



MONTANA ASSOCIATION of  
CONSERVATION DISTRICTS  
*We're growing Montana's future.*

# Soil Corps Feasibility Report

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## Overview

The Montana Association of Conservation Districts (MACD) received an AmeriCorps planning grant through the Montana Governor's Office of Community Service to assess the feasibility of starting a Soil Corps AmeriCorps program in Montana. This report summarizes survey responses, feedback from discussion forums, and recommended next steps.

MACD supports Montana's Conservation Districts in promoting local, voluntary, common sense conservation of soil, water and other natural resources. They have been a key partner in the Big Sky Watershed AmeriCorps programming that focuses on watershed conservation.

AmeriCorps is a national community service program that engages citizens of all ages to serve their country in various capacities. A Soil Corps position could potentially be a full- or part-time professional position over a span of a couple of months to a year, that could focus on capacity-building needs surrounding soil health. The original intent was that this position could potentially help a district or host site with outreach, education, soil samples, mitigation of drought, among other individualized methods that support overall soil health initiatives on public lands.

This report concludes the two-step process of identifying Soil Corps need in Montana: 1) Surveying conservation districts and partner organizations on their soil conservation needs and; 2) Hosting in-person discussion forums in communities across the state to better understand and identify on-the-ground needs.

## Goals of Survey & Discussion Forums

1. To identify the soil conservation needs of Conservation Districts and other potential AmeriCorps host sites.
2. To identify a need for a Soil Corps program separate from Big Sky Watershed Corps or if there is a way to collaborate within the existing structure.
3. To identify site capacities to aid in program planning and potential implementation.

## Survey

The survey was planned in collaboration with state-wide conservation partners such as the Montana Conservation Corps, Montana Watershed Association and the Natural Resources Conservation Service to begin to identify potential needs for a Soil Corps AmeriCorps position. The survey focused on questions regarding organizational capacity to host a new



position, familiarity with AmeriCorps programming, and whether a Soil Corps position was a good fit or if it was duplicative of Big Sky Watershed programming.

34 of 58 Conservation Districts and 8 partner organizations answered the survey between 11/16/21 and 12/20/21 both by Google form or from taking the survey verbally and recorded by Shay Farmer in person or via phone. There were “yes” and “no” questions, as well as open ended question and response format.

A full list of questions can be requested. Below are highlighted responses in regards to needs expressed from those that took the survey.

## Highlight Questions

Capacity of host site organizations was a significant focus of this survey. Most organizations that answered the survey had small, part-time, or not enough staffing to implement all of the soil conservation projects they were interested in doing. There were a variety of needs based upon the site’s location and how well funded they were.

Open-ended questions captured potential project needs which varied from soil sampling to soil assemements, education and outreach, and bolstering capacity, among other activities. Most districts and organizations that responded to the survey had between 1-2 employees.

### **Question: Does your organization have unmet need in regards to soil conservation?**

There were a variety of answers to this question. Some were simple no’s and yes’s, but a majority of organizations had specific ideas that would help build soil health in their county or region. Select responses are included below and range from educational projects, to workshops, and help with general understanding resources needed to increase soil health practices.

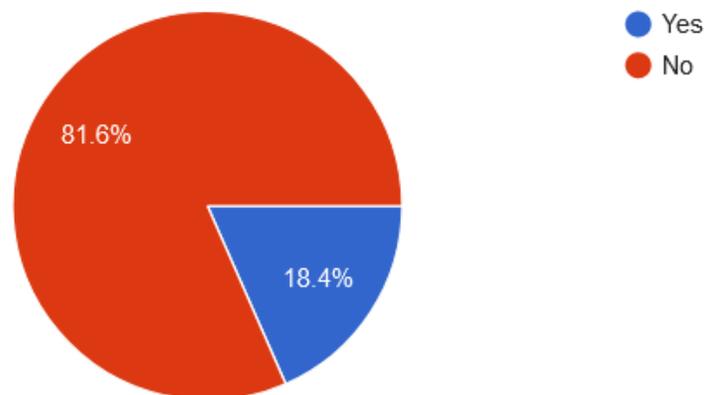


1. "Yes."
2. Paraphrased: "...Looking to figure out how to implement soil testing across acres...physical, the people who can conduct surveys and collect the data, send data to lab....some sites are really remote...independant VS team position?...we would need a team for two or three weeks, no need for a full summer position..."
3. "No."
4. "It would be nice to have more soil health information; problems with soil acidity related to fertilizer use."
5. Paraphrased: "Need more money and a no till drill."
6. "Funding and support for demonstration and research plots."
7. "Saline seep, some overgrazing, alternative crop."
8. Paraphrased: "I think so. Coal seam fires ruin the soil. Need to bring the land back into production. Due to the fires this year, we have an immediate need to sample soil & are looking at how to enter data for a grant."
9. "Yes- we could be doing more but staffing capacity is an issue. Been a lot of start and stops because of Covid; a lot more we could do to promote the programs. "
10. We are..."a big agricultural county, but that is not the focus currently."
11. We need "financing for projects...65,000 acres are coming out of CRP next year- help producers to figure out what they're going to do with all this acreage."
12. "Yes and no. Our district lacks some funding. Schools just went to a 4 day week school week. Help with ed for students..."

13. "It would be nice to get a no till drill; have a grass drill currently; no till is more popular and better for the soil."
14. "If we had a lot of money we would have another employee that would work only on outreach and education. "
15. "Educational Outreach."
16. "Probably always."
17. "Yes, it would be good to have more knowledge and access to funding related to soil conservation. Ideally, our riparian restoration projects could be more comprehensive and include strategies for upland conservation as well. I don't think we have the need for a BSWC member specific to soil conservation but could dedicate part of our member's time to this topic."
18. "We could always do more. We also work in riparian areas. Help with AIS issues. Have a project at the Pugsley Bridge, the project is only 1/2 complete, and don't have funding to finish.."
19. More educational outreach for pollinator promotion (outdoor classroom), specific projects that address resource concerns like water quality and quantity. Focused projects that address weed management and pest control (Grasshoppers).
20. "Not sure."
21. "We could definitely increase the focus of soil conservation in the Ruby Valley."
22. Grant funding opportunities.
23. "Yes. The community is interested in soil moisture content."
24. "We could do more riparian education in regards to soil erosion near stream banks."
25. "More educational opportunities on No Till, Cover Crops, and Saline Seep."
26. "We would like to do more education but it's hard with only one part-time employee. One of the hardest obstacles to overcome is producer participation."

### Does your organization currently have the capacity to tackle some of these conservation issues?

38 responses



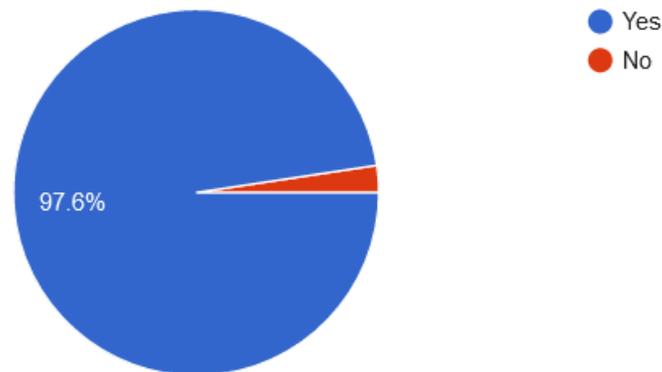
### Question: What prevents you from working on them and what types of projects could you use help on?

When asked what prevented organizations from working on additional soil health projects, 75.8% of respondents indicated that staffing was an obstacle, 69.7% indicated time as a constraint, 69.7% chose budget as a constraint, 30.3% cited subject knowledge, and 9.1% stated, "other," as a reason.

82.8% of respondents indicated that they could use help implementing workshops, 72.4% stated they could use help with youth engagement, 72.4% said they could use help with soil data collection with ongoing studies, 79.3% said they could use help organizing peer-to-peer learning opportunities. A smaller percentage, 27.6% indicated that they could use help with general "project implementation."

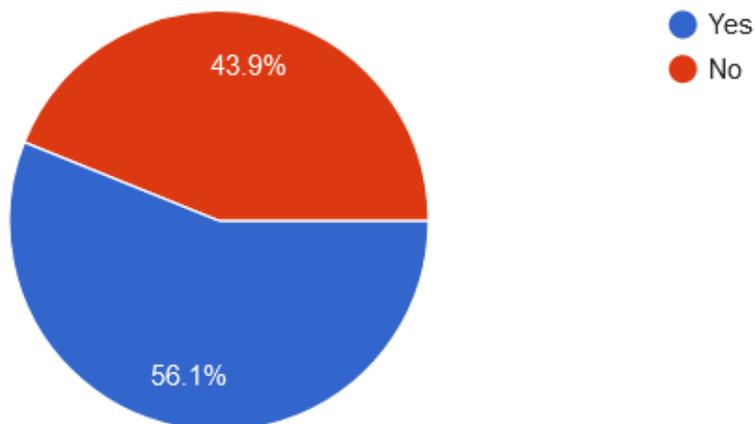
### Are you familiar with the Big Sky Watershed Corps AmeriCorps program?

42 responses



## Has your organization hosted an AmeriCorps member before?

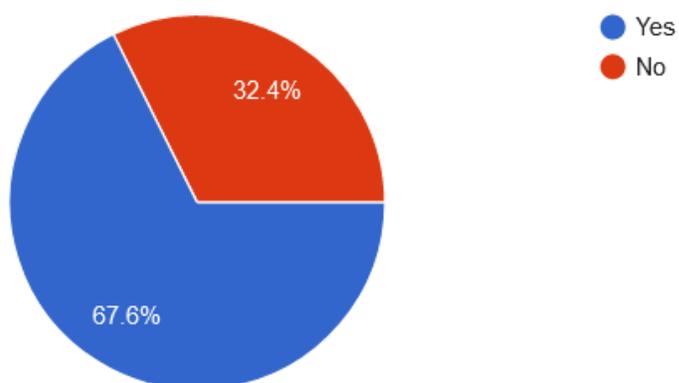
41 responses



Organizations that responded, "No" to hosting an AmeriCorps member had a variety of reasons for not having hosted one in the past. 44.4% stated that they had no funds to support a member and 16.7% said that they did not currently have the capacity to host one. The rest of the responses were broken into small proportions such as "housing and funds are a major concern." Organizations from rural to Montana urban cited housing for an AmeriCorps member as a major concern.

## Would you be interested in hosting an AmeriCorps member to help with soil conservation practices?

34 responses



## Survey Question: What are some examples of potential projects that could use support?



1. Paraphrased: Has been working on a countywide environmental assessment. Would like to have someone help out with the environmental assessment, specifically the soils portion, instead of using web soil survey.
2. "We are pursuing an opportunity... to create a... program geared towards small acreage farmers and connecting local communities to local food sources. This program would involve training for beginning farmers... farmer-to-farmer mentorship program, educational farm walks, and educational school programs – all of which would focus on soil health principles and regenerative farming practices. We also hope to create a tool & equipment library for people to borrow items like soil probes and soil test kits. "
3. "Soil testing"
4. "All of them."
5. "Farm to school program, community gardens, education in the school, pollinator habitats, soil health data collection."
6. "Help with the CRP program."
7. "Our grazing BMP projects on private lands could certainly be more comprehensive and include recommendations for improving upland soil health."
8. "The RVCD could improve on the amount of educational and outreach events for students and community members alike. "
9. "Adding soil moisture monitoring to the Water and Drought Awareness Program"

## Survey Question: Do you think a Soil Corps position would be duplicative of a BSWs position?

Many survey respondents did not believe that a Soil Corps position would be duplicative of a Big Sky Watershed position. Some thought that the programs could be complimentary or offer more resources to potential sites in eastern Montana.

"Depending on the approach, they could be completely separate."

"No, I think its a little different. When people think of BSWs, they thin of water and stream projects rather than soil health. Related but go hand-in-hand."

Paraphrased:  
"...depends on the purview of BSWs...BSWS could be misleading in eastern MT...when you're attracting folks, BSWs doesn't make you think of soil health projects in eastern MT..."

Paraphrased: "BSWS helps curate a skill set, having a soil corps could help differentiate...could help launch folks into a more science based position...a title of soil corps could help better self-select applicants."

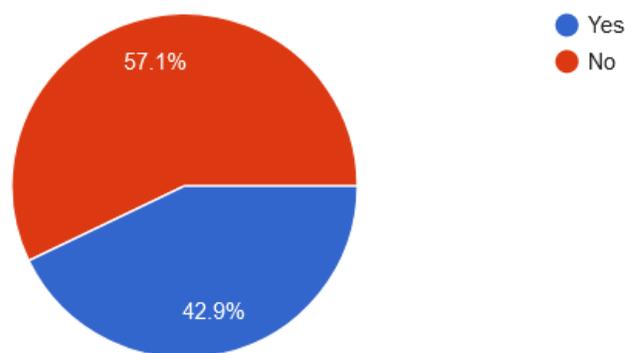
"It wouldn't be duplicative, it might interest other types of folks."

1. "No."
2. "I don't know."
3. "There could potentially be some overlap; a seasons notice to do some planning."
4. "In some ways it could be but it could also increase capacity to expand multiple programs at once. "
5. "Possibly. We usually have a BSWC position every year. I think that would continue to be our priority, because it is more relevant to the majority of work that we do. However, if we pursue the partner program with Farm Hands Nourish the Flathead, there would potentially be a shift in our priorities. "
6. "complimentary not duplicative. finding the funding to have a corps position every year is the trick. Retraining each year is expensive and time consuming."
7. "Maybe, depends on the program"
8. "I don't know. I would think not. "
9. "No, I don't. They could focus on two different things."
10. "No, it wouldn't be here. "

11. "Not really sure. Maybe. It would be different because they would be focusing on soil rather on riparian and watershed. Could be different. "
12. "I would think so. "
13. "Not necessarily, there could be a soil health focus."
14. "In our case yes, but the answer may be different for some of our partners, eg Bitterroot Conservation District"
15. "That's a good question. Even if it was, it could be a good thing? It's awesome the work that BSWs folks do. I could see more opportunities for soil related work. "
16. "Some of the work could definitely overlap. "
17. "Yes and no. The difference to me would seem like Soil Corps would be very invested in one project aspect, compared to BSWC which works across many different program areas in a watershed."

### Would your site have the capacity to host a Soil Corps position?

28 responses



## Soil Corps Discussion Forums - New Section added 3/23/22

### Introduction

Soil Corps Discussion forums were held in four communities in Montana in January and February 2022 to hold an open dialogue with Conservation Districts and other partner organizations. 31 attendees from 15 Conservation Districts, 6 partner organizations, and one for-profit conservation organization attended the forums and provided valuable input on the feasibility of such a program.

Although the communities were varied, the two-hour discussions forums had some common threads: the need for education and outreach in the form of workshops that focused on high intensity and win-win grazing/range management, drought resilience

methods, and sharing a Soil Corps member with another partner organization to ease overall lack of organizational capacity. All forums thought that a longer term position was needed to facilitate community buy-in.

Soil Corps Discussion Forums were held in the following communities:

Ennis, Jan 26th (Zoom meeting can be viewed [here](#) **Conversation starts at 15:47**)

Missoula, Jan 27th (Zoom meeting can be viewed [here](#) **Conversation starts at 10:30**)

Great Falls, Jan 31st (Zoom meeting can be viewed [here](#) **Conversation starts at 3:18**)

Glasgow, Feb 3rd (Zoom meeting can be viewed [here](#) **Conversation starts at 5:30**)

The following questions formed the framework for each two-hour discussion

*Intro:* 1. What does soil health mean to your community?

*Need:* 1. What is your single biggest soil health need in your area?  
2. If you applied for a Soil Corps member, what would they work on?  
3. What length of term would be helpful. 3 mo, 6 mo, 11 mo

*Funding and staffing Capacity:* 1. Do you feel like your organization has the capacity to host an AmeriCorps Soil Corps member?

- If yes: What structures do you have in place today to host a Soil Corps member?
- If no: What would need to be developed within your organization to potentially host a Soil Corps member?

*Partnership Opportunity:* Are there other organizations in your area that you could partner with to host a Soil Corps Member? If so, who?

*Housing:* What could potentially be a creative solution to housing crunches for AmeriCorps members?

## Ennis

*Attendees:* The Area 6 Soil Corps Discussion forum was hosted by Madison Conservation District at the Ennis Public Library. There were representatives from Madison Conservation District, Gallatin Conservation District, Beaverhead Conservation District, Beaverhead Watershed Committee, and MSU Extension, with a total of 8 attendees. There were current Big Sky Watershed Corps members in attendance.

*Intro:* Drought emerged as a soil health concern and the group discussed possible ways to re-engage the “soil sponge.” Participants noted that there was “a hunger for soil health” in their region and because there is a lot of development happening in the area, that the focus on soil health is crucial. A representative from MSU Extension in Madison and

Jefferson County, mentioned they had completed a needs assessment two years ago and soil health was in the top five concerns for residents.

*Soil Health Need and Potential Projects* The following ideas were presented by the group as projects a Soil Corps member could potentially work on:

- Soil Health Needs Assessment: engaging stakeholders, assessing community needs, grant writing, etc.
- Education, demonstration, and (building) camaraderie (around soil health practices)
- Organizing, coordinating, and facilitating meetings and workshops
- Technical knowledge, assisting in interpreting data
- Land owner education on drought resilience

*Funding and Staffing Capacity:* Many attendees either currently had a Big Sky Watershed Corps member or had one in the past and seemed quite familiar with the programming. An attendee was curious about the overlap of Soil Corps with Big Sky Watershed Corps. They questioned whether a Soil Corps position would better engage Eastern MT and wondered if having a sub-set program would make an impact on that part of the state.

A former Director of Energy Corps, a stand alone AmeriCorps program, thought that nestling a Soil Corps program in with Big Sky Watershed Corps made sense since the Montana Conservation Corps is a “well oiled machine,” in terms of managing AmeriCorps programming. Most participants stated that if Soil Corps existed, they would either have a Big Sky Watershed Corps member or a Soil Corps member, but likely not both.

*Partnership Opportunity:* The topic of sharing a potential member amongst multiple sites came up as a way to ease capacity and financial burden among individual districts, similar to what Big Sky Watershed Corps currently does in some instances. Most of the attendees agreed that a longer term would be needed for an AmeriCorps position to develop community relationships, rather than a shorter term position.

*Housing:* The Madison Conservation District has offered tax deductions to people that have allowed an AmeriCorps member to stay on their property for a reduced cost. The value is based upon fair market value.

## Missoula

*Attendees:* The Area 5 Discussion Forum was hosted by the Missoula Conservation District at the Public Library. There were representatives from the Missoula Conservation District, Lake County Conservation District, Pheasants Forever, DNRC, MSU Extension, and American Lands Trust, with a total of nine attendees. There were current and former Big Sky Watershed Corps members in attendance.



*Intro:* Most participants indicated that as service providers, they obviously had their own concept of what soil health was, but they couldn't speak to what soil health actually meant to their community. The conversation continued to evolve from the identified gap between service providers, producers, and the general public with strategies and potential projects that could bridge that gap. Education and outreach was immediately identified as a need.

*Soil Health Need & Potential Projects:*

- Soil Health Needs Assessment
- Education and Outreach
- Workshops on High Intensity Grazing/Pasture Management that are win-win
- Working examples of soil health in the form of demonstration plots
- Educating urbanites or hobby farmers on soil health practices

Lake County Conservation District mentioned that they already work on quite a bit of soil health programming, however, their biggest soil health need was still education and technical assistance. Pheasants Forever based in the Mission Valley, mentioned that a need they see is for education, financial assistance, and soil testing to track change over time; offering incentives for producers to change some of their practices could be a helpful tool.

*Funding & Staffing Capacity:* Funding and staffing capacity was a different conversation at the Missoula Discussion forums compared to other sites. The districts that attended seemed to have a handle on how they could potentially host a member and shared strategies on how to raise funds for a position like this.

*Partnerships:* The discussion of sharing a member amongst districts came up again as a way to decrease organizational capacity burden and funds needed to host a potential Soil Corps member. DNRC offered to help facilitate some of these relationships and that if CD's had a physical space limitation to hosting a member, which many districts also described as a limitation.

*Housing:* This discussion topic was brief at this forum. Attendees focused on building community ties and working within the already established AmeriCorps network in western Montana.

## Great Falls

*Attendees:* Area 3 Discussion Forum was hosted by the Cascade Conservation District at their offices in Great Falls. There were representatives from Montana Conservation Corps, Cascade Conservation District, Sun River Watershed Group, Glacier Conservation District, Fergus Conservation District, and Hill Conservation District. There were current and past Big Sky Watershed Corps members in attendance.



*Intro:* Participants of this discussion all agreed that a paradigm shift was needed in regards to soil health practices that were currently happening in their region. The discussion began as a question to whether a Soil Corps program would be duplicative of Big Sky Watershed Corps programming. Some thought that it was duplicative because the watershed is all encompassing and soil and water are not separate, however it was agreed that the watershed begins on rangeland. Others thought that Soil Corps programming could be “supplemental.”

*Soil Health Need and Potential Projects:*

- Soil Health Needs Assessment
- Education and outreach: demonstration plots, field tour, and community engagement
- Workshops on implementing soil health practices that are win-win

*Funding & Staffing Capacity:* Funding and capacity for a Soil Corps position seemed to be of concern at this discussion forum. Sites that were currently hosting a Big Sky Watershed Corps member, said that they would not have the additional capacity to host a Soil Corps position. Cost share grants and resources are offered for the Big Sky Watershed Corps programming mainly from water quality grants and other watershed organizations, so the question was posed as to where this additional money for these positions might come from for districts.

*Housing:* The Cascade Conservation District shared that they are in the process of building a new building and the current plan is to build AmeriCorps housing on-site so as to lessen the stress of a service member and as a host site.

## Glasgow

*Attendees:* Area 1 Discussion Forum was hosted by Valley Conservation District at the courthouse in Glasgow. There were representatives from Valley Conservation District, McCone Conservation District, Garfield Conservation District, Roosevelt Conservation District, Sheridan Conservation District, Daniels Conservation District, and DNRC. There was a board representative from the Big Sky Watershed Corps program in attendance.

*Intro:* This forum had a very lengthy discussion about what soil health meant to their community especially in regards to the drought this past year that their producers have faced and specifically the degradation of rangeland. Soil health in this region means “better grazing, better crops, and overall range health...” It also means reduced inputs, reduced costs, and increased profitability. There was much discussion on how ranchers in this area have been “conditioned” to fear environmental practices (in regards to soil health practices). “It’s new to ranchers in this area to understand that you can care about the

rancher and the land.” It was noted that ranching has not been quite as progressive with soil health techniques as farming has and so education is very much needed in this area.

*Soil Health Need & Potential Projects:* This group had a lot of soil health ideas on how to engage ranchers on public lands. Their biggest need was education on what good soil health practices are on rangeland, especially since many of the ranches are generational and soil health currently means different things to different producers. Everyone agreed that a longer term AmeriCorps position would be ideal as building relationships in the community would take time.

- Soil Corps could work with public lands such as BLM + FWP to work on grazing workshops.
- Education on rotational grazing and better grazing management on public lands
- Researching technology and conducting outreach on electric fencing workshops on public lands
- Monitoring and baseline data to know what producers need

*Funding & Staffing Capacity:* Most of the Conservation Districts that attended this forum did not feel like they had the capacity to individually host a Soil Corps AmeriCorps position. Most did not have physical space, funding, or full-time staff capacity to host a position. The tone changed after they began brainstorming a position that would function as a shared resource and could potentially help plan much needed grazing workshops for multiple districts to address some of these capacity issues.

*Partnerships:* The conversation naturally evolved into how a shared position might look. Housing, rural nature and tech capacity were discussed. Planning for the opportunity to tele-work, rather than being 100% in the office, seemed to open a lot of minds to the potential of how a position like this could work in their region.

## Key Takeaways from all Forums

- Sharing an AmeriCorps Member among districts would be beneficial to bolster capacity and lower financial burden for individual Conservation Districts
- Attendees thought nestling Soil Corps within Big Sky Watershed Corps could work better rather than it being a stand alone program
- There were some concerns over duplication since Big Sky Watershed Corps members already do some soil health work
- Education and Outreach seemed to be the biggest need surrounding soil health.
- Workshops focused on high intensity grazing to increase soil health on pasture and rangeland came up at all of the forums

- DNRC offered to help facilitate partner organization relationships
- A longer AmeriCorps term seemed more beneficial for community education buy-in

## Next Steps

MACD has worked with our direct partners, Montana Conservation Corps and Montana Watershed Coordination Council to delve into next steps. The following has been proposed as an initial first steps:

1. Fold “Soil Corps” feedback into existing Big Sky Watershed programming. The level of interest from sites will determine if more specific and/or differential training is required. These members might potentially become a subset of their own for marketing and/or to attract AmeriCorps applicants with a different skill set in the future.
2. Outreach to Conservation Districts and other partner organizations that expressed interest in a soil specific Big Sky Watershed AmeriCorps position: find out their funding and project needs as well as specific training needed with position and liaise with Montana Conservation Corps and partners to find an AmeriCorps member that might fit their needs.
3. **Call to action to Conservation Districts & Partner Organizations:** If you’re interested in hosting a soil specific Big Sky Watershed Corps member, please reach out to Shay Farmer at Montana Association of Conservation Districts to discuss this opportunity more.