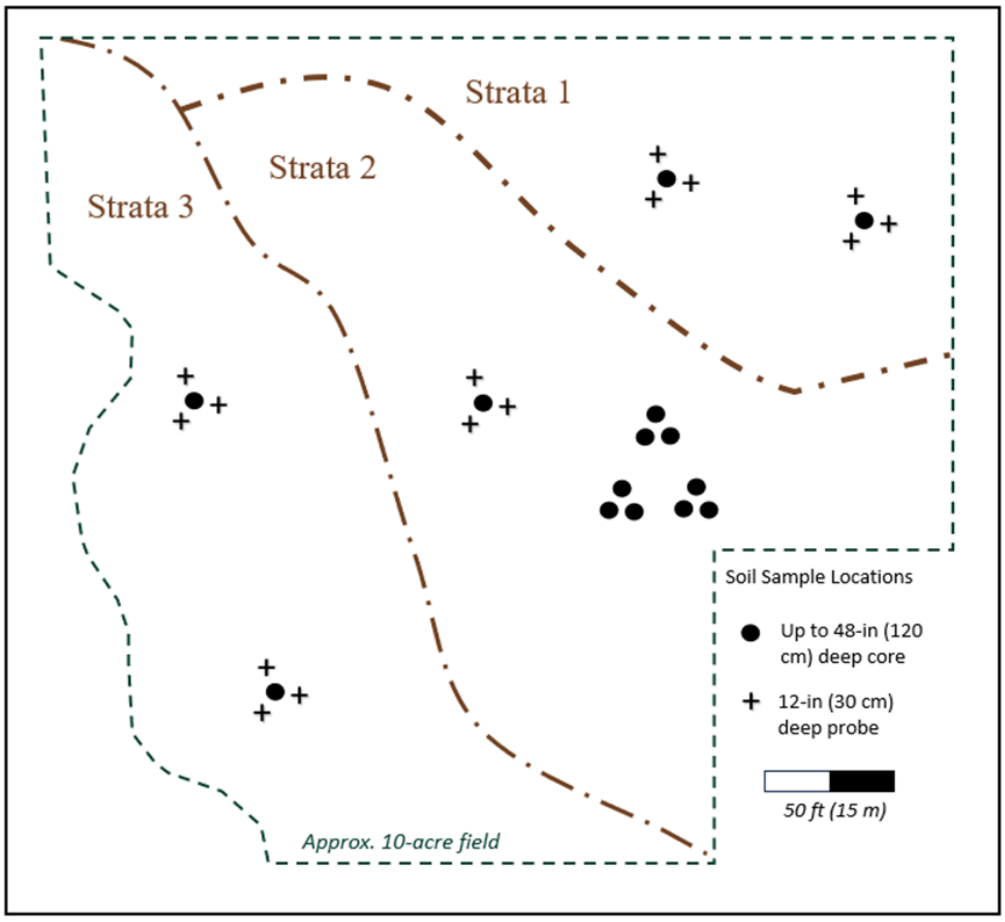


Figure 2.—An example of a sampling design in a 10-acre field with potential core locations marked by dots and probe locations marked by plus symbols. This diagram indicates the largest number of cores that could be taken on a site.

7. Soil samples will be brought to a field lab to be weighed and dried to determine bulk density and then shipped to the appropriate lab for further analysis.
8. For perennial biomass data collection, data will be collected at each site by recording cover along transects or within sampling rings. No vegetation or woody biomass will be removed or taken off-site as a part of the data gathering.
9. Conservation district partners, field office staff, or SCMN State or regional coordinators will collect management data from local NRCS staff and partners and producers.
   a. Management information to be collected includes tillage, grazing schedules, fertilizer and amendment applications, and conservation practice implementation.
   b. The team will gather management information from direct observations, interviews with the landowners or operators, communication with local conservation staff, or potentially remotely sensed information.
      (1) Interviews can be conducted via the phone or in-person and will last around 30 minutes.
      (2) A management data collection sheet will be provided by NRCS.

Collaboration Guidance: Estimated Time and Task Timeframe

Table 1 shows estimated completion times and timeframes for partnership assistance tasks. The completion time is the number of hours needed to complete the task. The task timeframe is the estimated number of business days needed to complete the task.

Table 1: Estimated Times and Task Timeframes

Task	Completion Time (Hours)	Task Timeframe (Number of business days)	Lead
Identify potential sampling site and appropriate contacts; input site information into portal	2	5	SCMN State POCs
Communicate identified sampling sites and connect appropriate roles	4	5	Regional SCMN coordinator
Gain producer permission	2–4	5–20	SCMN NRCS State POC and CD staff
Secure cultural resources clearance	12–48	15–65	SCMN NRCS State POC, State NRCS staff, and CD staff
Submit for 811 or Digsafe review	1	1–5	SCMN NRCS State POC, State NRCS staff, and CD staff
In-field sample collection and data recording	4–8 hours per event; 6 people per event. 24–48 hours total	Dependent on time of year (crop season and weather), site owner or manager needs, and sampling team and equipment availability.	SPSD staff, CD staff, SCMN State NRCS POC, and State NRCS staff, where available
Collect management data	1–4	5–10	CD staff
Soil sample drying and weighing	2–4	10-15	SPSD staff, CD staff, and contracted labs
Total Time	48–115 (approximately 3–10 days)	30–100 (approximately 6–20 weeks)	

Additional Consideration

Conservation Evaluation and Monitoring Activity (CEMA) Soil Organic Carbon Monitoring 221 is an additional resource for conservation staff and eligible program applicants to consider as a potential avenue for soil carbon evaluation.

USDA Investment in Improved Greenhouse Gas Measurement, Monitoring, Reporting, and Verification for Agriculture and Forestry through the Inflation Reduction Act

Overview

Agricultural producers, ranchers, and forest landowners play a critical role in environmental stewardship through management. The Inflation Reduction Act, or IRA, includes historic investments to support producers in adopting climate-smart practices that can sequester carbon and reduce key greenhouse gas emissions like nitrous oxide and methane. These include practices such as nutrient management, cover crops, tillage, tree planting, and livestock management.

To better understand and measure the climate impacts of these practices and improve greenhouse gas estimates, the Inflation Reduction Act invests $300 million over eight years to support USDA's broader measuring, monitoring, reporting, and verification efforts. These funds will support a comprehensive strategy to improve data, models, and tools needed for quantifying the impact of conservation practices on greenhouse gas emissions and carbon sequestration.

Key Work Areas

After receiving stakeholder feedback through a request for information in early 2023, USDA identified two main work areas: 1) data collection and management and 2) models and tools.

Data Collection and Management

Collected data will support metrics for Natural Resources Conservation Service (NRCS) programs, strengthen models and tools, and support greenhouse gas assessment at multiple scales. Data will be used to accomplish the following goals:

- Establish and advance a Soil Carbon Monitoring Network with a perennial biomass component.
  USDA will collect field-based data on carbon sequestration and soil carbon practices. USDA will also collect data on perennial biomass such as trees.
- Establish and advance a Greenhouse Gas Research Network.
  USDA will collect data on greenhouse gases (nitrous oxide and methane) from major agricultural sources on a strategic network of sites. Agricultural sources include beef and dairy cattle production in confined and grazing operations, livestock housing, and land emissions associated with fertilizer and crop production practices.
- Improve temporal and spatial coverage of national conservation practice data.
  USDA will accelerate the collection and release of regional and national conservation trend data, provide improved and updated data for use in

Inflation Reduction Act

The Inflation Reduction Act represents the single largest investment in climate and clean energy solutions in American history. This is a historic, once-in-a-generation investment and opportunity for this country and for the rural and agricultural communities that USDA serves. It provided an additional $19.5 billion over five years for climate-smart agriculture through several NRCS-implemented conservation programs. Learn more online.

More Information

Additional information about USDA's efforts to assess and measure greenhouse gas emissions from the agriculture and forestry sectors can be found online.

national greenhouse gas inventories, and fill existing and future data gaps.

- Improve NRCS conservation practice standards and implementation data to reflect greenhouse gas mitigation opportunities.
  Data collection will improve NRCS conservation practice standards, implementation data, and training and technical guidance to increase the greenhouse gas mitigation potential of practices and the ability of NRCS to estimate outcomes.
- Expand data management infrastructure and capacity.
  USDA will set standards for data collection, metadata, processing, quality control, security, and aggregations to best utilize the collected data. USDA will strengthen information technology infrastructure to enable data interoperability.

Models and Tools

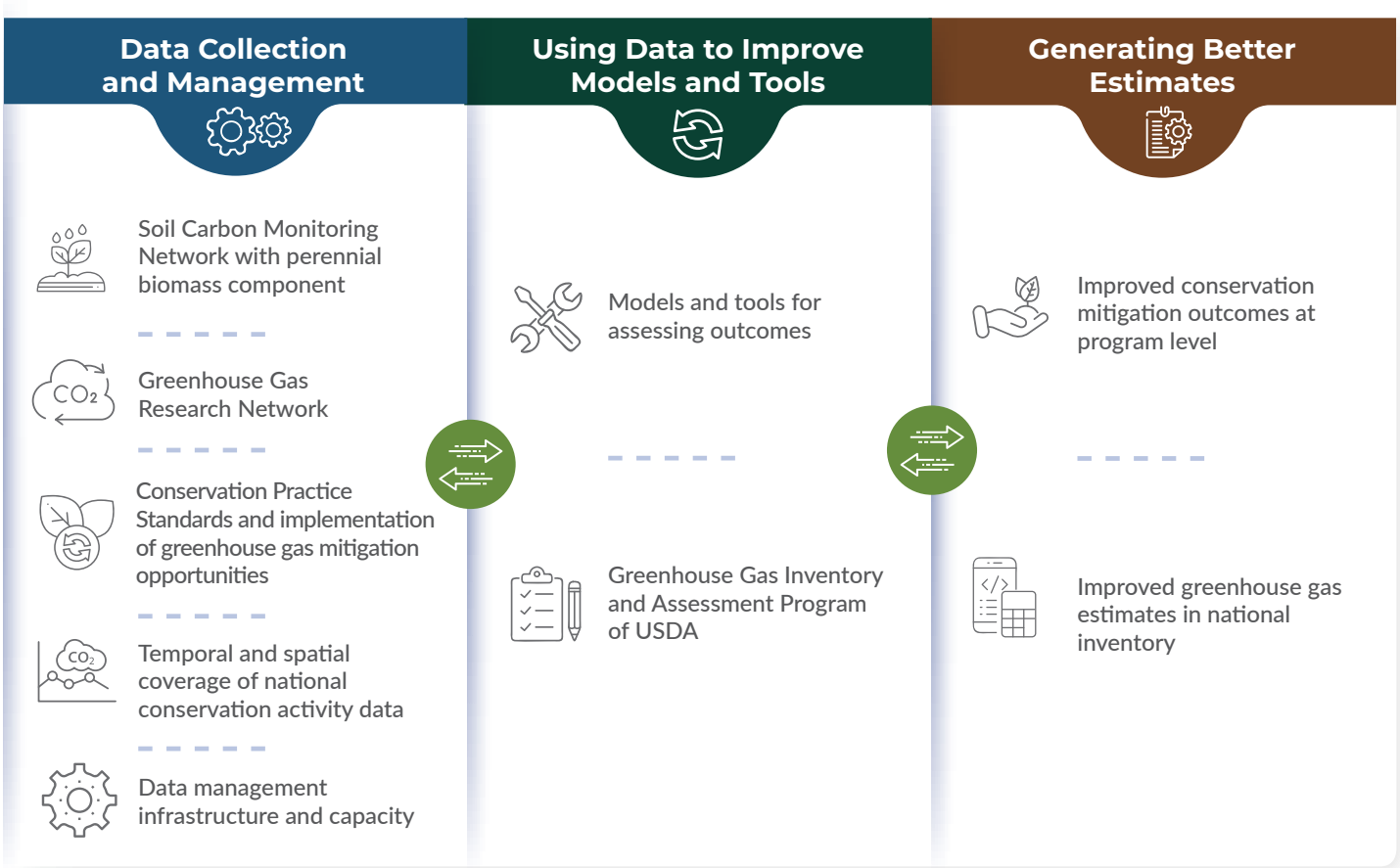
Collected data will be used to improve the accuracy of models and tools to enhance USDA efforts to support climate-smart agriculture and forestry efforts to reduce greenhouse gas emissions. Data will support the following goals:

- Advance options for models and tools to improve assessment of outcomes at farm, regional, and national scales.
  USDA will identify and prioritize model improvement needs through a model intercomparison study and other efforts. USDA will support implementation of identified model improvements to better align decision support tools with agency reporting requirements.
- Advance the USDA Greenhouse Gas Inventory and Assessment Program.
  USDA will integrate improved data, science, and models into USDA greenhouse gas reporting efforts and link improvements in national greenhouse gas quantification to improvements in other models and tools.

Collaboration

The work areas are a collaboration among USDA agencies, including NRCS, the Agricultural Research Service, the Economic Research Service, the National Agricultural Statistics Service, and the Office of the Chief Economist's Office of Energy and Environmental Policy.

How the Work Streams Fit Together



Soil Carbon Monitoring Network Data Collection: Information for Cultural Resources

Introduction

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- Provide data for tools and models to improve conservation outcome estimates and advance the national greenhouse gas inventory.
- Establish a baseline of soil carbon on farms and ranches to estimate carbon sequestration potential on working lands.
- Evaluate which management practices are most effective at increasing soil carbon sequestration.
- Provide policy makers information upon request.

The sampling design is not structured to capture statistical difference on individual farms; the design supports analysis across sites. Data privacy will be protected following statutes and codes that apply to the data. Additionally, soil carbon measurements for specific fields will be sent to landowners at their request.

This document summarizes the soil sampling process to assist in determining the potential for sampling activity to impact cultural resources.

Overview of Disturbance

Area of potential effect is 10 acres.

- Disturbance includes 6–15 soil core samples.

  - Each core will be about 2.5 inches (6.4 cm) in diameter and collected to a depth of no deeper than 48 inches (120 cm) or to a root-limiting layer with a hydraulic probe, an auger and slide hammer, or, when coring is not an option, a hand-dug pit.
  - See figure 1 for diagram of sampling and figure 2 for images of the sampling techniques.
- Disturbance includes up to an additional 15–18 soil probe (satellite) samples.
  - Satellite samples will be collected to a depth of 1 foot (30 cm) around each coring site.
  - Satellite samples will be collected using a ¾-inch (2 cm) push probe or an auger.
- Cored holes and, if necessary, hand-dug pits will be excavated and closed with as little disturbance as possible.

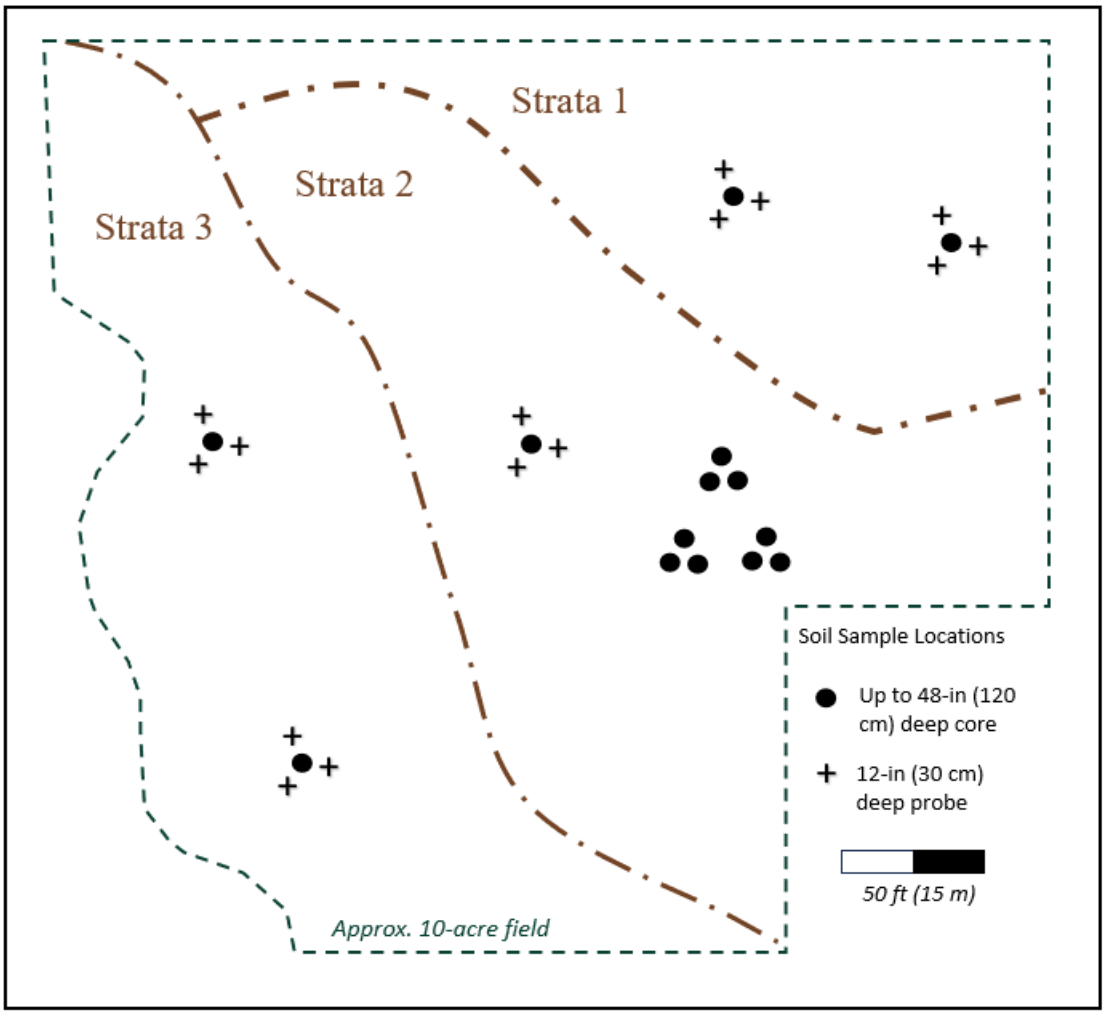

Figure 1.—An example of a sampling design in a 10-acre field with potential core locations marked by dots and probe locations marked by plus symbols. This diagram indicates the largest number of cores that would be taken on a site.

Figure 2.—A) Soil scientist showing intact soil core extracted using a hydraulic probe. B) Soil scientist preparing extracted core for sampling. C) Soil scientist taking soil cores with an auger and bagging the samples. D) Soil scientist with hydraulic probe in use. E) Soil scientist using a push probe to extract a satellite soil sample. F) Soil scientist with a slide hammer extracting a soil sample.

SOUTH DAKOTA PRIVATE LANDS PRESCRIBED FIRE FORUM

SAVE THE DATE

A one day event to discuss the who, what, where, and how of private lands prescribed fire being conducted in South Dakota

WEDNESDAY, DECEMBER 18TH, 2024
CEDAR SHORES RESORT, CHAMBERLAIN

WHO SHOULD ATTEND?

- Landowners curious about prescribed fire opportunities
- Agency, NGO Administrators and Staff
  - Private Land Service Providers
  - Prescribed Burn Associations
  - Volunteer Fire Departments
  - Educators and Trainers
  - Equipment Representatives
  - Fire Service Providers

FEATURED TOPICS

- SD Private lands prescribed fire laws and regulations
- Liabilities and other concerns
- Landowner training opportunities
- Agency Support, Programs, and Partnerships
- Landowner-led Prescribed Burn Associations
- Equipment, Service providers, and education resources
- Open forum for Questions/ Answers/ Concerns

Registration will be free and includes lunch. Display tables will be available for free of charge.

Watch for future communications with more details, including registration and vendor booth sign up.

Coordinated by SDSU Extension and Partners

South Dakota State University Extension