

Conservation planning with USDA's Natural Resources Conservation Service (NRCS)

A pre-application requirement for Individual Applicants
seeking grants from **NMDA's Healthy Soil Program**

October 18, 2023



Purpose of tonight's webinar

- To describe **NRCS's conservation planning process**
- To describe how NRCS conservation planning fits into **NMDA's Healthy Soil Program grants** – and the steps that come *after* conservation planning
- To motivate you to contact NRCS soon – that way, you can **make an appointment to complete conservation planning** well before you apply for a grant from NMDA's Healthy Soil Program

Example of a Healthy Soil Program grant-funded project

Like all HSP projects, this project started with *conservation planning with NRCS*.



Tonight's speakers

- **Dan Bloedel**

- NRCS New Mexico
- Acting state resource conservationist



- **Dean Bruce**

- NMDA's Healthy Soil Program
- Program co-lead





The following slides are from USDA's Natural Resources Conservation Service (NRCS) New Mexico

Dan Bloedel, NRCS New Mexico, acting state resource conservationist



Natural Resources Conservation Service

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CONSERVATION BASICS

GETTING ASSISTANCE

PROGRAMS & INITIATIVES

RESOURCES

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CONTACT

Have you developed a conservation game plan for your land? Work with NRCS experts to accomplish your field goals and have a winning season.

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New Mexico

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On April 27, 1935 Congress passed Public Law 74-46, in which it recognized that "the wastage of soil and moisture resources on farm, grazing, and forest lands...is a menace to the national welfare," and it directed the Secretary of Agriculture to establish the Soil Conservation Service (SCS) as a permanent agency in the USDA.



The creation of the Soil Conservation Service represented the culmination of the efforts of Hugh Hammond Bennett, "father of Soil Conservation" and the first Chief of SCS, to awaken public concern for the problem of soil erosion.



In 1994, Congress changed SCS's name to **the Natural Resources Conservation Service (NRCS)** to better reflect the broadened scope of the agency's concerns.

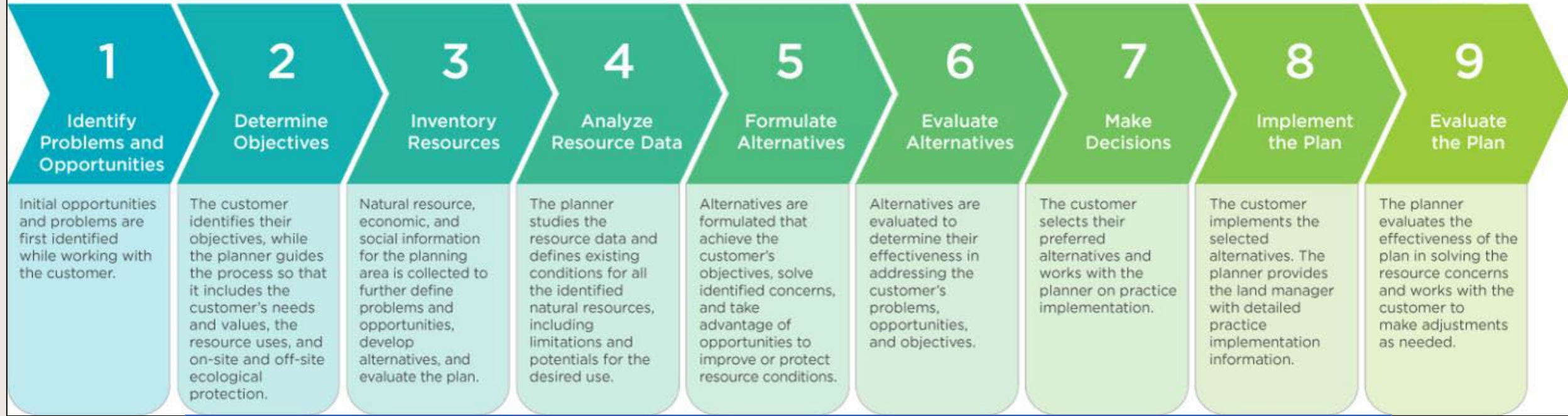


Conservation planning

- Conservation planning is natural resource problem-solving and management process whose success depends on the voluntary participation of clients
- It is based on the premise that clients will make and implement sound decisions if they understand their resources, natural resource concerns and opportunities, and the effects of their decisions

HOW CONSERVATION PLANNING WORKS

A NINE-STEP PROCESS



The conservation planning process is not necessarily linear, but dynamic and interactive

Step 1: Identify Problems and Opportunities

- Planning starts with a problem, an opportunity, shared concerns, or a perceived threat
- Problems and opportunities are usually first identified based on readily available information provided by the customer
- Sometimes opportunities and problems are identified through local Soil and Water Conservation Districts (SWCDs) or through a larger-scale conservation plan


NRCS uses a list of RESOURCE CONCERNS to classify resource problems based on Soil, Water, Air, Plants, Animals, and Energy (SWAPAE)

<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=49285.wba>

USDA United States Department of Agriculture

National Resource Concern List and Planning Criteria

Natural Resources Conservation Service (NRCS)



March 2023

Any resource concerns here?



Any resource concerns here?

- Soil Resource Concerns
- Sheet and rill erosion
- Wind erosion
- Ephemeral gully erosion.....
- Classic gully erosion
- Bank erosion from streams, shorelines, or ..
- Subsidence
- Compaction
- Organic matter depletion.....
- Concentration of salts or other chemicals..
- Soil organism habitat loss or degradation..
- Aggregate instability

Step 2: Determine Objectives

- The land user identifies their objectives
- NRCS Conservationists guide the process so that it includes both the stakeholder needs and values, the resource use, and on-site and off-site ecological protection
- Objectives can be modified as new information is gathered later in the process



Step 3: Inventory Resources

- Collect natural resource, economic and social information for the planning area
- Use the information to further define problems and opportunities
- Get as much information as possible so that the plan will fit both the needs of the land manager and the natural resources



Step 4: Analyze Resource Data

- Study the resource data using assessment tools and data to define existing conditions for the natural resources, including limitations and potential for the desired use
- This step is crucial to developing plans that will work for a land manager and their land
- It provides an understanding of the baseline conditions that will help plan and practice effectiveness

Assessment Tools

- Cropland In-Field Soil Health Assessment
- Pasture Condition Assessment
- Rangeland Health Assessment (RHA)

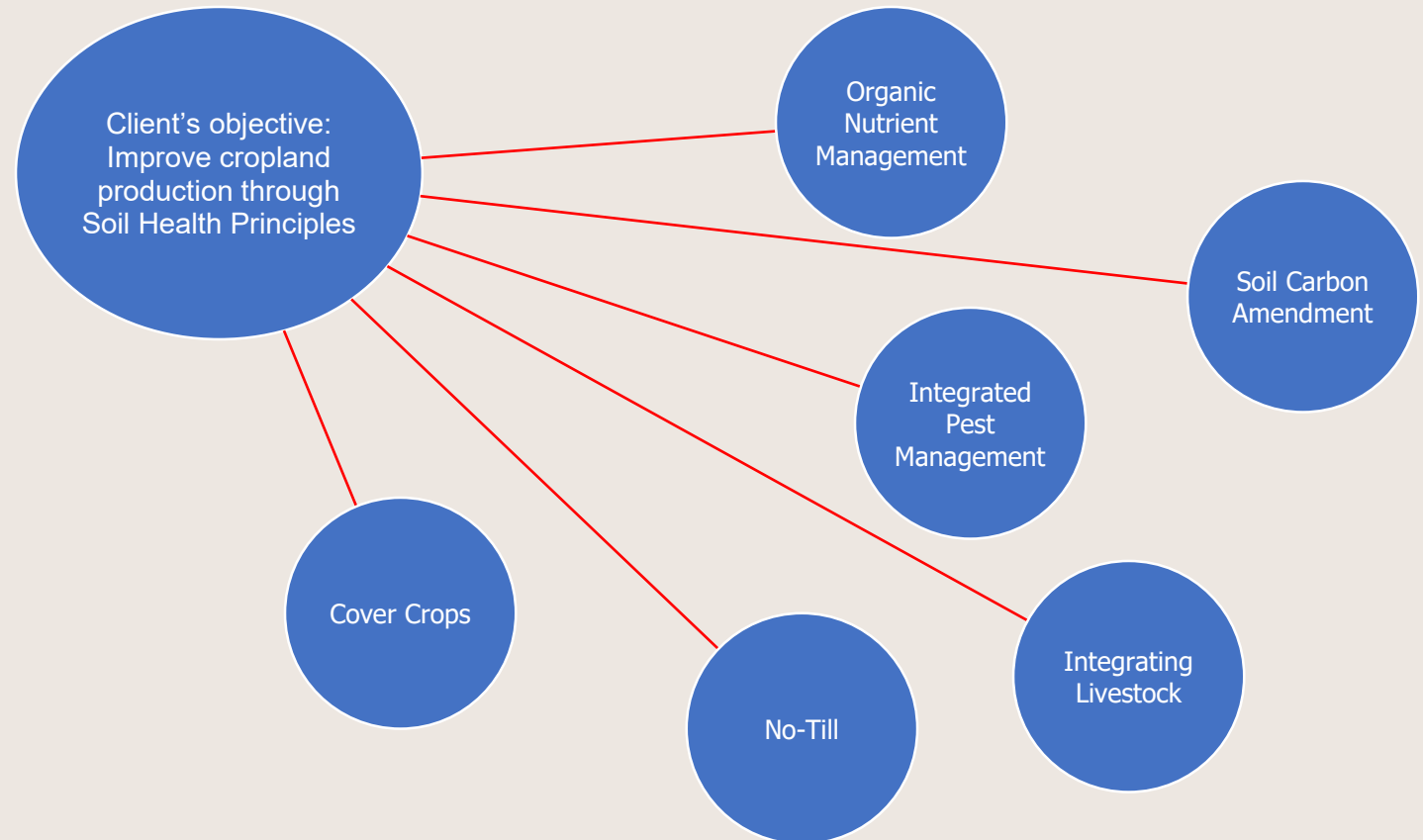
Data

- Web Soil Survey
- National Wetland Survey
- Endangered Species lists



Step 5: Formulate Alternatives

- The purpose here is to achieve the goals for the land, by solving all identified problems, taking advantage of opportunities, and meeting the needs of the planning project
- Alternatives conservation treatments are selected by the land manager



Step 6: Evaluate Alternatives

The conservationist and the land manager...

- Evaluate the alternatives to determine alternative effectiveness in addressing the customer's problems, opportunities and objectives
- Consider any possible positive or detrimental side effects of practices of each alternative (economic, ecological, etc.)
- Conservationists always provide no fewer than 2 alternatives, and what fits the current situation



Step 7: Make Decisions

- The land manager chooses which project or plan will work best for their situation
- The planner prepares the documentation



Step 8: Implement the Plan

- The process of carrying out the conservation treatments that make up the planned conservation system



Step 9: Evaluate the Plan

- Conservation planning is an ongoing process that continues long after the implementation of a conservation practice

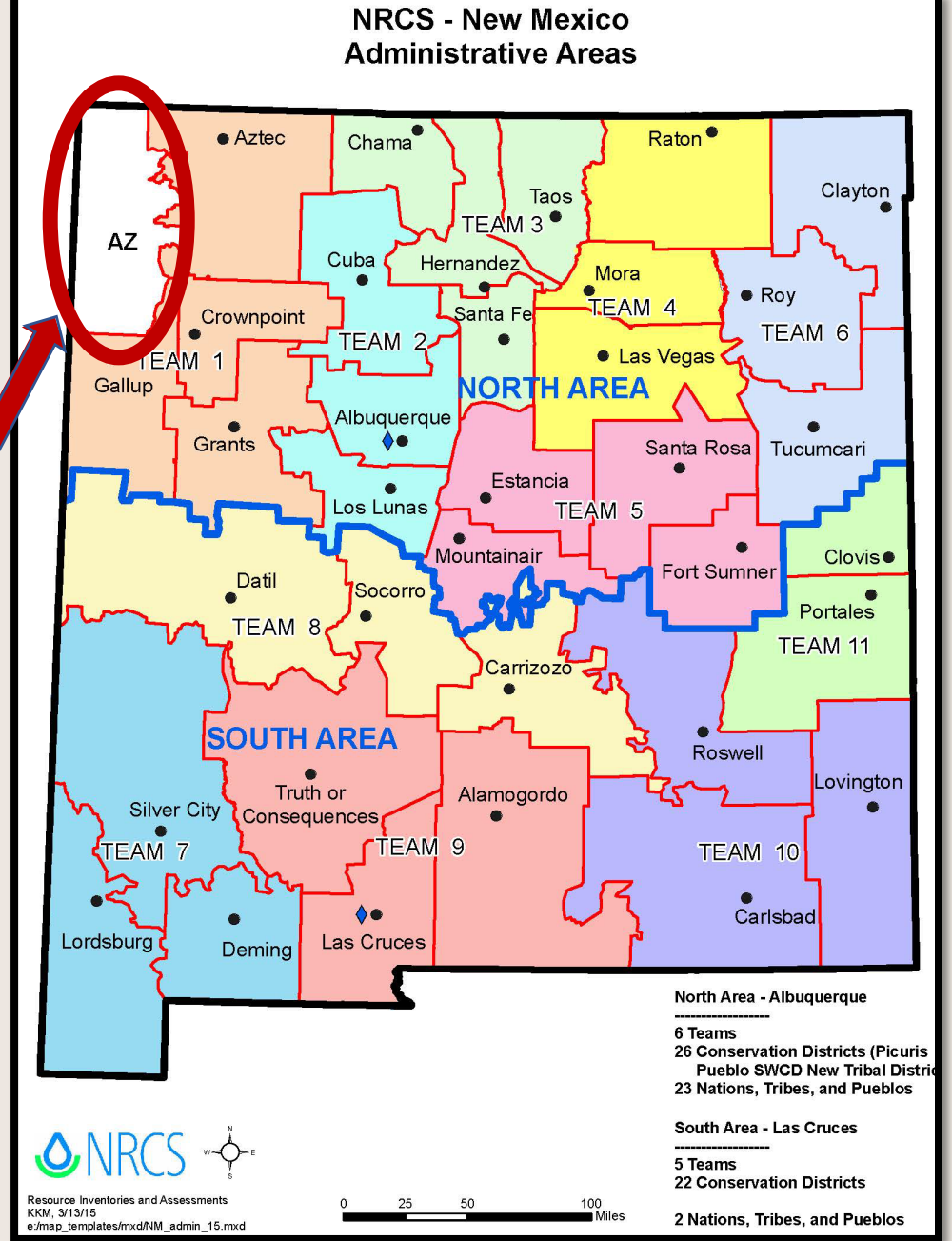




Find the NRCS Local Service Center nearest you:

<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/new-mexico/new-mexico-nrcs-contacts>

If you live in New Mexico on the Navajo Nation, contact the New Mexico office of NRCS in order to complete the conservation planning required to apply for a grant from NMDA's Healthy Soil Program





U.S. Department of Agriculture Natural Resources Conservation Service

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The following slides are from NMDA's Healthy Soil Program

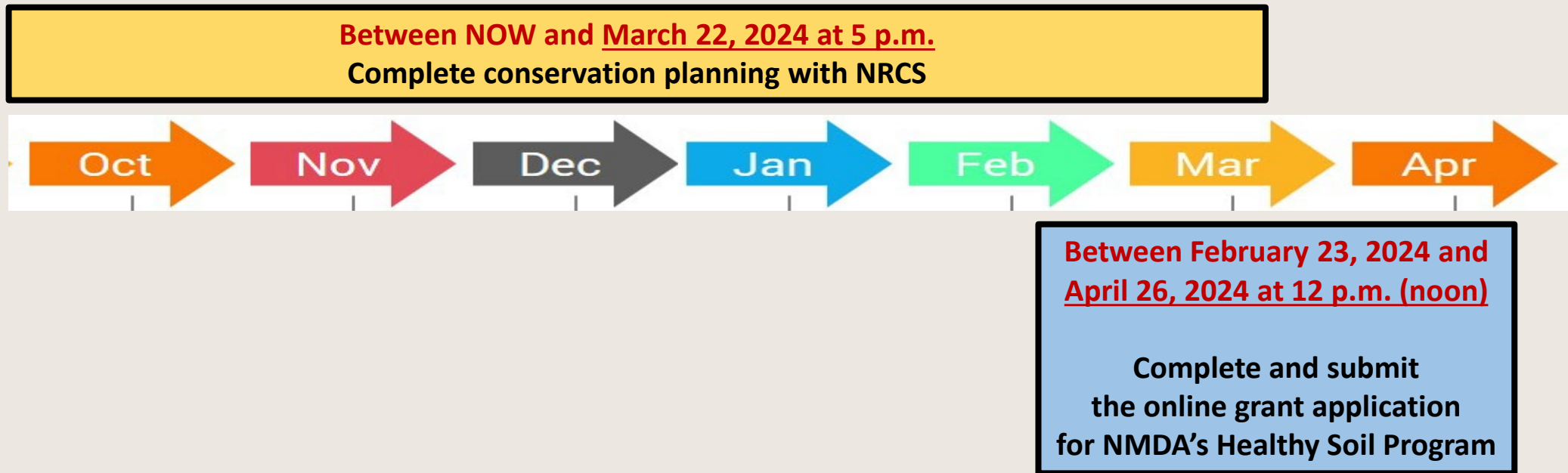
Dean Bruce, co-lead of NMDA's Healthy Soil Program

How conservation planning with NRCS fits into NMDA's Healthy Soil Program

- What you learn about your soil during conservation planning with NRCS **will determine how you design your Healthy Soil Program project:**
 - the **soil health-related resource concerns** your project focuses on
 - the **soil health principles** and **agricultural/conservation practices** your project revolves around to address those concerns
 - the **timeline** you'll follow in implementing those practices
 - the specific **goods/services** you request funding to purchase

How conservation planning with NRCS fits into NMDA's Healthy Soil Program


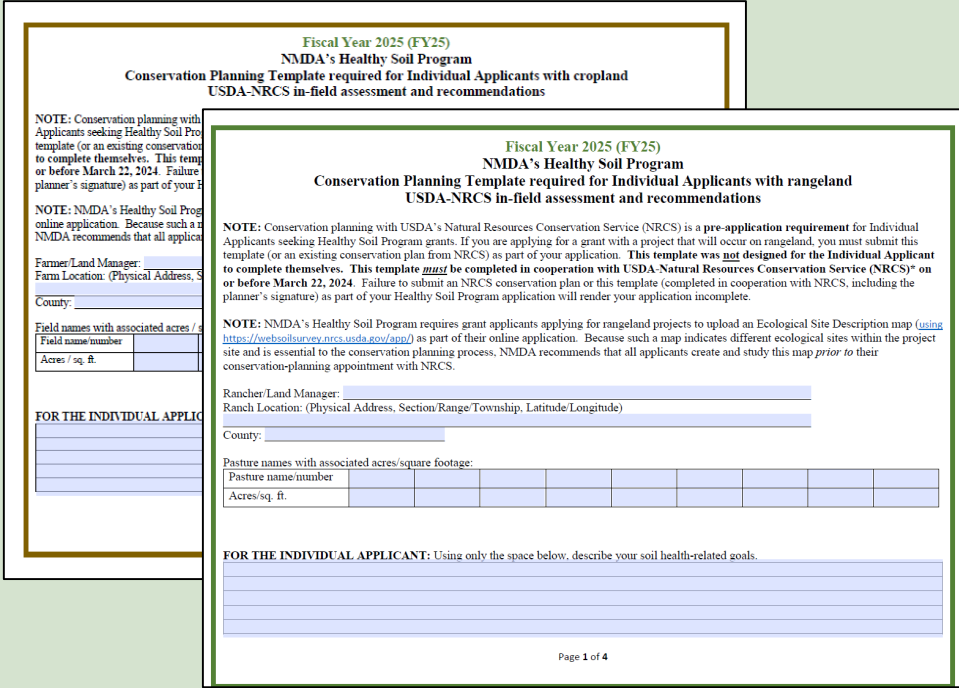
- The next application cycle for NMDA's Healthy Soil Program grants will open February 23, 2024 and will close **April 26, 2024**
 - The deadline to complete conservation planning with NRCS is **March 22, 2024**



*After you've completed
conservation planning with NRCS...
(Deadline to do so: March 22, 2024 at 5 p.m.)*

**...here are the next steps to take in order to apply for a grant
from NMDA's Healthy Soil Program.**

For Individual Applicants applying for NMDA’s Healthy Soil Program grants:
NMDA will accept either NRCS conservation planning document type:

NRCS conservation plan <i>* Must be completed by NRCS</i>	NMDA conservation planning template <i>* Must be completed by NRCS</i>
 <p style="text-align: center; margin-top: 10px;"><i>* Produced by your local NRCS office</i></p>	 <p style="text-align: center; margin-top: 10px;"><i>* Available on NMDA’s Healthy Soil Program website</i></p>

What should you do with your NRCS conservation planning documents?

- **Read (and re-read)** your conservation planning documents
 - **Ask questions** of your NRCS conservation planner if you don't understand. Your planner is there to help.
- Pay attention to the **soil health-related resource concerns** that NRCS observes on the land you manage
- Pay attention to the **soil health principles** and **agricultural / conservation practices** that NRCS recommends you apply
 - Utilize NMDA's Healthy Soil Program **Resource Concern Guide Sheets** to help select the appropriate practices
- Pay attention to the **recommended species**, as well as **seeding rates** or **application rates** of compost, manure, or other amendments
 - Your NRCS Conservation Planner can make recommendations based on **your specific soils** and **resource concerns**

Refer to NMDA's 2 resource concern guide sheets

- **The guide sheets serve multiple purposes:**
 - To help you **see the connection** between resource concerns, soil health principles, and agricultural/conservation practices
 - To **narrow down your ideas** for possible projects
 - To allow you to **research each practice (using the NRCS practice codes that are included)**, as well as how/when to properly implement it
- **Available on NMDA's Healthy Soil Program website**
 - One for cropland projects
 - One for rangeland projects
- You do NOT have to turn these in to anyone – **the guide sheets exist simply to *guide* you**

The CROPLAND resource concern guide sheet

Fiscal Year 2025 (FY25)
 NMDA's Healthy Soil Program
 Resource Concern Guide Sheet for CROPLAND

This guide sheet is designed to help you select agricultural/conservation practices to address your existing soil health-related natural resource concerns on cropland. It is intended as a starting point rather than as an exhaustive list of all resource concerns and agricultural practices that can address existing resource concerns. These agricultural practices align with those promoted by the New Mexico office of USDA's Natural Resources Conservation Service (NRCS). The three-digit codes associated with NRCS New Mexico Practice Standards are listed and hyperlinked below to provide you additional information.

The soil health principles as defined in the 2019 Healthy Soil Act are listed below. They correspond with the numbers in the right-hand column of the chart that follows.

- 1) keeping soil covered
- 2) minimizing soil disturbance on cropland and minimizing external inputs
- 3) maximizing biodiversity
- 4) maintaining a living root
- 5) integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms

Resource Concern	Agricultural Practice on Cropland	Soil Health Principle
Erosion (wind and water) Presence of eroding soil (soil movement both on to and off of the field) due to wind, rain, or irrigation water application	Cover crops to protect soil surface (340)	1, 2, 3, 4
	No-till (329) or reduced-till (345) farming techniques	1, 2, 3, 4
	Field borders (unharvested crop residue and/or high-residue plantings along field edges; shrub establishment) (386)	1, 2, 3, 4, 5
	Mulching (484)	1, 2, 3

Resource Concern	Agricultural Practice on Cropland	Soil Health Principle
Erosion (wind and water) Presence of eroding soil (soil movement both on to and off of the field) due to wind, rain, or irrigation water application	Cover crops to protect soil surface (340)	1, 2, 3, 4
	No-till (329) or reduced-till (345) farming techniques	1, 2, 3, 4
	Field borders (unharvested crop residue and/or high-residue plantings along field edges; shrub establishment) (386)	1, 2, 3, 4, 5
	Mulching (484)	1, 2, 3
Low soil organic matter Lack of organic materials at various stages of decomposition within the soil	Cover crops (340)	1, 2, 3, 4
	Organic-based soil amendments (compost, manure, biochar, etc.) (590), (484)	3
	Diverse crop rotation (cash crop) (328)	1, 3, 4
	No-till (329) or reduced-till (345) farming techniques	1, 2, 4
	Proper grazing of cover crops/cash crops (528)	3, 5
Water infiltration and percolation Poor water movement into and within the soil (ponding of water after rain events or irrigation)	Cover crop mixes with various rooting depths (340)	1, 2, 3, 4
	Organic-based soil amendments (compost, manure, biochar) (590), (484)	3
	Short-duration, high-intensity grazing (528)	5



* Available on NMDA's Healthy Soil Program website

Fiscal Year 2025 (FY25)
NMDA's Healthy Soil Program
Resource Concern Guide Sheet for RANGELAND

This guide sheet is designed to help you select agricultural/conservation practices to address your existing soil health-related natural resource concerns on rangeland. It is intended as a starting point rather than as an exhaustive list of all resource concerns and agricultural practices that can address existing resource concerns. These agricultural practices align with those promoted by the New Mexico office of USDA's Natural Resources Conservation Service (NRCS). The three-digit codes associated with NRCS New Mexico Practice Standards are listed and hyperlinked below to provide you additional information.

The soil health principles as defined in the 2019 Healthy Soil Act are listed below. They correspond with the numbers in the right-hand column of the chart that follows.

- 1) keeping soil covered
- 2) minimizing soil disturbance on cropland and minimizing external inputs
- 3) maximizing biodiversity
- 4) maintaining a living root
- 5) integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms

Resource Concern	Agricultural Practice on Rangeland	Soil Health Principle
Decreased plant productivity and health Lack of overall forage production and health of existing plant species	Prescribed grazing (528)	1, 2, 3, 4, 5
	Native grass and/or pollinator habitat establishment (550), (327)	1, 2, 3, 4, 5
	Temporary fencing * (382)	--
	Organic-based soil amendments (compost, manure, biochar, etc.) (484), (590)	3
Insufficient plant species and composition Plant community composition of warm-season grasses, cool-season grasses, forbs, and shrubs not consistent with management goals	Prescribed grazing (528)	1, 2, 3, 4, 5
	Native grass and/or pollinator habitat establishment (550), (327)	1, 2, 3, 4, 5
	Cover crops to improve soil fertility/plant diversity (340)	1, 3, 4, 5
	Temporary fencing * (382)	--
Lack of soil biodiversity A lack of diversity among the plants, animals, and soil organisms interacting with the soil	Prescribed grazing (528)	1, 2, 3, 4, 5
	Native grass and or pollinator habitat establishment (550), (327)	1, 2, 3, 4, 5
	Cover crops to improve biodiversity (340)	1, 3, 4, 5
	Temporary fencing * (382)	--

The RANGELAND resource concern guide sheet

Insufficient plant species and composition Plant community composition of warm-season grasses, cool-season grasses, forbs, and shrubs not consistent with management goals	Prescribed grazing (528)	1, 2, 3, 4, 5
	Native grass and/or pollinator habitat establishment (550), (327)	1, 2, 3, 4, 5
	Cover crops to improve soil fertility/plant diversity (340)	1, 3, 4, 5
	Temporary fencing * (382)	--
	Organic-based soil amendments (compost, manure, biochar, etc.) (484), (590)	3

* Available on NMDA's Healthy Soil Program website

After choosing the soil health principles + agricultural/conservation practices...

- Develop your timeline of activities
 - In order to be funded through NMDA's Healthy Soil Program, your activities must occur **between August 2024 and May 2025**



After choosing the **soil health principles + agricultural/conservation practices...**

- **Research the goods and services** you think you'll need in order to implement those activities – and ***get specific!***
 - WHAT ***exactly*** might you purchase? *“Cover crop seed” isn’t specific enough...what **species** of cover crop seed?*
 - HOW (in what units) are those items sold? *By the pound? By the ton? By the linear-foot? (NOTE: **Weight** measurements are better than **volume** measurements!)*
 - WHAT do those items cost? **Get a per-unit cost** – that way, you can scale up/down your project if need be

When a grant application becomes available from NMDA in **early 2024**

- **You'll be far ahead** in terms of satisfying the application requirements
- **You'll be able to focus on responding to the application questions** (why you're applying for the grant, what outcomes you expect, etc.)

Questions?

- USDA-Natural Resources Conservation Service (NRCS)

www.nrcs.usda.gov/contact/find-a-service-center



- NMDA's Healthy Soil Program

<https://nmdeptag.nmsu.edu/healthy-soil-program.html>



Subscribe to our weekly e-newsletter for grant-application tips and deadline reminders, as well as soil health news, events, and other resources/opportunities