

SOIL HEALTH MANAGEMENT MAP Regenerative Stewardship Curriculum: Discover & Define



REGENERATIVE STEWARD COURSE PLAN



Overview

PURPOSE

This tool is used to create a clear, concise map of the land base that communicates scale and location of practices.

PREP ITEMS

None.

TIMING

Soil Health Management practice (SHMP) maps can be presented in the final stages of planning, but it is recommended to draft a digital map before initial site visits to reference throughout the planning process.





Overview



DELIVERY

SHMP maps can be presented in digital or printed formats. They are highly effective when paired with a Gantt chart that corresponds to the timing of the implementation of certain practices.

OUTCOME

A clear communication tool that can be shared with the steward and all relevant stakeholders to the land based business, including prospective contractors, other conservationists, agricultural engineers, range scientists, and more.



Planner.



Introduction

Having a clear, concise map of the land base to reference throughout the planning process can be incredibly helpful for planners as the steward identifies their resource concerns and business priorities.

Planners should draft a digital map before the first site visit so that they can refer to it throughout the planning process. You can use plat maps, Google Earth, request a map of the land base from the steward, or use <u>Web Soil Survey</u> to gain a better understanding of the resources under management.

It is recommended to then bring a printed version of the map with you on any farm or ranch visit. Maps will also be used as an integral part of the Deliver phase of planning to demonstrate location and scale of the recommended practices.





Mapping Tips

Recommended items to include on the map:

- Title
- Legend with the NRCS practice codes
- Location (county, state, and any necessary GPS coordinates)
- Scale bar
- Compass rose

Additional items to include on supplemental maps:

- Roads
- Water points
- Structures
- Field boundaries
- Soil types
- Conservation practice locations
- Resource assessments
- Existing vegetation and waterways





Example Mapping Scenario

In this example, a 30 acre parcel of land had identified and shared multiple soil health resource concerns. The producer wanted to try several ideas in combination to help restore the soil's health.

Mad Agriculture used maps and tables to categorize the farm into management zones according to their ecological state in transition, utility and current use. At this farm, we identified three specific management zones: go-back land, cultivated land, and a barn yard or high use zone. The historic use of the land was dryland annual crop production (e.g. wheat, millet, sunflowers).

The following slide shows the map that we created to illustrate this operation's management zones.



Example Map#1: Management Zones

Example Farm A



8/11/2021

	1:4,514					
	0.03	0.06				0.11 mi
+	-1		+	-	-	
	0.04	0.09				0.18 km

Example Mapping Scenario

To drive life back into the soil we recommended using an annual cover crop mix, applying compost, and implementing overhead irrigation. We also recommended the installation of a windbreak or shelterbelt to reduce the impacts of wind on the soil.

Rates of the cover crop seed mix, compost and water to be implemented were to be determined based on future soil health assessments. We recommended using a combination of both qualitative and quantitative methods to determine the fertility and soil health of the management zones.

The following map illustrates the locations for which we recommended the above practices for enhancing soil health on the operation.



Example Map#2: Practice Locations



Example Table

Practice Code	Practice	Timing	Management Zones (Map 1)	Practice location and acres (Map 2)	Resource concern
340 (dark green)	Cover crops	Spring 2022	Cultivated and go- back land Southern	11.6	Organic matter depletion, aggregate stability, biological habitat
380 (brown)	Windbreak/shelt erbelt	Spring 2022, Fall 2022	Northern Property Boundary	1.15	Erosion: wind
386 (orange)	Field border	Fall 2022	Western Property Boundary	2	Pollinator habitat
327 (lime green)	Conservation cover	Fall 2022 or Spring 2023	Go-back land Northern	5.3	Organic matter depletion, aggregate stability, biological habitat
808 (black)	Soil carbon amendment	Spring 2022	Go-back land Southern	6.2	Organic matter depletion, aggregate stability, biological habitat
449 and 443 (dark green)	Irrigation water management	Spring and Summer 2022	Cultivated land and go-back	11.6	Inefficient water use

This table shows the information on Map #1 and Map #2 in one place.



The End

Continue exploring tools for the first phase of our Regenerative Stewardship Curriculum, Discover & Define, here.

