TECHNICAL ASSISTANCE FOR WESTERN RANGELAND CONSERVATION

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EXECUTIVE SUMMARY

The western United States faces mounting environmental and socio-economic challenges that threaten the sustainability of its rangelands, which span over 761 million acres and support vital agricultural, ecological, and cultural systems. This report, developed by the Western Rangelands Data Initiative (WRDI) in partnership with the Technical Assistance Accelerator for Conservation (TA Accelerator) at Meridian Institute, synthesizes insights from 34 rangeland stakeholders to assess the current state and future needs of technical assistance (TA) systems for conservation across western working landscapes.

KEY FINDINGS

- **TA is essential but undersupplied –** A wide range of public agencies, NGOs, private consultants, and community-based organizations contribute to the support network available to producers However, demand for TA far exceeds the supply of TA providers available. Federal staffing reductions, systemic underinvestment, and a lack of locally-based recruitment have constrained the capacity of agencies like Natural Resources Conservation Service (NRCS) and Bureau of Land Management (BLM), creating long wait times for assistance.
- **Providers benefit from partnerships –** The diversity of TA providers currently operating in the West brings a wealth of expertise, perspectives, and localized knowledge to producers. As the TA landscape continues to evolve, there is an opportunity to enhance coordination and reinforce networks among providers to ensure producers are receiving both sufficient and high-quality support to meet their conservation goals.
- **Barriers to access and adoption limit the potential impact of TA –** Financial constraints, program complexity, cultural disconnects, and workforce shortages hinder widespread conservation adoption. While many producers benefit from existing TA systems, others – particularly beginning, Tribal, and other historically underserved producers – face compounded barriers that limit their participation in conservation programs. Addressing these systemic challenges can help ensure more inclusive and effective conservation outcomes.
- **Producers value practical, personalized support –** The most impactful TA is relationship-based, locally-informed, and tailored to specific operations and landscapes. When one-on-one TA is not available, producers also benefit from group learning opportunities and peer networks that foster shared knowledge, capacity building, and community resilience.
- **"Soft skills" matter –** In addition to technical expertise, TA providers are most effective when they bring strong interpersonal skills, cultural understanding, and commitment to long-term engagement. These qualities help build trust and ensure that conservation efforts align with producers' goals.

The future of western rangelands depends on a robust, adaptive, and community-centered TA system. By investing in people, partnerships, and place-based strategies, stakeholders can ensure that conservation efforts are both effective and equitable to support resilient landscapes and livelihoods for generations to come.

INTRODUCTION

Across the western[1] United States (U.S.), the importance of conservation is clearly demonstrated in the region's reliance on natural resources and intact landscapes for agriculture, recreation, and wildlife habitat. Unfortunately, the West's natural resources are increasingly threatened by challenges such as prolonged droughts, diminishing water supplies, expansive and increasingly severe wildfires, and land use conversion due to forces such as urban sprawl, energy projects, and cropland expansion. Conservation efforts aimed at protecting critical habitat, supporting sustainable agricultural practices, and managing resources effectively are essential to ensuring the long-term viability of the West's rural landscapes and livelihoods.

For conservation efforts to succeed in a way that benefits both the natural environment and its intertwined human communities, private landowners and land managers must be engaged as critical partners. With deep connections to the land and livelihoods dependent on sustainable land management, livestock producers (hereafter simply "producers") hold the capacity to enact positive environmental change while also directly benefiting from the outcomes of these actions through the adoption and expansion of conservation practices that often also carry long-term financial and environmental benefits. Moreover, the West's landscape dynamics are unique in that federal, state, and private lands are often intermixed. This context necessitates partnerships between private landowners and public land managers to manage interconnected landscapes for a variety of uses, including livestock grazing, wildlife habitat management, resource extraction, and public recreation.

Technical assistance (TA) plays a vital role in helping producers achieve their conservation goals. Stated simply, ***TA for conservation is any form of support given to producers that helps them implement, expand, and maintain the natural resource outcomes on the lands they manage.*** A diverse set of service providers—from public agencies such as the Natural Resources Conservation Service (NRCS), Cooperative Extension, and conservation districts, to private contractors, non-profit organizations (NGOs), and for-profit consultant services—collaborates with producers to assist them in sustainably managing landscapes and overcoming natural resource challenges.

Despite the critical role that TA plays in advancing conservation and balancing public and private land interests, significant obstacles remain – most notably, an insufficient supply of TA providers to meet growing producer demand. In recent years, this demand has only increased, underscoring the urgent need to expand TA capacity, particularly on rangelands, which cover nearly 31% (761 million acres) of the U.S. and are concentrated almost entirely in the West. However, there is currently a high degree of uncertainty surrounding the future of federal conservation programs and the public organizations that provide TA through the U.S. Department of Agriculture (USDA) and the U.S. Department of the Interior (DOI). After a hiring push in 2022, followed by a federal reduction in force in early 2025, some stakeholders view these shifts as undermining the stability and continuity of conservation support. Given the uncertainty, expanding and more actively engaging partnerships with diverse TA providers is increasingly critical to forwarding sustainable livestock production and conservation goals.

[1] We define "the West" to include Montana, Wyoming, Colorado, New Mexico, and all states to the west.

OVERVIEW OF THE REPORT

This report was written in partnership between the Western Rangelands Data Initiative (WRDI) and Technical Assistance Accelerator for Conservation (TA Accelerator), both of which are housed within Meridian Institute. Funded by Walton Family Foundation and Conscience Bay Research and under the guidance of a multistakeholder advisory committee, WRDI brings together producers and producer groups, scientists, NGOs, agricultural business owners, and others in pursuit of a suite of collaborative activities under two workstreams: Innovation in Public Land Grazing and Ranch and Rangeland Resilience. As part of the Ranch and Rangeland Resilience workstream, Meridian commissioned three topical issue briefs to explore the current state of knowledge and expert perspectives on specific topics relevant to the future of rangelands and ranch sustainability in the West, including this report on the specific TA challenges and needs across Western landscapes. For this report, we drew on previously collected data (i.e., interviews and focus group insights) that were part of the TA Accelerator – a project led by Meridian Institute and funded by the National Fish and Wildlife Foundation with support from USDA's Natural Resources Conservation Service (NRCS). The TA Accelerator has worked to identify TA models and strategies to meet TA demand, both in terms of the numbers of producers reached and the subject matter and skills used to train TA professionals. Overall, members of the TA Accelerator conducted 139 interviews with producers, TA providers, and other experts, as well as participated in and led 10 engagements related to TA.

From this broader sample of 139 people, we pulled interviews from individuals who spoke either specifically about western rangelands (typically due to the individual's residency in a western state) or had a more national-level perspective applicable to this paper's focus. This resulted in a sub-sample of 29 individuals, consisting of six livestock producers, 15 TA providers (including state and federal agency employees, extension educators, NGO program coordinators, conservation district staff, etc.), and eight "other experts" (including three regional-level NGO directors, three university professors with joint extension appointments, two state public agency directors, and one retired high-ranking federal official[2]). These interviews followed a semi-structured interview protocol, whereby we asked individuals to reflect on their experiences with either providing or receiving TA for conservation, or their expertise and observations related to the subject.

In addition to interviews, we facilitated a focus group on TA for conservation at the REGENERATE conference in Denver, Colorado, on Wednesday, November 6, 2024. The focus group invited historically underserved producers, new and beginning producers in Quivira Coalition's New Agrarian program, and others to share their experiences with TA in a small group setting, of which five producers attended. During the workshop, participants discussed their experiences with TA, including what has worked well and what has been challenging, as well as ideas for enhancing TA.

Drawing from these interviews and focus group discussions, the following report synthesizes perspectives expressed by 34 individuals with diverse experiences in TA systems across the West. Throughout, we emphasize areas of high agreement and share divergent or contrasting opinions when added nuance is relevant. We focus on the following themes in the report:

[2] These numbers exceed the total sample size due to many individuals falling under multiple categories (e.g., a producer who is also a part-time TA provider).

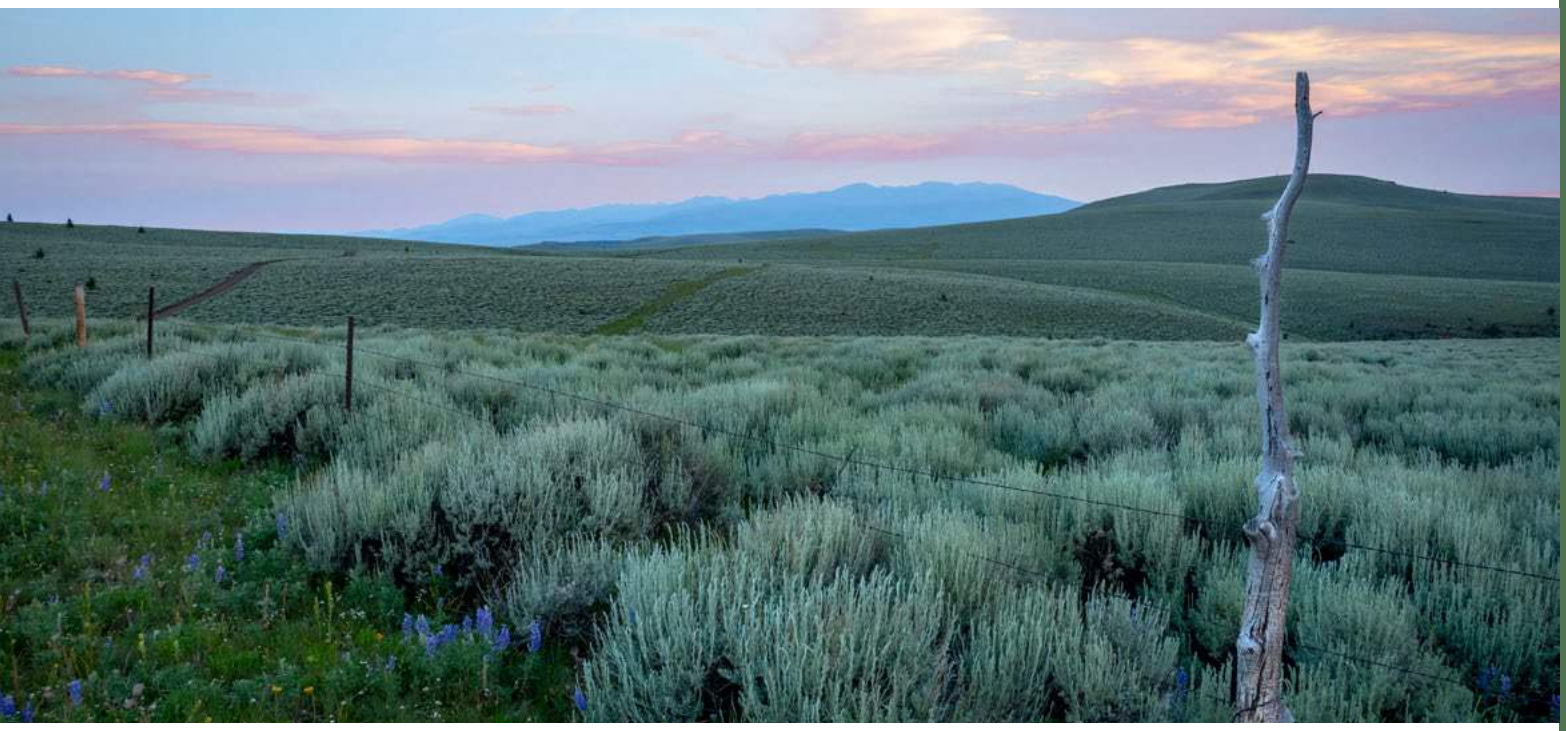
1. **Characterization of the Technical Assistance "System" for Conservation for the West**
2. **Contextual Variables Impacting Access to TA and the Adoption of Conservation Practices**
3. **Technical Assistance Needs and Gaps**
4. **Best Practices for TA Provision and Programming**

We conclude the report by discussing the findings and their implications for improving both the quantity and quality of TA provided to producers, and by offering recommendations to strengthen western regional TA systems to better meet producers' needs.

THE TECHNICAL ASSISTANCE "SYSTEM" FOR CONSERVATION FOR WESTERN RANGELAND

Across the West, producers are increasingly facing challenges with their operations due to climate change-related impacts and compounding historical inequities (e.g., water scarcity due to both frequent and intense droughts and water appropriation issues). Their ability to manage lands around these challenges requires a substantial amount of knowledge, resources, and time – all while managing their operations under increasingly economically untenable circumstances.

Because of how overstretched producers often are, TA providers are essential partners who can help producers make decisions, access financial and material resources, and implement conservation activities on the ground. TA providers include a wide range of conservation and agricultural experts employed by the public sector, NGO, for-profit, and community-based organizations and actors. Table 1 details some (but not all) providers that came up during the research process.



PUBLIC TA PROVIDERS	■ Natural Resources Conservation Service (NRCS) ■ Bureau of Land Management (BLM) ■ U.S. Forest Service (USFS) ■ Conservation districts[3] ■ U.S. Fish and Wildlife Service (USFWS) ■ Cooperative and Tribal Extension ■ Tribal technical service providers ■ State Departments of Agriculture and other state agencies
REGIONAL AND NATIONAL NON-PROFIT ORGANIZATIONS	■ Producer-Oriented Organizations – e.g., Quivira Coalition, Western Landowners Alliance, National Grazing Lands Association, Intermountain West Joint Venture ■ Conservation-Oriented Organizations – e.g., Ducks Unlimited, Pheasants Forever, The Nature Conservancy, World Wildlife Fund ■ Commodity Groups – State Cattle Growers Associations
FOR-PROFIT ENTERPRISES	■ Ranching for Profit (WY) ■ AgSpire (National) ■ SnapLands (CO)
COMMUNITY-BASED ORGANIZATIONS & PEER NETWORKS	■ Ranchers Stewardship Alliance (MT) ■ Winnett ACES (MT) ■ South Dakota Grassland Coalition (SD) ■ Blackfoot Challenge (MT) ■ California Rangeland Coalition (CA)
ASYNCRONOUS RESOURCES	■ Facebook groups ■ Online webinars and YouTube ■ Print resources (e.g., pamphlets, books)

Table 1 . TA Provider Examples

[3] Also called Soil Conservation Districts, Resource Conservation Districts, and Soil and Water Conservation Districts in various locations across the West.

All these actors are working in the West to assist farmers with their conservation goals, often in complementary ways. Unquestionably, public sources of TA currently and historically serve as the largest source of assistance, with NRCS specifically tasked with helping private landowners implement conservation practices. However, they are often assisted by a large network of partners both within and outside of the public sphere. For instance, NRCS has a long history of working directly with conservation districts through a national-level Cooperative Agreement, often relying on conservation district employees to act as conservation planners on behalf of NRCS. Additionally, state agencies provide an important source of funding and support for producers, often with programs tailored to specific localities and with flexible funding structures. Cooperative Extension works similarly in many locations, facilitating knowledge transfer from Land-Grant Universities into communities and providing producers with science-backed tools and resources that can help them improve their management practices.

In the last several decades, the TA system has expanded to include a wide range of NGOs and private companies, often working with public-sector partners to increase producer access to both financial assistance (FA) and TA. These providers may be certified by professional associations such as the Society for Range Management, which provides accreditation for Certified Range Management Consultants, or through government agencies, as is the case with the NRCS Technical Service Provider (TSP) program, allowing them to write grazing management plans to help link producers to Farm Bill Conservation Title- funded programs. Without these or other accreditations, providers can also still offer an important link to networks and services for producers – often acting as the "middleman" between producers and other providers.

Finally, in the West, the fragmentation of public and private land and the importance of public lands grazing for many ranching operations make collaboration with public agencies essential. Agencies such as the BLM, USFS, and USFWS play a critical role in ensuring the health of rangelands, forests, and riparian areas. They are also central to navigating complex management decisions related to stocking rates, endangered species, stream restoration, and multi-use land management, both on federally held allotments and on adjacent private lands.

PARTNERSHIPS AND COLLABORATION

> **I just don't think we can solve these complex natural resource issues just by one person working with one landowner. We don't have enough time and money and resources to do it. And so where we have individuals who get partnerships, who get leveraging funds, leveraging technical assistance, everyone working together, we're doing a five-out-of-five job." (Conservation district employee)**

When asked about the TA providers that are important for western producers, interviewees listed various combinations and examples, highlighting the nuanced and diverse range of expertise available to producers depending on their unique locations and TA needs. Other than signaling that the "most important TA provider" is highly context-specific and not generalizable, this also highlights a central demand for partnerships and collaboration between TA providers to best serve producers and the complex environments they help to steward. As one state agency director mentioned, **"I think we are all very convinced that with the amount of conservation needs that exist, it's bigger than [one organization] can do alone."** Nearly all interviewees shared this sentiment, often mentioning how the West's expansive landscapes and diverse resources necessitate collaboration across

organizational and sectoral lines. This is particularly true for grazing operations that utilize public lands, relying on BLM or USFS permits and leases.

Besides the importance of partnerships for facilitating connectivity between otherwise siloed groups, interviewees also described the importance of partnerships for both enabling broad-scale landscape change, mitigating conflicts between stakeholders, and ensuring the inclusion of a wide range of expertise that can lead to the success of conservation initiatives. As another interviewee, who is a conservation district employee, mentioned, **"I still think that the real nuts and bolts of, especially conservation agriculture, are gonna be if you wanna do 400 acres, you're gonna be working with 10 or 15 people instead of one."** They went on to explain that collaboration often enables larger impact and more assured success – a model that they (and others) believe small farmer and rancher groups are helping to grow in prominence across the West, juxtaposing the traditional one-on-one TA approach. Moreover, collaborations of providers often allow for the leveraging or combining of multiple sources of funding and producer support that can both alleviate the financial burden for producers and the time burden for TA providers, who often have many clients they're trying to assist at once.

However, not all interviewees shared the same experiences with effective collaboration. On the contrary, many expressed that there persists a significant disconnect between sectors and organizations. In some cases, this has to do with simple divisions between assumed areas of responsibility (e.g., public vs private lands), but in other cases, this is due to a lack of established trust and relationships. For instance, one state agency TA provider stressed how collaboration is only beneficial when all parties have similar interests, citing the historic disconnect or lack of interest many conservation groups have had to prioritize and work with ranchers. While this can change – another state agency TA provider, for example, pointed out how one large conservation group that was once cold towards ranchers has recently gained a lot of trust and respect among the ranching community – it does present a major hurdle. Moreover, several interviewees mentioned that partnerships are often dependent on an ideal confluence of people and personalities, making it difficult to replicate successful collaborations across the West more generally. Nonetheless, most interviewees expressed that successful collaborations constitute an important and growing form of TA across the West, allowing for highly skilled groups of TA providers that can help fill capacity gaps.

CASE STUDY

WORLD WILDLIFE FUND – SUSTAINABLE RANCHING INITIATIVE

The World Wildlife Fund's Sustainable Ranching Initiative (SRI) is an example of the critical role partnership plays in delivering effective, landscape-scale TA. Focused specifically on the Northern Great Plains, SRI offers ranchers tailored support to enhance grazing management, ecological monitoring, and ranch infrastructure through its Ranch Systems and Viability Planning (RSVP) network. This network is a collaborative platform which brings together ranchers, landowner-led conservation groups, scientists, and agency partners to improve rangeland health while supporting ranching livelihoods.

Through RSVP, participating ranches receive tailored support – often through local landowner-led conservation groups and grazing consults which established ties to communities – that combines TA with a diverse range of financial assistance options to motivate and retain producer buy-in. Producers within the program are also offered educational opportunities related to peer-to-peer and group learning, ensuring long-term capacity building, relationship creation, and regional connectivity. Moreover, RSVP's eligibility requirements are relatively minimal (see "Eligibility"), ensuring that the barriers to participation are reduced for producers and especially beginning and women ranchers, who make up a significant portion of enrollees. This is strategic, with a program representative commenting that **"you can have some programs that limit the types of farmers who can be involved. But we accept anyone as long as they meet our basic requirements. We want the people who are skeptical."**

By weaving together local partnerships, sustained support networks, and flexible program requirements, SRI offers an example of how cross-sector and community-embedded partnerships can scale conservation outcomes and improve long-term viability for ranchers.

CONTEXTUAL VARIABLES IMPACTING ACCESS TO TECHNICAL ASSISTANCE AND THE ADOPTION OF CONSERVATION PRACTICES

There are many barriers that may inhibit producer access to or implementation of conservation practices, including a lack of financial incentives, pervasive structural issues, social and cultural influences, and TA workforce capacity limitations.

FINANCIAL INCENTIVES

> **"If all we do is provide technical assistance, I'm not sure we've met our goals and objectives and are going to succeed with conservation. We've got to turn that technical assistance into financial assistance or landowner agreements or helping those landowners actually figure out how to get these projects done on the ground. So technical assistance is one [part], it's turning that into something meaningful on the ground. That's even more important." (State agency director)**

Across all interviews, individuals spoke about the need to ensure that conservation goals align with the business goals and financial realities of producers. Funding and other financial incentives play a substantial role in management decisions. As one producer described in response to why he chooses to implement conservation practices on the rangeland he manages,

> **"We've definitely taken advantage of a lot of funding and I would say that funding programs like EQIP and others have been really crucial for us. So much of the work that's happened on the place we could not have afforded to do on our own, whether it's this water development that's going in, [we] probably couldn't quite justify what we're doing economically just off of cattle production increases alone."**

While conservation practices can ultimately pay off economically – such as by increasing productivity and herd health, selling into higher-priced markets, as well accessing emerging carbon markets and other payments for ecosystem services – producers often rely on grant and cost-share dollars to cover the upfront costs. This money is necessary given the high cost of new infrastructure and inputs (e.g., pivot irrigation systems and native grass seed mixes), which create high barriers to entry, especially for low-resource and beginning producers. At the same time, cost-share alone might not be adequate, with producers participating in Meridian's REGENERATE workshop explaining that upfront costs are often prohibitive, especially if they are not repaid in a timely manner. With that in mind, many TA providers stressed the importance of helping producers prioritize conservation practices that make the most financial sense even without additional funding. As phrased by a TA provider who works for an NGO,

> **"You know, a lot of these guys don't have thousands of dollars to spend on their operation on something. So we're trying to deal with best management practices that are better for the long run that are also good for their pocketbook. So, we're not just giving them the silver bullet. We're kind of giving them ideas that will help them over time that's not gonna overburden them."**

Especially given the thin margins associated with agricultural production broadly, being able to tie TA to FA is essential. TA providers must have knowledge of cost-benefits, return on investment, and funding opportunities to be the most successful. Moreover, in cases where producers can't cover the upfront costs associated with conservation, programs that provide upfront rather than reimbursement-based funding can make the difference between participation and opting out entirely.

STRUCTURAL CHALLENGES

Many interviewees expressed barriers to conservation adoption that stem from organizational structure, namely a lack of agreement within and between TA-providing entities over how to best create change on the ground. As described by some TA providers interviewed, there is sometimes variation between partners over prioritized goals (e.g., producer livelihoods versus broader landscape impact), leading to divergent approaches to TA outreach and provision. For instance, several interviewees mentioned that large-acreage landowners receive preferential treatment for federal cost-share programs in some states, likely due to a mix of pre-established networks and ties, higher perceived acreage-to-effort impact, as well as a push within federal agencies to quickly and efficiently allocate a large influx of conservation dollars from the Inflation Reduction Act (IRA). Interviewees also described difficulties with what many perceive as overly burdensome program requirements (often tied to National Environmental Protection Act (NEPA) requirements if the practices are being implemented on federal lands), confusing paperwork, and misaligned wait-times and timelines to receive project approval. All of this impacts the willingness and ability of producers to take on conservation activities and ultimately relates to organizational management priorities and safeguards that may not line up with the realities and abilities of producers.

Additionally, some agencies and organizations may struggle to serve all producers in an equitable way. As one TA provider who works primarily with Tribes mentioned, confusion exists among state NRCS offices over how to work with Tribes given divergent land tenure structures (e.g., individually owned cattle that are collectively grazed on common land). Moreover, because Tribes are recognized as sovereign nations, there may be extra steps and hurdles to working with federal agencies such as NRCS and BLM, whose organizational structures and program requirements can be prohibitively complex. As one indigenous producer elaborated:

> **"I can't [walk into an NRCS field office and ask for assistance] as a tribal member, because I have to find who the liaison is for my tribe and NRCS, and hopefully communicate my concerns enough to that person that they can go and talk to the district conservationist or the NRCS team leader. And then, hopefully, it gets back to us in that circuitous route that we get the services delivered that we're asking for."**

Considering the large proportion of Tribal lands concentrated in the West, there exists a need to better coordinate Tribal TA with TA provided by the U.S. federal government. In 2024, a Tribal Relations Strategy was developed by Tribal consultants at NRCS[4]. This document provides recommendations for ways in which coordination can be improved, including establishing a position dedicated to Tribal conservation, implementing cultural competency training among federal agency staff, and investing directly in Tribal economic and community development.

WORKFORCE CAPACITY LIMITATIONS

Through interviews, stakeholders stressed a clear demand for a larger TA workforce to meet the increasing demand for conservation assistance. With too few TA providers to meet demand, interviewees cited several examples of long waitlists to receive conservation assistance. One producer described waiting for years and others shared that even receiving a call or email response can take upwards of several months. The delays

[4] https://www.nrcs.usda.gov/our-agency/nrcs-tribal-relations-strategy

create massive frustration among producers and oftentimes cause them to view federal agencies such as NRCS unfavorably. Producers may assume an intentional lack of community and producer involvement, even when NRCS may be doing the best they can with the staff they have available. As explained by one TA provider who works with NRCS through a community-based organization:

> **"NRCS…they are spread thin. And we're dealing with one watershed, and that office might be dealing with areas that are five times bigger or several watersheds. So, there's just not enough people to be around on a daily basis to be involved in a lot of the community stuff. So, NRCS will pop out and, you know, do a quick look or see if you qualify for program, but they're not able to be at those regular meetings that we hold and regularly just running into people talking. So, they're not able to be around as much nor with the turnover nor have a lot of trust that's built up."**

This same interviewee went on to explain why partnerships between NRCS and other organizations that are able to spend more time within communities are so important. While not a substitute for filling (and retaining) individuals within NRCS and other agency positions, which are essential to approving producers for receiving cost-share funds such as from the Environmental Quality Incentives Program (EQIP), Regional Conservation Partnership Program (RCPP), and Conservation Stewardship Program (CSP), community-based organizations complement and help remedy government capacity gaps felt by communities across the West and the U.S. more broadly.

Additionally, many interviewees explained how it is not only the quantity of TA providers available that is a problem, but also the relevant training that TA providers have. Across states, people mentioned a lack of providers who have the knowledge to assist with grazing planning specifically, also contributing to long wait times for producers to work with TA providers and contributing to barriers to accessing cost-share assistance.

SOCIAL AND CULTURAL CONSIDERATIONS

> **"Our western way of life is its own culture. And it doesn't matter what color you are, or your country of origin, or when you arrived here, whether you're… Indigenous people that's been here for time immemorial, whether someone ascended from European settlers, whether you're someone coming across the border right now…we're all western people, and our way of life out here in rural America, isn't [just] a job for us. It's our culture." (NGO TA Provider)**

The West as a distinct cultural geography was brought up across interviews as key to understanding nuances in conservation practice application and producer interactions with the TA system. On one end, while many discussed western culture as a unifying factor among communities, they also discussed how there remains a disconnect between many TA providers and the communities they serve. Namely, people brought up how many TA providers may come from other areas of the country and lack ties or place-based knowledge. Furthermore, some federal agencies may have offices far away from the communities they serve, meaning that TA providers (or producers) must travel long distances to access TA. Interviewees brought up how both the cultural and physical distance between some TA providers and producers can deter producers from reaching out and can impact the trust that can be built among these groups.

Considering the high amount of turnover within TA positions and the relatively short

tenure of many on- the-ground TA providers, cultural understanding is key to working with western producers and in western landscapes. Not only does this make a TA provider better at their job (i.e., by understanding local issues, politics, and the unique environmental challenges within a given area), but it also often leads to greater engagement among producers and, in turn, improved conservation outcomes. This is especially important considering that many producers may not be aware of the ways conservation practices can benefit the sustainability of their operation and land and herd health. This underscores the importance of TA providers taking the time to understand a producer's goals and motivations to be able to match specific knowledge, practices, and programs with those goals. As phrased by one producer and extension agent, **"Motivation by fear doesn't work. Motivation by shame doesn't work. And so you know, how are we building cultures of conservation in our communities?"** Key to creating cultures of conservation is relating to the communities TA providers serve, of which living in those communities can be the most impactful.

CASE STUDY

UTAH GRAZING IMPROVEMENT PROGRAM

"LIVING IN COMMUNITY…WHERE I AM AVAILABLE, THAT MAKES GOOD CUSTOMER SERVICE."

The Utah Grazing Improvement Program (UGIP), housed within the Utah Department of Agriculture and Food, exemplifies a well-functioning, state-supported model of TA for western working lands. Established in 2006 in direct response to producer needs – particularly the need for support navigating grazing issues on public lands – UGIP delivers locally grounded, producer-facing support that advances both ecological and economic goals on Utah's rangelands. The program emphasizes voluntary, incentive-based collaboration with livestock producers to implement conservation projects including water development, fencing, reseeding, and invasive species control.

A cornerstone of UGIP's success is its regional coordinator model, which embeds TA providers in the landscapes and communities they serve, fostering trust, continuity, and locally informed planning. The ability to live and work in the rural communities they serve allows coordinators to build lasting relationships, spend extensive time in the field, and offer consistent, personalized support. A key strength of UGIP is a focus on people, not just projects. The program's success relies on hiring the right individuals with both technical expertise and strong interpersonal skills. As one coordinator noted, **"You need to find the right person, not just the right job description."** This connectivity to producers is further exemplified by the fact that the program relies on high degrees of engagement, with the same coordinator stressing the importance of spending time with his clients, **"We go and assist them in person. We have personal relationships with them … We don't make people drive to our office, we go to them."**

UGIP is also deeply embedded within both public and private land contexts. Coordinators collaborate regularly with public land agencies and have the expertise to translate between the ranching world and the regulatory language of government offices. They also play a critical convening role by connecting producers with emerging science and technology like remote sensing, virtual fencing, and water system innovations, while ensuring that these tools are accessible and time-efficient for producers.

In a context where staff turnover and a lack of trusted connections may diminish the impact TA providers are able to have in the West, UGIP offers a successful alternative. Its producer-informed funding, locally embedded staff, relationships with other agencies and organizations, and emphasis on trust and continuity make it a standout model for responsive, effective, and relationship-driven TA.

TECHNICAL ASSISTANCE NEEDS AND GAPS

Originally, we asked interviewees to list and elaborate on popular conservation practices that they saw across the West. However, the TA providers, producers, and other experts we interviewed emphasized that effective support for conservation must go beyond individual practices to address systemic barriers and evolving landscape pressures. Interview responses revealed not only a breadth of technical challenges but also a shared need for more integrated, adaptive forms of assistance. This section outlines frequently mentioned areas where technical support is either lacking or could be significantly improved, offering a window into the practical and strategic demands shaping land management across western rangelands.

NEEDS FOR IMPROVED GRAZING SYSTEM MANAGEMENT

Individuals were asked what they thought were some of the most pressing or common needs related to TA for conservation for producers. The most frequently cited technical assistance needs, in order of how frequently they were mentioned, include:

- **Water Management:** Including water conservation, implementing and improving irrigation systems, restoring meadow function, and building livestock water facilities.
- **Grazing Management:** The development of grazing plans (e.g., prescribed grazing) to access federal cost-share programs such as EQIP.
- **Invasive Species Control:** Addressing non-native species, particularly annual invasive grasses like cheatgrass, as well as tree encroachment into sagebrush habitat, and planting native grasses.
- **Soil Health:** Practices to improve soil health, such as cover cropping and rotational grazing (which may in turn enhance soil carbon and a producer's ability to sell carbon credits).
- **Fencing:** Both traditional and virtual fencing to manage livestock grazing and reduce costs, including wildlife-friendly fencing.
- **Habitat Stewardship:** Practices that safeguard natural resources explicitly for non-human habitat, including creating pollinator-friendly landscapes and implementing stream restoration projects to improve riparian and aquatic habitat.
- **Wildfire Management:** Coordinated strategies to enhance forest resilience and wildfire crisis management adjacent to rangelands.
- **Technology Access:** Access to technology and data for decision-making support and rangeland monitoring such as LiDAR and remote sensing.

These needs reflect the specific challenges producers face within western rangelands, particularly as they relate to overarching natural resource concerns such as water scarcity, soil degradation, wildlife conservation, and sustainable grazing management.

While the producers interviewed mentioned using a variety of sources of TA to meet their needs, interviewees (particularly those who are currently TA providers) also discussed a need to enhance capacity particularly around agricultural engineering and grazing management – two specialties which are often necessary to completing a conservation plan as required to access federal cost-share programs. As explained previously, in many cases, the demand for support in these areas outpaces the availability of knowledgeable staff, leading to delays in project implementation or missed opportunities to adopt more sustainable practices.

GENERAL SUPPORT NEEDS

Beyond needs related to specific natural resource concerns and conservation practices, interviewees also frequently brought up needs that relate to TA in a much broader sense. Additional needs that interviewees surfaced include program navigation and comprehension, practice implementation, general advice and goal setting, and general management support. These needs highlight a demand for comprehensive assistance across various stages of program engagement, implementation, and long- term relationship prioritization and support.

PROGRAM ENGAGEMENT

The list of FA and TA programs across the West is expansive – a positive sign related to increased funding availability in the last several years, as well as increased interest among NGOs and private- sector actors to engage with producers on conservation-related issues. While ultimately beneficial, many TA providers, producers, and experts discussed how the number of options has resulted in "information overload." As expressed by an interviewee who works in Extension,

> **"I think the number of organizations that are thinking about and actively trying to provide information, resources, peer-to-peer education, grants to farmers, I mean, has increased exponentially in the time since I was trying to be a farmer. And I think that's a good thing. It's a good thing that there are more resources. On the flip side, I think we hear from producers that they feel very challenged to, like, sort through and find the resources that are appropriate or a good match for them."**

The number of resources available thus requires more time for producers to sort through, especially when there is already a significant time requirement for applying to individual programs. Rather than place this responsibility on the producer, several TA providers mentioned how it should be (and already often is) the role of TA providers to help producers navigate and comprehend the TA landscape and related programs. Many mentioned how NGOs have increasingly stepped into the role of a makeshift concierge service, helping direct producers to appropriate resources and partners. Others mentioned some cases where their local conservation districts are providing this support, while others shared that they have had helpful NRCS advisors or range conservationists from BLM who step in to become connectors, highlighting how successful TA can come from many sources when the right person is in the role. As one producer mentioned, at the end of the day it is essential to have "TA that is able to blend local know-how, bring empathy, and connections to national resources", necessitating that TA providers be stewards of a wide range of knowledge to assist producers in finding the right avenues to pursue.

IMPLEMENTATION

> **"We're blessed with lots of tools in-house here at [conservation district] too where we can physically go out and do the projects for the landowners. And I think that's huge. And for me, I guess I think that's one of the big things that's lacking. Have lots of people talking about things, but kinda making the actual project happen and some of that. And that's where we've been blessed with some of the tools to actually go do some of that actually take it from start to finish and help a landowner out on that front." (Conservation district employee)**

Although technical assistance can be thought of as any support provided to producers to help them adopt and expand conservation practices (including asynchronous or

non-individualized support), several interviewees mentioned there is a clear need for direct TA (i.e., TA that is tailored to a specific operation and that helps producers implement customized practices on the ground). This includes helping producers find and pay for contractors to carry out specific conservation tasks, such as installing fencing, planting cover crops, or constructing water management infrastructure. Moreover, it also entails having TA providers who are deeply familiar with the land they advise on, necessitating on-the- ground surveying and monitoring support. Interviewees emphasized that without this kind of hands-on assistance, many producers – especially those with limited labor, time, or technical knowledge – struggle to move from planning to action. Direct TA can bridge this gap by reducing logistical burdens and ensuring that conservation practices are implemented effectively and in a timely manner.

LONG-TERM RELATIONSHIP PRIORITIZATION AND SUPPORT

Technical assistance is often provided on an as-requested basis, sometimes lacking long-term relationships and resources that can ensure producers are supported and conservation activities are maintained far into the future. Throughout interviews, individuals spoke about the need for developed relationships between producers and TA providers to ensure long-term success, as well as to provide trusted outlets where producers can feel comfortable and confident asking questions. Indeed, many TA providers discussed how, beyond their conservation-related TA duties, they are often also acting as trusted advisors to producers. In this respect, they help producers not only navigate conservation programs but also help them diagnose other issues on their properties, connect them to networks, and work with them to develop goals for their operations beyond what's required for a specific cost-share program. Although difficult given the capacity limitations for much of the TA for conservation workforce, many interviewees brought up examples of trusted relationships and mutual respect they've been able to build over years or decades living and working in a place.

BEST PRACTICES FOR TECHNICAL ASSISTANCE PROVISION AND PROGRAMS

TA AND PROGRAM DELIVERY

In-person, frequent, flexible, and consistent TA is widely recognized by both producers and TA providers as the gold standard for effective support. The value of face-to-face interaction –building trust, tailoring advice to local conditions, and offering hands-on guidance – is difficult to overstate. However, while this model represents the ideal, it is not always feasible in practice, entailing a need to explore alternative "best practices" that work given the unique opportunities and constraints of specific geographies and contexts.

As one retired federal official put it, **"The current system is not prepared for the current demand. We've got a mismatch."** This mismatch reflects a core tension between best practices for TA delivery and what is realistically possible within the current system. Many interviewees pointed to the persistent shortage of TA providers, especially within federal agencies, as a major barrier to meeting producer needs. These challenges are further complicated by jurisdictional differences across regions –both in terms of how TA is structured and how many providers are available. For example, one producer mentioned that there is only one NRCS office for the Navajo Nation, which spans 27,000 square miles and three states. This means that, for many Navajo producers, the closest NRCS office is in another state. As a result, access to in-person TA can vary dramatically

depending on locality. Some areas are well-staffed and able to offer timely, high-quality support, while others face long waitlists and rely on a limited number of overstretched providers.

Because of these constraints, the best practices for TA delivery often require some flexibility and adaptation depending on the context. Still, many TA providers emphasized that maintaining relationships should never be deprioritized. Even small gestures – like a quick phone call or text message to check in or share updates – can go a long way. These acts of communication help foster trust and rapport, and they may ease the hesitation some producers feel when seeking assistance - essentially, meeting producers where they are at. Moreover, many TA providers discussed how group learning and helping to build peer-to-peer networks can be as effective (or more) than one-on-one TA. While group learning can't substitute for one-on-one or specialized TA in all circumstances (i.e., when applying for specific programs tied to an individual and their management practices that require some sort of compliance), this model nonetheless can be a powerful knowledge transfer tool that can help TA providers manage their time more efficiently.

At the same time, certain principles are non-negotiable, particularly the importance of showing up as a true partner in the process. Several TA providers pointed out that the sheer amount of time and coordination required to help producers apply for cost-share programs and navigate contracts demands a high level of engagement and responsiveness. As one agency TA provider explained,

> **"…every time like I'm given an application from start to finish, application to contract, and then fulfilling the contract, I feel like it's work to get to that end product. That is endless questions, endless back and forth, not only with my farmer and answering their questions to the best of my ability or finding out the answers from someone more knowledgeable. It's also, you know, interacting with the people who are giving you those answers to relay them to the farmer. So, it's a lot of middleman work, and I really pride myself on each of those, like, working really hard to provide that excellent service."**

In this way, relationship-based and consistent support, however time-intensive, is not just ideal, but essential to delivering TA that producers can rely on. While it may not always be possible for every TA provider to be available at all times, additional partnerships with local organizations and agencies can help fill these gaps. Furthermore, direct TA supplemented by indirect TA (e.g., workshops, conferences, asynchronous materials such as books and online resources), can bestow producers with more agency, and help them build their own knowledge, capacity, and trusted networks between each other and other TA providers from local to regional scales.

ESSENTIAL SKILLS

Given the various demands that producers have for TA, recruiting and training high-quality providers that can work with producers in a variety of capacities is necessary for the success of any conservation initiative. Individuals were asked during interviews about qualities that make an "ideal" TA provider. Overall, interviewees suggested that the most successful TA providers have a mixture of "soft" (or "core"), professional, and technical skills. Table 2 provides examples of each type of skill mentioned in interviews.

SOFT SKILLS	PROFESSIONAL SKILLS	TECHNICAL SKILLS
Personal qualities that shape how TA providers interact with producers and others	**Applied competencies that support planning, coordination, and collaboration**	**Specialized knowledge and abilities related to conservation practice, policy, and economics**
■ Communication / Interpersonal Skills ■ Follow-up and Reliability ■ Empathy and Understanding ■ Open-Mindedness ■ Humility ■ Motivation and Passion ■ Proactiveness	■ Grant-Writing ■ Science Communication ■ Project Management ■ Problem-Solving and Flexibility ■ Collaboration and Facilitation ■ Organization and Administrative Skills ■ Second-Language Skills	■ Conservation Planning ■ Grazing Management ■ Agricultural Engineering ■ Soil and Water Management ■ Knowledge of Cost-Share ■ Programs and Regulations ■ Business and / or Cost-Benefit Analysis

Table 2 . Skills Essential for Successful TA Provision

It's important to note that, above all other skills, soft skills were most frequently cited as the most essential to the success and impact of a TA provider, and often one that many organizations and agencies are struggling to find qualified people to help fill. As expressed by one conservation district employee, **"I think probably listening should be number one. And I think the common theory is that technical proficiency is number one. I think maybe those things need to be switched around a little bit."** The majority of those we interviewed shared this sentiment, suggesting that while colleges may do a good job at training students in relevant technical skills, curriculum and experiences are lacking that help young professionals build skills that help them with the customer-service-related tasks of their jobs. Additionally, some discussed how soft skills with many younger TA providers may be lacking because they come from natural resource backgrounds – not necessarily backgrounds in production agriculture that would allow them to have a better point of reference for their interactions with producers. While some advocated simply for getting more ranch kids into TA positions, others suggested that the easiest way to overcome these barriers is time and mentorship – essentially allowing for relationships to build between various actors within the TA system to enhance comfort and thus communication.

In addition to social skills, people also discussed how TA providers must generally have proficiency in a wide range of professional skills from grant writing to knowledge of cost-share programs and cost-benefit analysis. These examples exemplify the "jack-of-all trades" expectations that many jobs have for their TA providers. While this may add a lot of additional responsibilities onto TA providers, it ultimately is necessary in an advisor-type position to ensure that producers receive as much (and as accurate) information as possible. That being said, many TA providers stressed that not knowing everything is okay. Again, this underscores how important it is for TA providers to have strong networks and established partnerships so that, if they don't have the skills or knowledge necessary for a project or question, they are able to point producers in the direction of someone who does.

THE FUTURE OF TECHNICAL ASSISTANCE: RECOMMENDATIONS

> **"We're not to a point of diminishing returns. Right? We can make some small changes and have some big returns." (Regional NGO director)**

There is no doubt that the demand for assistance will remain and continue to grow. The TA system for conservation must continue to adapt to better serve producers and facilitate the conservation activity necessary to protect and improve natural resources across the West. Informed by this research as well as trends occurring more broadly in policy, the following recommendations provide ideas for how technical assistance can be improved to best serve western producers and communities. All of these recommendations are synthesized by Meridian, but the ideas come directly from the TA providers, producers, and the other experts we engaged for this project.

CENTER TA DELIVERY IN LOCAL CONTEXTS

Effective TA must be tailored to the unique needs, cultural preferences, and production systems of specific geographies across the West. This includes developing more flexible management plans and practice standards that allow for local adaptation. Moreover, recruiting TA providers from within the communities they serve can improve both cultural competency and trust-building. To attract and retain professionals in rural areas, broader investments in housing, healthcare, and infrastructure are necessary, as well as focused recruitment from within rather than outside of rural communities. These systemic improvements will reduce turnover in many TA positions and help ensure that rural communities can sustain a strong and stable TA workforce over time.

PRIORITIZE RELATIONSHIP-BASED TA

One-on-one TA remains the most impactful model, especially for developing grazing plans and navigating complex cost-share applications. That said, group-based TA, such as workshops or peer-to- peer learning circles, can be a powerful complement. These settings foster peer-to-peer networks, facilitate knowledge exchange, and ease the burden on overstretched TA providers. The key is maintaining a human-centered approach across all formats: building relationships, offering consistency, and ensuring that producers feel genuinely supported.

SUPPORT COMPETITIVE COMPENSATION AND CAREER GROWTH

To retain skilled TA providers, particularly in high-need rural areas, positions must offer competitive wages, clear pathways

for advancement, and opportunities for staff to see the real-world impact of their work. Incorporating structured mentorship – especially for those hired from outside the local context – can accelerate learning and ensure that providers are equipped to navigate the cultural and ecological nuances of their assigned regions. These supports are especially critical for early-career professionals, who often face steep learning curves.

STRENGTHEN TA PROVIDER NETWORKS AND RELATIONSHIPS

TA providers are increasingly asked to serve in diverse capacities to best meet the varied needs of producers. While efforts must be made to enhance the capacity of individual TA providers through adequate training and mentorship opportunities, fostering better linkages and networks between providers across sectoral and organizational lines can help create a robust knowledge base that providers can rely on and direct the producers they work with to. There are already several examples of such networks across the West, including those listed in Table 1.

ESTABLISH "CONSERVATION CONNECTOR"/ "CONCIERGE" POSITIONS

There is a strong desire for all agriculture communities to have access to locally relevant and knowledgeable TA guides, mentors, or facilitators. Producers need a place to go with their questions and ideas where they are met with enthusiasm and a desire to figure it out. Conservation districts, extension offices, NGOs, and producer groups are filling the gap whenever possible, but inconsistently and in ways that are not easily replicable across the West. Establishing dedicated positions whereby people are hired specifically to help producers find appropriate resources can help alleviate the burden placed on TA providers, as well as reduce hesitancy that many producers may feel to reach out for help or guidance.

GREATER FLEXIBILITY AND ALIGNED INCENTIVES

The TA system needs to better accommodate changing conditions, geographic variation, and allow for regenerative practices that are emerging in prominence across the West. They also need to align with what producers are trying to accomplish and what may be realistic given financial constraints. While some programs are built in a way that don't allow for a lot of flexibility (namely those associated with federal conservation programs), state and programs often have more flexibility – these should be leaned on in the next several years. Federal programs also need to be reformed to best suit the needs of producers. This can be done by reducing the administrative burden on federal agency programs to make them more accessible, especially for beginner, low-resource, and historically undeserved producers. Finally, funding must continue to be tied to TA to ensure continued program participation, which producers repaid in a timely manner and alternative options for those who may not be able to pay the upfront costs associated with many conservation practices.