Caring for Colorado Public Lands:
A Statewide Assessment to Inform Partnerships between Public Land Management Agencies and Volunteer Stewardship Organizations

Submitted to the Colorado Outdoor Stewardship Coalition
March 2014
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Acknowledgements: This study was a project of the Colorado Outdoor Stewardship Coalition, conducted with funding provided through a Great Outdoors Colorado (GOCO) Conservation Excellence Grant and with support from the Colorado Department of Natural Resources. Meridian Institute provided subject matter expertise in natural resource and land management issues and supported Colorado Outdoor Stewardship Coalition involvement in the project.
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Background

The state of Colorado is known for its abundance of natural beauty and recreational opportunities, and the state’s residents and visitors make regular use of local, state and national parks and forests. Furthermore, Coloradoans hold strong beliefs about the centrality of public lands to the health of the state’s economy (Weigel & Metz, 2013). There are nearly 29 million acres in Colorado (more than 35% of the geographic areas of the state) designated as public and protected lands.¹ These areas are protected by federal (i.e., the Bureau of Land Management), state (i.e., Colorado Parks and Wildlife) or local agencies (i.e., county or municipal agencies).

Figure 1: Land ownership in Colorado, 2012

Western states, like Colorado, have struggled to support land use amidst a growing population and outdoor tourism industry, as well as an apparent decline in federal and state funding for public

¹ Public lands include national parks, forests, wildlife refuges, monuments, historic sites, and local parks and open spaces.
land management. In the West, a number of strategies have emerged to address changing and growing public land management needs, including:

- Diversification of funding streams (e.g., see Gammage, Jr. & Welch, 2009 regarding funding recommendations for Arizona’s state parks; and Block, 2012 for description of public-private partnership efforts undertaken in California)
- Collaborative partnerships to leverage resources across multiple, public agencies and community groups (e.g., the Southern Nevada Agency Partnership, 2012; the Sonoita Valley Planning Partnership in Simms, 2000)
- Utilization of volunteers to perform public land management activities (Bruyere & Rappe, 2007).

In Colorado, a large, diverse group of volunteer stewardship organizations have been established to promote outdoor stewardship (i.e., a value regarding the collective ownership of and role in caring for outdoor spaces). These organizations recruit, train and deploy volunteers to work on projects that support the upkeep of outdoor spaces and many have ongoing working relationships with public land management agencies. This report, commissioned by the Colorado Outdoor Stewardship Coalition, documents how the infrastructure of volunteer stewardship organizations supports public land management.

Report findings highlight the role that outdoor volunteerism and volunteer stewardship organizations play in maintaining recreational land use, educating the public about natural resources and cultivating leaders who care for public lands. It also identifies opportunities for the expansion of their role in partnership with public land managers. However, while this report illuminates a number of significant opportunities to leverage volunteer stewardship organizations to support public land management, it also raises important questions about how to sustain volunteer stewardship organizations, both financially and through the engagement of a broader, more diverse base of volunteers, as the existing volunteer base ages (Trauntvein, 2011).

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2 This report uses the term “volunteer stewardship organization” to encompass the range of organizations that promote environmental stewardship and recruit volunteer labor to support the upkeep and protection of outdoor spaces. Volunteer stewardship organizations (VSOs) are defined, simply, as groups that give their time to care for the outdoors and natural resources. VSOs include volunteer-based organizations, citizen groups, youth conservation corps, recreational associations, university clubs, among others.
THE CURRENT STUDY

The Colorado Outdoor Stewardship Coalition (COSC), a collaboration of volunteer stewardship organizations (groups that give their time to care for the outdoors and natural resources) and federal, state and local land managers, promotes stewardship of Colorado’s outdoors, elevating the awareness and engagement of the public in caring for the state’s outdoor spaces. Hosted by Volunteers for Outdoor Colorado, the Coalition has been working since 2010 to organize forums for stakeholder organizations and to document the collective impact of outdoor volunteer stewardship. In 2013, the Colorado Outdoor Stewardship Coalition, with support from the Great Outdoors Colorado (GOCO) Conservation Excellence grant program and the Colorado Department of Natural Resources, commissioned OMNI Institute, an independent social science nonprofit, to assess the gaps that volunteer stewardship organizations can help fill within public land management. The study identifies conditions facing both Colorado public land managers and volunteer stewardship organizations in their collective efforts to maintain the state’s outdoor resources and residents’ quality of life.3

Specifically, the study examines areas of public land management needs, the capacities of volunteer stewardship organizations and opportunities to address unmet needs through new collaborative efforts between public land managers and volunteer stewardship organizations. Given the scope of the study, assessment activities focused on collecting data that was representative of statewide issues. While OMNI ensured participation from all regions of the state, regional differences were not a focus of the study. Furthermore, while data collection was designed to capture the diversity of public and nonprofit agencies involved in caring for Colorado’s public lands and outdoor spaces statewide, data did not support generalizations of findings beyond agency type (for public land managers, federal, state and local levels; for volunteer stewardship organizations, statewide organizations, organizations serving more than one region in the state and organizations targeting a single region or sub-region).

The study was designed to engage COSC leadership, members and partners in the assessment process, in order to validate observations and to develop and refine actionable solutions. This broad-based involvement in the assessment process supported study implementation, as well as the development of recommendations. Involvement also helped build greater awareness of issues within the Coalition and supported an increased readiness of stakeholders to take action informed by study results.

METHODS

Meridian Institute, a nonprofit agency that strategically engages groups in public policy decision making, worked with OMNI to facilitate the project involvement of the COSC. In addition, OMNI worked with COSC leadership to establish a subcommittee of coalition members that functioned

3 Please direct any questions about the study to Volunteers for Outdoor Colorado ([www.voc.org](http://www.voc.org)).
as a project advisory group. The Coalition subcommittee took part in collaboratively setting project objectives, developing questionnaires, recruiting public land managers and representatives from volunteer stewardship organizations and reviewing preliminary findings to inform additional data collection and analyses.

Multiple research methods were employed to (a) measure, document and more deeply understand and contextualize the needs, challenges and successes of public land managers and volunteer stewardship organizations across the state and (b) identify considerations and strategies for enhancing partnership efforts of public land managers and volunteer stewardship organizations.

- Two web-enabled surveys were developed and deployed in order to obtain information from a large sample of public land managers and volunteer stewardship organizations in the state. Surveys focused on respective capacities and areas of need, as well as perceptions of one another.

- Interviews and focus groups were conducted with representatives from public land management agencies and volunteer stewardship organizations to validate and supplement survey information. These efforts allowed for the collection of more in-depth, nuanced information and perspectives from key stakeholders.

- A review of literature, including academic and applied sources, was conducted to understand issues impacting the field, such as public views and volunteerism.

To commence the project, the OMNI research team reviewed relevant research literature and identified existing instruments to inform survey development. In collaboration with the COSC evaluation advisory committee, OMNI identified priority areas for measuring gaps and capacity including key land management activities, priorities, as well as human and material resources to support their work. Survey design reflected differences between the operations and function of public land management agencies and volunteer stewardship organizations. Further, with the guidance of the advisory committee, OMNI ensured that surveys were strategic in the questions asked of each group given the significant demands upon their time. For example, the public land manager survey was focused primarily on public land management agencies, while the volunteer stewardship organization survey provided most of the study’s information on volunteerism.

Recruitment of participants for the surveys, interviews and focus groups was conducted in close collaboration with the advisory committee and additional assistance from individual Coalition members, as needed. Volunteers for Outdoor Colorado project managers, members of the COSC advisory committee and Meridian Institute developed a comprehensive list of public land managers and volunteer stewardship organizations in the state, focusing on the recruitment of agencies that would maximize diversity of the sample across agency levels and geographic regions of the state, while also maximizing samples sizes and coverage across all regions of the state. The study utilized the modified categorization of Colorado’s tourism regions created by Colorado Parks and Wildlife that collapses the Denver Metro into the Front Range region to guide sample recruitment.
The OMNI research team sent personalized emails to all identified individuals and conducted follow-up phone calls to request participation in the online survey. In addition, COSC members personally followed up with known contacts and forwarded information about the survey to relevant online forums to encourage broad-based survey participation.

**PARTICIPANT DESCRIPTION**

*Public Land Managers (PLMs)*

One-hundred and seven (107) public land managers (PLMs) were surveyed. PLM participants were recruited from federal (n=27), state (n=18), and local (n=62) agencies responsible for public land management. In addition, participants were recruited from both agency headquarters and field offices to maximize regional representation. Just over half of participants were recruited from the Front Range (n=56; 52.3% of the sample), with an additional nine (8.4%) working in a statewide capacity.

Also, in-depth interviews were conducted with representatives from 14 agencies selected to maximize diversity across agency type, job position and geographic region. Seven of the interviewees represented federal agencies; four represented state agencies; and four were from local (city or county) agencies. Additional details regarding interview participants are displayed in the subsequent table. Consistent with standard research and evaluation reporting practices to ensure confidentiality, specific information about participating agencies was not included in the table.

Figure 3 below illustrates the geographic distribution of both survey and interview participants.
Figure 3. Public land manager (PLM) participants by region

Note: Nine (8.4%) respondents were classified as “statewide.” Given that these organizations cover the entire state, they are not visually represented in the map.

Figure 4. Public land manager interviews by agency level, region, and position

<table>
<thead>
<tr>
<th>Agency Level</th>
<th>Region</th>
<th>Position(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>Front Range</td>
<td>District Ranger</td>
</tr>
<tr>
<td>Federal</td>
<td>Front Range</td>
<td>District Ranger</td>
</tr>
<tr>
<td>Federal</td>
<td>South Central</td>
<td>Recreation &amp; Land Staff</td>
</tr>
<tr>
<td>Federal</td>
<td>South Central</td>
<td>Field Manager</td>
</tr>
<tr>
<td>Federal</td>
<td>Southwest</td>
<td>Director &amp; Volunteer Coordinator</td>
</tr>
<tr>
<td>Federal</td>
<td>Statewide</td>
<td>Travel Management Coordinator</td>
</tr>
<tr>
<td>State</td>
<td>Front Range</td>
<td>Park Manager</td>
</tr>
<tr>
<td>State</td>
<td>Northwest</td>
<td>Park Ranger</td>
</tr>
<tr>
<td>State</td>
<td>South Central</td>
<td>Park Manager</td>
</tr>
<tr>
<td>State</td>
<td>South Central</td>
<td>Park Manager</td>
</tr>
<tr>
<td>Local</td>
<td>Front Range</td>
<td>Director</td>
</tr>
<tr>
<td>Local</td>
<td>Front Range</td>
<td>Community Relations Specialist</td>
</tr>
<tr>
<td>Local</td>
<td>Front Range</td>
<td>Director</td>
</tr>
<tr>
<td>Local</td>
<td>Southwest</td>
<td>Director</td>
</tr>
</tbody>
</table>
Volunteer Stewardship Organizations (VSOs)

A total of 90 respondents completed the VSO survey, representing volunteer stewardship organizations of varying sizes and locations across the state. The majority (61.1%) were recruited from nonprofit organizations or community coalitions, 21.1% represented recreation or special interest groups and 16.7% were affiliated with the government. Almost half (47.8%) represented organizations located along the Front Range. Participation also was recruited from the South Central (17.8%), Southwest (16.7%) and Northwest (15.6%) regions.

To supplement and explore survey findings, three focus groups with VSO representatives were conducted in Denver, Eagle and Montrose counties. (Also, two interviews were conducted with VSO representatives that were not able to participate in a focus group.) Focus groups provided VSO participants a forum to discuss experiences working on public lands in respective regions. Altogether, there were 20 participants from local universities, recreational associations, coalitions, youth corps and other volunteer stewardship organizations that took part in focus groups.

Figure 5 below illustrates the geographic distribution of VSO survey and focus group participants (including the two interview participants). Additional details regarding focus group participants are provided in the subsequent tables.

Figure 5. Participants from volunteer stewardship organizations (VSOs) by region
### ANALYSES

Once the data were compiled and synthesized, initial findings were presented to the COSC to ensure appropriate interpretation and identify implications. Based on feedback, additional analyses were conducted. In addition, preliminary recommendations were developed based on input from the larger Coalition and the advisory committee. Final results and preliminary recommendations were shared at a large stakeholder forum for careful review, discussion and refinement. The group surfaced additional implications and recommendations, which OMNI incorporated into the report prior to its finalization and dissemination.

### Quantitative Data

Survey data were collected online using Qualtrics software and imported into Statistical Package for Social Sciences (SPSS) for analysis. Most analyses were descriptive, using frequencies (numbers/percentage) or mean scores (averages). Analyses also were conducted to examine differences by PLM agency level (i.e., federal, state and local) and VSO reach (i.e., local, regional or statewide). Otherwise, where the data did not differ meaningfully or systematically by dimensions of interest, results were reported in the aggregate (e.g., statewide). Although regional location was a key dimension of interest for both PLMs and VSOs, sample sizes for some regions and the overall geographic distribution of respondents did not allow for valid conclusions to be drawn regarding region-specific findings.

### Qualitative Data

Focus groups and interviews were audio-recorded, manually transcribed, and subsequently reviewed for accuracy. Once these steps were completed, a team developed preliminary research codes, or categories used to organize qualitative data, using both deductive and inductive approaches in order to enhance validity. Codes were developed based on questions used to
generate focus group and interview data, feedback from the advisory committee and an initial review of the transcripts. In addition, the coding structure was refined during the analytic process in order to capture emerging themes.

The research team used NVivo qualitative analysis software to analyze qualitative data from interviews, focus groups and responses gathered by open-ended online survey questions. These data were aggregated and analyzed through coding of individual data sources. Further, the software was utilized to examine inter-rater reliability, and discrepancies were addressed through group discussion, revised coding structures and re-coding of data. Focus group and interview data were thematically summarized and, then, quotes illustrative of thematic findings were selected for display in the Findings sections below.

Stakeholder Meeting

Statewide assessment activities culminated in an outdoor stewardship stakeholder meeting at the U.S. Forest Service's Rocky Mountain Region Office in Golden, Colorado, with video teleconferencing in:

- Grand Mesa, Uncompahgre and Gunnison National Forest Office in Delta, Colorado
- National Forest Service, Salida Ranger District in Salida, Colorado
- Pike and San Isabel National Forest/ Cimarron and Comanche National Grasslands Office in Pueblo, Colorado.

The meeting commenced with opening remarks from Jason Robertson, the Deputy Director of Recreation, Lands and Minerals of the U.S. Forest Service; and, coalition member agencies, assessment study participants and representatives from GOCO, the Colorado Department of Natural Resources, and other funders active in protecting Colorado's outdoors took part in the meeting. Altogether, 46 stakeholders participated in the half-day meeting to review assessment results, refine the report's recommendations and discuss next steps for the Coalition and its member agencies. Working with the meeting facilitator, Meridian Institute, OMNI Institute documented meeting outcomes and incorporated these into the final report for the Coalition.
Findings

THE NEW REALITY OF PUBLIC LAND MANAGEMENT

With the mission of keeping public lands safe and accessible, public land managers (PLMs) oversee lands with widely varying types of terrain, elevation and public use. Examples of areas that fall under public land management include:

- Fire and forest mitigation; hazardous material clean-up; and irrigation ditch and reservoir maintenance
- Assessment of the health of vegetation areas and wildlife
- Oversight and maintenance of historical sites, campsites and public facilities
- Supervision of human-powered and motorized recreational use of lands including trails, mountain climbing, biking, fishing and hunting
- Natural resource management, such as authorizing and regulating mining, oil and gas activity as well as grazing and timber harvesting on public lands
- Public education including environmental education, interpretive services and visitor services.

PLMs also are responsible for monitoring the environmental impacts of land management projects, as well as keeping abreast of advancements in land management best practices and new trends in tourism. For example:

- There has been increased interest in recreational sports, such as mountain biking or ATV use; this, in turn, has increased the upkeep required of associated recreational trails and facilities.
- Growing public attention to natural disasters, including flooding and wildfire, has heightened the focus on the need for prevention and mitigation services. At the same time, there have been technical advancements and significant changes in prevention and mitigation approaches (e.g., competing paradigms of wildfire mitigation) that alter how these services are provided.
- Invasive terrestrial (e.g., pine beetles that have killed trees and increased fire risk) and aquatic (e.g., mussels brought from other waters into the state via boating equipment) species impact local ecosystems, requiring monitoring, mitigation and restoration efforts.
The responsibilities of public land managers are far-reaching in terms of the geographic area managed, the types of natural resources managed, and the professional and disciplinary skills required. Surveys and interviews with public land managers documented in detail the many challenges that they face in meeting the diverse, complex and ever-changing requirements of public lands management.

**Common Gaps in Public Land Management**

Colorado public lands are funded through a variety of sources including revenue-generated funds, donations and federal funds and grants (Colorado State Parks, 2008). However, despite the apparent diversified funding base for public land management, public land managers reported an overall trend of declining funding over the last five years. This trend appears to have impacted federal and state public land management agencies disproportionately.

**Figure 7. Past 5-year funding trend reported by public land managers at federal, state and local agencies**

As shown in the figure above, federal agencies were most likely to report a decrease in funding over the last five years. Nearly 88% of federal agency representatives reported a funding decrease, compared to 60% of state agency representatives and 34% of local agency representatives. In contrast, local public land managers were most likely to report an increase (46%) in funding.

Responses to open-ended survey items attributed negative budget trends to increases in the cost of labor and reductions in tax revenue. Participants who reported positive trends in funding attributed these to new grant awards, increases in local revenues and shifts in local funding priorities to meet the growing number of people visiting public outdoor spaces.
The next figure presents findings regarding the stability of public land management budgets at federal, state and local levels. Nearly four out of five (79.2%) federal PLMs indicated that funding was ‘somewhat’ or ‘very unpredictable,’ followed by just under half (46.7%) of state agency respondents. In contrast, local public land managers were most likely to report stability in annual budgets (78.6% compared to 53.3% and 20.8% at state and local agencies respectively).

**Figure 8. Stability of federal, state and local public land management budgets**

Mirroring funding trends over the past five years, findings indicated a declining trend in staffing levels at public land management agencies. As shown in the following figure, a large majority (87.5%) of federal public land managers reported staffing decreases, with a smaller majority (60%) of state public land managers reporting similar negative trends. Additional analyses of these data found that public land managers who reported moderate or significant decreases in staffing levels over the past five years also reported reductions in funding over that same time period.

Local public land managers, again, were least likely to report negative staffing trends and most likely to report increases in staffing levels over the last five years. Moreover, data suggests that local public land managers were almost as likely to experience staffing increases as decreases or unchanged staffing levels.
Additional calculations, using the actual and desired staffing levels reported by PLMs, indicated that both federal and state public land managers were operating with an average of two-thirds of the full-time staff desired, and local public land managers, overall, operated with an average of 80% of desired full-time staffing capacity.

Beyond these funding and staffing gaps, the survey documented the most common areas in which public land managers reported gaps in the agency’s capacity to perform public land management works. The following figure displays the five areas where public land managers indicated the largest gaps at federal, state, and local agency levels. As illustrated by deeper color shading in the bar chart, there were a number of gaps reported across all agency levels (local, state and federal):

- Lacking resources and expertise to address invasive terrestrial species
- Insufficient resources to support and effectively manage newly acquired lands
- Inadequate trail construction and maintenance
- Overdue facility construction and maintenance.
Moreover, as the chart illustrates, federal public land managers were more likely to report larger gaps in their agencies’ capacities than their state or local counterparts.

The survey also asked public land managers to rate how challenging their agency found different land management issues, ranging from law enforcement and user group conflicts to management of forests, invasive species, and fisheries, and the maintenance of existing trails, facilities, and other recreational resources. Across all three agency levels, public land managers indicated that their most difficult and persistent challenges were:

- Invasive species management
- Capacity to serve a growing population.
In addition, both federal and state agency representatives reported maintaining existing recreation infrastructure or resources as an area of moderate challenge. State and local agencies also identified the management of water availability/conservation and off-leash dogs as key challenges. Once again, public land managers from federal agencies assigned highest overall ratings to challenges, followed by state and, then, local PLMs.

Most participants (86%), however, indicated they were able to attract people with the necessary skills to address land management needs. This suggests that public land management staff typically has the needed skills; it is the shortage of staffing and the scope of public land
management which has created these gaps. Qualitative interviews supported this interpretation as well, acknowledging that temporary staff were hired during busier seasons.

Collectively, findings indicated that with the exception of some well-resourced local government agencies, public land managers have more demands on their time and lands, and less funding and fewer staff members to address issues. Further, qualitative findings suggested that the responsibilities of public land managers were becoming more complex. On one front, human resource management was a growing and important role, necessary to engage and balance the appropriate mix of staff, seasonal workers and volunteers throughout the year. With the diversification of funding, there also was a growing focus on grant writing and grant management. Additionally, growing demands upon public land managers were making it challenging to plan for longer term natural resource management. Although public land managers found planning essential to effective public land management, they also observed that there was insufficient time and that it was challenging just to keep up with the day-to-day.

"Daily needs take priority, and with the level of need that currently exists for staffing, funding, and other measures that are necessary to build the capacity of land management organizations, meeting those daily needs can be a challenge." (PLM, Interview)

As a result of these many factors, public land managers have become increasingly reliant on volunteer sources of labor. Survey and qualitative findings found broad recognition among public land managers regarding the integral role that volunteers play in public land management work. On the survey, when asked to rate how heavily an agency relied on various community groups and agencies, PLMs indicated that the use of volunteer labor was both prevalent and heavily relied upon.4

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4 "Youth corps" was assumed within this broader category of volunteer stewardship organizations, although youth corps compensate youth employees for their labor. Data obtained through interviews confirmed heavy reliance on youth corps by PLMs.
The survey also documented the types of work for which public land managers engaged volunteers. As depicted below, across local, state and federal levels, a majority of agencies utilized volunteers for maintenance and construction projects, projects involving the responsible use of natural resources and educational programs. A large majority of federal and state public land managers also reported using volunteers to staff visitor services.
Given reported gaps in agency capacity to fulfill maintenance and construction needs, and the challenges associated with a growing population, it may not be surprising that public land managers have found ways to utilize volunteers in order to fill work needs in these four areas.

Qualitative data supported survey findings regarding the critical role of volunteers and the range of roles that they provide. Moreover, several PLM participants observed that the work of their agency would be “impossible” without the use of volunteers.

“It helps us ... [in] things that we just can’t do, because we have hundreds of acres to manage, and we just don’t have the ability to have staff out there doing all the things, like picking up trash, or just monitoring a site and letting us know this trail, you know, has a blow-down in it, or this recreation site has been vandalized. We rely on volunteers for that type of information.” (PLM, Interview)

While public land managers reported broad use of volunteers, the majority of participants at federal and local levels indicated that it was not mandated by agency policy. As shown in the figure below, only a majority (57.1%) of state public land managers reported this requirement. Further, even among those required to utilize volunteers, almost all public land managers reported positive experiences utilizing volunteers (95.7% of federal, 92.9% of state and 84.3% of local PLMs), and

<table>
<thead>
<tr>
<th>PLM Work Area</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
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<tbody>
<tr>
<td>Maintenance or Construction</td>
<td>87%</td>
<td>100%</td>
<td>81%</td>
</tr>
<tr>
<td>Resource Management</td>
<td>91%</td>
<td>100%</td>
<td>72%</td>
</tr>
<tr>
<td>Interpretive, Outdoor or Environmental Education</td>
<td>74%</td>
<td>100%</td>
<td>59%</td>
</tr>
<tr>
<td>Visitor Services</td>
<td>87%</td>
<td>100%</td>
<td>43%</td>
</tr>
</tbody>
</table>

**Sources of Volunteers for Public Land Management Projects**

**Community youth groups**
Source for interns. Also, youth corps engages young people on a large scale.

**Educational Institutions**
Student groups interested in outdoor volunteer work. Academic departments that provide student credit for work opportunity.

**Recreation groups**
Group members may have a personal connection and reap benefits from volunteer work on public lands.

**Military**
Installations may serve as a source of volunteer labor. Also, veterans groups can be engaged.

**Community service groups**
Organizations such as the Kiwanis Club.
a large majority (86.4% of federal, 76.9% of state and 78.4% of local PLMs) indicated interest in increasing use of volunteers.

**Figure 15. Public land managers’ experiences with volunteers**

<table>
<thead>
<tr>
<th></th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is Required to Use Volunteers</td>
<td>39.1%</td>
<td>57.1%</td>
<td>39.2%</td>
</tr>
<tr>
<td>Has Had Positive Experiences Using Volunteers</td>
<td>95.7%</td>
<td>92.9%</td>
<td>84.3%</td>
</tr>
<tr>
<td>Is Interested in Increasing Utilization of Volunteers</td>
<td>86.4%</td>
<td>76.9%</td>
<td>78.4%</td>
</tr>
<tr>
<td>Does NOT Have the Staff Capacity to Work With Volunteers</td>
<td>47.8%</td>
<td>46.2%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

In contrast, however, public land managers demonstrated substantially lower confidence in their agency’s capacity to work with volunteers. Nearly half of federal and state PLMs, and a third of local PLMs, indicated insufficient staff capacity to support volunteer engagement. Additional correlational analyses revealed that those who said they did not have the capacity to manage volunteers were somewhat less likely to report positive volunteer experiences and desires to increase utilization. This finding likely reflects one or both of the following scenarios: (a) PLMs with insufficient capacity to effectively manage volunteers may have experienced less productive work by volunteers as a result; or (b) PLMs who have had negative experiences with volunteers subsequently perceive that the capacity necessary to effectively utilize them is considerable.

Qualitative findings confirmed that while PLMs recognized the importance of volunteer labor to public land management, they also did not feel adequately equipped to engage and manage volunteers. PLMs indicated that effective usage of volunteers in land management projects required additional staff time to plan and coordinate these activities and that staffing resources were not available to support this work.

A number of PLMs discussed the need for more systematic processes for involving volunteers, observing that they often utilized volunteers on an ad hoc basis. These participants indicated that volunteer management was largely reactive and described fielding requests on a case-by-case basis to determine whether staff is available to make the volunteer opportunity happen. This, they indicated, was inefficient as relationships would need to be re-established and the knowledge of
how to support volunteer projects was not centralized. Several PLMs indicated that it would be very helpful if they had one person in each office who had defined responsibilities for and interests in working with volunteers. Several others recognized that there was an opportunity to utilize volunteer stewardship organizations to help fulfill a number of volunteer management needs. One PLM commented that it would be helpful to have a sister volunteer stewardship organization housed in the same offices with public land managers to support their work together.

“At some point, if you take on something else, you are dropping something else. … [I]t is hard to take on any new stuff even if there is a benefit to it. … [I]t takes time, personal time, to contact volunteers, as well as money to buy … or to get them the tools and supplies that they need. It takes a lot of effort and commitment to make it worthwhile for them, and it is hard to kind of make that commitment ’cause if you do that, you are giving up something else.…” (PLM Interview)

In contrast, there were some PLMs who reported having strong volunteer programs with dedicated staff members available to field requests.

Two additional findings were observed from qualitative interviews. While PLMs emphasized the importance of having greater volunteer management capacity, a number of interview participants saw opportunities for the expansion of volunteers within the field of public land management. On the one hand, PLMs noted that outdoor volunteer experiences offered an important opportunity for keeping the public in touch with their lands. Yet, they also discussed the need to expand the traditional concept of outdoor volunteer activities in order to truly support public land management needs and more fully engage the public.

PLMs observed that volunteer involvement can create opportunities for people to develop closer ties to the land and inspire a sense of responsibility for ensuring their long-term protection. Further, PLMs recognized the roles that volunteers can play in influencing others to volunteer or view public land issues differently. One PLM noted, for example, that involving volunteers in land management work can be one way to increase transparency and buy-in into public land projects, particularly if they are of a controversial nature.

“Engaging people in the stewardship of the land that we own is a way to increase their buy-in…. If you get people out on the land and kind of see what the land is like and get them to be involved with either our staff or with other team leaders who can talk about the importance of the land or the importance of the management activity that we are engaged in, I think it just enhances the connection between the individual and their idea of caring for the land.” (PLM, Interview)
PLMs also conveyed a need to engage volunteers in public land management more broadly. They noted that volunteer activities have typically been characterized as boots-on-the-ground, hands-in-the-dirt outdoor projects. However, they reported a need to engage volunteers in less traditional areas as well, such as office work or monitoring functions.

“We’d like to see, ..., a little bit of stretching the boundaries of what people are...interested in as far as volunteering. ... I think there is actually room for volunteerism in other [areas]...some of the monitoring... biological and ecological aspects of our jobs. I think there is a big role that volunteers can play there. So maybe it is pushing that envelope a little bit as far as what folks traditionally think of as those volunteering opportunities.” (PLM, Interview).

PLM participants acknowledged that there may not be sufficient volunteer interest in non-traditional stewardship activities, as these works may not directly involve connection to the land. Further, some observed that non-traditional volunteer activities might have limited impact on the promotion of environmental stewardship. Meanwhile, several public land managers indicated that if volunteer management capacity could be addressed, it would be helpful to explore the involvement of volunteers in these more non-traditional work areas, offering public land managers additional tools for managing workload and making longer term planning more viable.

VOLUNTEER STEWARDSHIP ORGANIZATIONS, PARTNERS AND RESOURCES IN PUBLIC LAND MANAGEMENT

“This country needs a group of people who are interested in the outdoors—people who will engage with, care for ... the environment.” (VSO, Focus Group)

Volunteer stewardship organizations (VSOs) reflect a range of organizations that are founded to engage the public in the protection and preservation of outdoor spaces and lands. They are known for their ability to recruit, organize, train and deploy volunteers and support land management in a variety of ways. Some examples include:

- Direct contributions to land management activities: This can include trail building and maintenance projects, habitat restoration, research and monitoring, tree planting, erosion control and other land and wildlife management tasks.
- **Training**: Some VSOs are known for the training opportunities they provide in land management activities; some examples are trail building workshops and trainings in the use of specific pieces of equipment.

- **Resource development**: VSOs engage in a variety of fundraising activities supporting projects and programs including individual giving and events, corporate sponsorships and government or foundation grants.

- **Education**: VSOs offer opportunities such as internships, leadership trainings, courses and lectures on environmental education topics and projects that allow youth to interact with and learn about public lands.

- **Citizen engagement in caring for public lands**: VSOs support the development of an involved constituency that cares about and is willing to spend time caring for public lands.

### Volunteer Infrastructure Provided by Volunteer Stewardship Organizations

To learn more about the role of volunteer stewardship organizations in public land management, the statewide assessment collected survey responses from representatives of 90 VSOs throughout the state, including youth corps, recreation or special interest groups, nonprofits and community coalitions. Survey responses indicated that VSOs provide a wide range of services, although the types of volunteer-supported services varied among VSOs.

As the following figure displays, a majority of surveyed VSOs reported providing volunteer opportunities in trail work (70%), maintenance/construction (66%) and the responsible use of natural resources. Fewer than half, but a significant proportion, of VSOs reported providing volunteer opportunities in project planning and coordination (46%), fundraising (42%), educational programs (41%) and marketing (41%). Among the ‘other’ volunteer opportunities reported, VSOs indicated monitoring vegetation and wildlife; community outreach; fire mitigation, fighting and rehabilitation; research; grant reviewing; and policy development.
Survey findings also indicated that VSOs, overall, have the required capacity to support land management projects in a number of areas, including those areas where they provide the most volunteer opportunities, such as trail work. They reported environmental education (among small and large organizations), erosion control services (among small VSOs and those serving 1-2 regions), and habitat restoration (larger VSOs) among the areas of highest capacity. The figure below displays those areas that scored a medium rating or higher in capacity of VSOs.

**Figure 17. Public land management tasks that score at least moderate capacity by VSOs**

<table>
<thead>
<tr>
<th>Small VSOs</th>
<th>VSOs serving 1-2 regions</th>
<th>Large VSOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail Construction/Maintenance</td>
<td>Trail Construction/Maintenance</td>
<td>Trail Construction/Maintenance</td>
</tr>
<tr>
<td>Environmental Education</td>
<td></td>
<td>Environmental Education</td>
</tr>
<tr>
<td>Erosion Control</td>
<td>Erosion Control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Habitat Restoration</td>
<td>Habitat Restoration</td>
</tr>
<tr>
<td></td>
<td>Invasive Terrestrial Species</td>
<td></td>
</tr>
</tbody>
</table>
In addition, VSOs provide organizational support regarding the use of volunteers for outdoor projects, including logistics and incentives involved in volunteer recruitment. For example, as the following figure shows, the survey found that 80% of VSOs provide food and drink to the volunteers that they organize and 25% provide carpooling. VSOs also provide a range of social and individual incentives or gifts to thank volunteers and encourage future volunteerism, including social or networking opportunities (55%) and adventure/vacation experiences (18%). Finally, VSOs also provide opportunities for volunteers interested in growing their professional skills in land management: 49% reported provided skill-building training to volunteers and 33% provide internships.

Figure 18. Volunteer support and incentives offered by VSOs

Another aspect of the infrastructure that VSOs provide for volunteer engagement is their number, location and reach within the state. Mapped against the state’s six tourism regions, VSOs indicated extensive volunteer recruitment and volunteer project activities across the state. As shown in the following figure, the VSOs participating in the survey indicated coverage in each region of the state.

However, there was some variation in the level of coverage by tourism region and the size of VSOs. By and large, tourism regions with fewer VSOs and volunteer activities had relatively
smaller proportions of public lands within the region (i.e., Northeast and Southeast). The size or regional reach of a VSO, however, was associated with some interesting differences:

- All larger VSOs (those organizations with work spanning three or more regions) reported projects in the South Central region and all but one indicated Front Range work. The Southwest (82%) and Northwest (71%) regions were also covered by a strong majority.
- Larger VSOs were more likely to conduct volunteer projects in the eastern side of the state, than smaller VSOs.
- Less than one-third (n=5) of large VSOs, and only 5.5% of the overall sample of VSO survey respondents operated statewide.

Figure 19: % of volunteer stewardship organizations serving public lands regionally and by organizational size

<table>
<thead>
<tr>
<th>% of VSOs Conducting Projects by Region</th>
<th>% of VSOs Recruiting Volunteers by Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Region</td>
<td></td>
</tr>
<tr>
<td>Local (n=61)</td>
<td>Local (n=61)</td>
</tr>
<tr>
<td>Serving 2 Regions (n=12)</td>
<td>Serving 2 Regions (n=12)</td>
</tr>
<tr>
<td>Serving 3+ Regions (n=17)</td>
<td>Serving 3+ Regions (n=17)</td>
</tr>
<tr>
<td>Front Range</td>
<td></td>
</tr>
<tr>
<td>46%</td>
<td>62%</td>
</tr>
<tr>
<td>59%</td>
<td>67%</td>
</tr>
<tr>
<td>94%</td>
<td>94%</td>
</tr>
<tr>
<td>Northeast</td>
<td></td>
</tr>
<tr>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>Northwest</td>
<td></td>
</tr>
<tr>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>71%</td>
<td>59%</td>
</tr>
<tr>
<td>South Central</td>
<td></td>
</tr>
<tr>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>50%</td>
<td>42%</td>
</tr>
<tr>
<td>100%</td>
<td>82%</td>
</tr>
<tr>
<td>Southeast</td>
<td></td>
</tr>
<tr>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Southeast</td>
<td></td>
</tr>
<tr>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>25%</td>
<td>77%</td>
</tr>
<tr>
<td>82%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Note: These data reflect all land management volunteer activities of participating VSOs. Results were not limited to public lands activities. Results in this table can be compared to the percentage of space designated as public land, reported in Figure 2. For example, although the Northeast and Southeast have relatively few volunteer stewardship organizations servicing their regions, they also have a relatively small proportion of land designated as public lands.

The survey also documented wide ranging volunteer capacity among VSOs: some operating with as few as 10 volunteers annually and others that manage and recruit several thousand annually. Over half of the volunteer stewardship organizations surveyed indicated working with 100 or fewer volunteers per year. The majority (66.7% or two-thirds of participating VSOs), however,
indicated that the size of their volunteer base had grown over the past five years and collectively reported 871,690 volunteer hours garnered by their agencies to care for Colorado’s outdoor spaces.

A final area of VSO contributions examined the training that VSOs provide volunteer crews in order to ensure quality land management works. Responses to the VSO survey indicated that 90% of VSOs participating in the assessment provided some form of training for their volunteers, and over half (56.8%) reported that other organizations or agencies served as resources in providing volunteer training. As we have seen with volunteer capacity above, however, the capacity to provide volunteer training varied among VSOs.

Survey and focus group findings indicated that volunteer training in the following areas were commonly available.

- Recreational activities, such as ski instruction or fly fishing activities
- Safety trainings, such as first aid, CPR and wilderness first responder
- Leadership skills, such as project management or crew leadership.

Yet, findings also suggested that the level and quality of training varied -- from instructional guidance on the day’s work to advanced skills trainings provided over several days. Further, as shown in the figure in the next section, VSOs as a whole were neutral (neither agreeing or disagreeing) in their responses concerning the availability of adequate training resources for volunteers.

On the whole, however, VSOs provide important infrastructure throughout the state in protecting the outdoors and in meeting a number of areas of public land management needs, such as trail development and maintenance, as well as construction and maintenance of recreational facilities. This infrastructure creates a pipeline for volunteers that is organized and supported in carrying out outdoor projects. In many regards, the infrastructure that VSOs provide positions them well to support public land management.

**Gaps in the Capacities of VSOs**

Despite infrastructure and the positive trend towards a growing volunteer base, surveys and focus groups indicated that VSOs, overall, did not have sufficient capacity to effectively use growing numbers of volunteers. Further, results suggested that there were both content and operational areas where VSOs required further reinforcement in order to help offset public land management needs. Regardless of size, volunteer stewardship organizations indicated having insufficient capacity in fire restoration, facility construction/maintenance, equipment maintenance, water quantity and quality and supporting the management needs associated with newly acquired lands.
In addition, VSOs were generally neutral regarding many internal capacities, such as having sufficient training resources and equipment, capacity to manage volunteer absenteeism and opportunities to network and collaborate with other volunteer stewardship organizations (see the following figure).

Moreover, qualitative findings indicated that while VSO participants reported their agencies provided or accessed trainings in at least some of the areas listed below, they also indicated that overall the amount or quality of training available was not sufficient:

- Technical land management skills, such as restoration or preservation techniques and monitoring
- Science-based skills, such as botany, research and species identification
- Instruction specific to pieces of equipment, such as chippers and chainsaws
- Preparation for administrative duties, such as answering phones or data entry
- Visitor services trainings, such as education, docent training or interpretive skills.

Other volunteer training needs that appeared largely unmet among VSOs were:

- Emergency and natural disaster assistance and recovery
- Development training, such as capacity-building, fundraising and marketing.

Further, qualitative findings indicated that while VSO staff often have expertise in natural resource related fields, many of their staff require training in nonprofit management.
As shown above, no positive statements of capacity received average ratings of 4 or more in common areas of VSO operations. Negative statements of capacity, displayed in yellow bars, also received middling ratings. A majority of VSOs, whether they were local, regional or statewide in reach, reported funding (59%) and staffing (60%) challenges. Overall, data suggested that VSOs perceive gaps in their capacity to fulfill a range of dimensions critical to their efforts. Additional context provided by VSO participants through qualitative data made clear that limited funding and staffing is a foundational issue affecting organizational capacity.
“Trying to fill out a budget and a schedule to bring in enough support staff to make a program feasible is a balancing act that we do each year.... [I]f we knew that we had some secured funding, it would be a lot easier for us to budget and have a magic number of staff to deal with anything that might get thrown at us.... [W]e had that through American Reinvestment and Recovery Act, and now that we’re coming out of that, we’re back to pretty uncertain times.”

(VSO, Focus Group)

While VSOs share many funding and staffing issues with PLMs, they also experienced unique aspects. For example, participants spoke a great deal about the short-term nature of many funding resources, as well as restrictions that prevent the use of funds for operational costs. Participants expressed concern that these funding trends ultimately undercut the ability of VSOs to provide meaningful volunteer experiences, to retain highly trained staff, and support the needs of public land management.

Another concern that was identified through both surveys and focus groups was the relatively short lifespan of outdoor volunteerism. As shown below, participating VSOs tended to report that many volunteer projects were of a short-term nature, often due to volunteer preference. Further, organizations were largely neutral (not agreeing or disagreeing) about having enough skilled volunteers to accomplish their work or having a sufficient number of long-term or repeat volunteers.

Of note, the survey found that VSOs tend to offer one-day volunteer events, requiring a time commitment of eight hours or less per project (see figure below). One-day events provide an opportunity for volunteers to complete a project and see the result of their efforts. (Youth corps are unique in this regard, with the majority of their projects taking place over 8 to 12 weeks, a timeframe applicable to the employment nature of the youth corps and not so for most VSOs and, thus, not included in the table below.)
Nearly 67% of VSO survey participants reported organizing volunteer projects of a full day or a lesser time commitment, in comparison to the 28% that reported week or longer service project time commitments. Survey responses indicated that VSOs tried to match the length of volunteer events to the preferences of their volunteer base.

STRENGTHENING PARTNERSHIPS FOR OUR PUBLIC LANDS

Study findings underscore the common goals that PLMs and VSOs share in caring for Colorado’s outdoor spaces and building collective responsibility and stewardship of public lands. Study findings also suggest that current challenges in public land management represent a "new normal" (e.g., funding uncertainties, diverse and growing land use and complex issues facing our ecosystems), and that this climate requires different perspectives and practices within the partnerships developed with VSOs to meet public land management needs. While public land managers rely on a wide variety of sources of volunteer labor to meet needs, the report suggests that volunteer stewardship organizations are underutilized, despite being well-positioned to support public land managers in many areas. This section examines the current scope of collaboration between PLMs and VSOs and current barriers to the expansion of such collaboration. It also provides a concluding summary regarding the areas of alignment and “misalignment” that currently support and impede effective partnerships.
Scope of Current Collaboration

VSOs were asked to identify the federal, state and local public land management agencies, as well as other types of partners, that they work with to meet land management needs. VSO responses were broken into different groups based on size or reach (i.e., organizations with service areas that are statewide, multiple regions or a single region), given that this might impact the types of PLM agencies with which they partnered. The results displayed below indicate that VSOs partner with a wide range of PLM agencies.

Overall, the large number of VSOs sampled in this study indicated that they support a variety of PLM agencies, from federal to local entities. On average, VSOs reported partnering with an average of 4.82 PLM agencies to help address land management issues. As would be expected, VSOs with broader geographical reach were more likely to cite partnerships with PLM agencies at all levels (federal, state and local) than those with narrower reach. However, as a whole, VSOs were most likely to work with the U.S. Forest Service and Colorado Parks and Wildlife, regardless of size. In addition, larger VSOs were more likely to report working with the Bureau of Land Management (BLM) and National Park Service, while partnerships with the Colorado State Forest Service were somewhat more likely among VSOs with service areas restricted to 1 or 2 regions of the state. VSOs also reported a number of collaborative projects with local or city and county government, and non-profit conservation organizations. Other mentions included local watershed associations or conservation districts, private land owners or homeownership associations and universities. Out of 90 VSOs surveyed, only two indicated that they do not partner with PLM agencies.
These findings contrast those reported by PLMs, which overall, indicated reliance on many sources of volunteer labor and only 46.4% of which indicated relying on volunteer stewardship organizations "a good amount" or more.
Perceived Effectiveness

Perceptions of the effectiveness of PLM-VSO partnerships were explored through the VSO survey, VSO focus groups and interviews with PLMs. Findings suggested that VSOs and PLMs tend to have positive interactions with one another and wish to increase interaction; and, several already have well-established partnerships. However, issues concerning the staff availability of PLMs, readily available information about VSOs and quality control emerged as potential barriers to effective partnership.

“...[O]ur partners are stretched so thin, and it’s not for lack of desire. It’s...lack of time that prevents them from being able to manage multiple projects with volunteers.” (VSO, Focus Group)

As shown in the following figure, VSO participants, on average, moderately agreed that PLMs collaborate well with VSOs, participate in volunteer project planning, and clearly describe their project needs. VSOs were somewhat less likely, however, to indicate that PLMs have the financial or staffing capacity to effectively utilize VSOs.
These findings were supported by PLM self-reported capacity ratings with regards to volunteer management. As reported earlier, nearly 48% of federal agencies, 46% of state agencies, and 33.3% of local agencies reported lacking sufficient staff capacity to effectively work with volunteers.

In addition, VSOs moderately agreed with the statement that PLMs “need more information” on volunteer stewardship organizations to collaborate effectively. Through interviews, PLMs acknowledged that the lack of prior experience in working with a VSO might impact whether PLMs utilized VSOs to meet their project needs. However, PLMs also reported that inaccessible locations and the technical requirements of the project might also impact decisions regarding the engagement of VSOs. VSO focus groups, in contrast, suggested their need to provide PLMs with readily available information about the types and locations of projects where volunteers have been effectively and successfully used as well as the kinds of quality control practices they have in place to ensure success.

VSOs suggested that PLMs were likely unaware of the range of volunteer services that they provide, including providing volunteers capable of doing low-skill projects, to highly technically skilled crews to fundraising and marketing. Moreover, they indicated that PLMs likely lacked
information about existing VSOs with proximity to priority projects. Having said this, the PLM’s knowledge and use of volunteers may likely vary depending on whether the PLM works most closely with a VSO who is place-based, regional or statewide.

Focus group data from VSOs also indicated that there was room for VSOs to improve upon quality control and that it was natural, although time-consuming, to establish relationships with PLMs that build on reliable work performance. Focus group participants reflected on steps that they could take to demonstrate preparedness for land management projects, for example. As one focus group participant reflected, “You have to be able to show [PLMs] that you know what the standards ... and that you’re really consistent. That you don’t do unsafe, crazy stuff. It’s really making sure that you can offer what they want and also solid skills.”

PLMs that utilized VSOs indicated that they found them well-positioned to assist PLMs with land management tasks. As one PLM explained, “The best thing that helps us make better use of volunteers is when they come already orchestrated, organized, trained and good to go.” In particular, PLMs appreciated groups like youth corps that were organized and able to provide their own equipment, a trained crew and supervision.

Across interviews, PLMs generally reported finding VSOs to be well-organized and capable of the tasks at hand. Those less directly knowledgeable about VSOs tended to acknowledge their reputation for knowing how to manage volunteers for projects of varying scopes. Moreover, PLMs acknowledged the general benefit of volunteers in allowing more projects to be completed and their staff more time for planning and other necessary functions. However, interview data also suggested that individual PLM’s willingness to work with VSOs may be dependent on personal perceptions of VSOs’ abilities to make meaningful contributions to land management.

“Somebody there needs to know what they are doing and how they are doing it so that we end up with a quality product, and that’s where I think the Volunteers of [Outdoor] Colorado or other youth corps organizations that know what they are doing and have the training to do it are important to be partners in that process. But just to go out and gather a group of citizen volunteers or corporate community volunteers isn’t always going to end up with the results that you are hoping for.” (PLM, Interview)

VSOs also indicated that they were interested in improving partnerships with PLMs in order to provide a quality volunteer experience on public land management projects. As one focus group participant described, “We both need things to get done and accomplished, but we also have to have an engaging and educational experience.” They noted that resource gaps and the overextension of PLM staff limited the amount of time that PLM staff were available to provide information and to interact with volunteers. Further, VSOs commented that this at times negatively impacts volunteer understanding of both the practical aspects and the larger
importance of their work. VSO participants observed that exposure to PLMs, although typically brief, is a valuable aspect of the volunteer experience.

Overview of Factors that Facilitate and Impede Effective PLM-VSO Partnerships

As described within this report, there are a number of factors that align the work of PLMs and VSOs, making them natural partners in the performance of public land management. In addition, as has been the focus of this section, there also are factors that inhibit collaboration between PLMs and VSOs, obscuring the benefit that their partnership has for the state’s public lands. The following figure summarizes the areas where there is alignment, as well as misalignment in current relations between PLM agencies and volunteer stewardship organizations.

As shown and previously discussed, there is alignment in the mission of the organizations suggesting that PLMs and VSOs are natural partners. There also is alignment between the most critical gaps in PLM agency functions and the areas among which VSOs self-rank their strongest service capacities. Further, the study has documented statewide, multi-regional and local VSOs active in every region of the state, suggesting a proximity to and ability to recruit volunteers for many public land management projects.

**Figure 23: Alignment between public land management and volunteer stewardship organizations**

<table>
<thead>
<tr>
<th>Alignment</th>
<th>Misalignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication to caring for Colorado’s public lands and promoting public stewardship of these lands</td>
<td>Short-term, project-specific contracts (versus long-term partnerships)</td>
</tr>
<tr>
<td>Project Needs and Service Provision</td>
<td>Barriers to sustaining a technically skilled volunteer labor base</td>
</tr>
<tr>
<td>- Environmental education</td>
<td></td>
</tr>
<tr>
<td>- Habitat Restoration</td>
<td></td>
</tr>
<tr>
<td>- Trail construction and maintenance</td>
<td></td>
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<tr>
<td>- Erosion control</td>
<td></td>
</tr>
<tr>
<td>- Invasive terrestrial species mitigation</td>
<td></td>
</tr>
<tr>
<td>Statewide, regional and local needs for and sources of volunteer projects and volunteers</td>
<td>Underutilization of volunteer stewardship organizations</td>
</tr>
</tbody>
</table>
There also is evidence of the underutilization of volunteer stewardship organizations. For example, PLMs reported working directly with individual volunteers at a rate that exceeded that of coordinating with VSOs. As we uncovered in this section, this underutilization may be due to a lack of information about VSOs, as well as reflective of the need for VSOs to demonstrate ability in providing quality control over projects. There are also barriers that short-term, project-specific contracts create for VSOs, as well as the ongoing need to replenish a technical skilled volunteer base. These latter topics have received the least attention thus far in the report and are further elaborated below.

**PROJECT-SPECIFIC FUNDING**

PLM and VSO partnerships are typically characterized by a contract relationship, where PLM agencies contract with a VSO to perform a specific service for a fee. In focus groups, VSOs raised a number of questions related to contracting processes, some of which are addressed within the final section of the report. VSOs voiced concerns regarding the contract processes being employed very differently depending on the governmental agency and expressed a desire that contracting processes, in general and by agency, be simplified. They also expressed concern regarding the short-term nature of these contracts and the lack of a larger vision of partnership opportunities that extend beyond the completion of a specific project. VSOs suggested that partnerships between PLMs and other funders might also support volunteer program development and implementation practices that increase the likelihood of long-term sustainable volunteer capacity for project work. Moreover, they suggested that they would like funding agencies to recognize that investing in the development of well-resourced VSOs, with skilled and experienced staff necessary to foster high quality volunteer engagement, ultimately leads to enhanced volunteer engagement and quality project work. VSOs contrasted this vision with existing relationships and indicated that there was little funding appetite, or awareness, for VSO infrastructure development needs or associated project planning costs which often are “sunk costs” when a project is unexpectedly canceled or re-scheduled.

**MAINTAINING A TECHNICALLY SKILLED VOLUNTEER BASE**

As noted previously, VSOs largely recruit and utilize volunteers who volunteer for a one-time project or may volunteer infrequently, what this report and project stakeholders refer to as “episodic volunteerism.” While episodic volunteerism engages a broad swath of Colorado’s residents in an outdoor volunteer activity at some point in their lifetime, it also requires ongoing replenishment of the volunteer base. Infrequent volunteerism also presents challenges to the development of a more technically advanced and experienced volunteer base.

*Benefits and Challenges of Episodic Volunteerism*

Episodic volunteerism is useful in meeting large or otherwise unique project demands, for example following a natural disaster. VSOs value the opportunity to introduce new volunteers to outdoor stewardship work. However, VSOs do not often see volunteers return or develop into ongoing
stewards. In a certain respect, VSOs have embraced the episodic volunteer as a part of their reality. Yet, the challenge with episodic volunteerism is the need to identify contexts in which new volunteers can make meaningful contributions, particularly as VSOs work to be valued partners to PLMs.

“The short duration volunteer opportunities are most popular. The average skill level is lower, and they are less efficient because you gear up and talk about safety then the time is over; so, ‘on the ground’ accomplishment is low. There is higher input and lower output in this trend towards episodic volunteerism.” (VSO, Focus Group)

Infrequent volunteers are less experienced and require more oversight by VSOs. When volunteers have experience, training and/or are skillfully managed by a crew leader or volunteer coordinator, they are more likely to produce high-quality work independent of the PLM. Still, to achieve this level of performance, volunteers must commit a significant amount of time to trainings and on-the-ground experience.

“Inexperienced people, that’s the most challenging part. I tell you, if I get eight or ten people that know what they are doing and sign up for a trail day, I’d take that over 25 people that don’t know what they are doing.” (VSO, Focus Group)

Further, when there is an imbalance between the numbers of one-time volunteers and return volunteers that are needed, volunteer recruitment can become resource-intensive and inefficient. Given that most volunteers serve on an episodic basis and typically for a half-day or one-day project (70%), this can exacerbate the issue of unskilled volunteers. There is a need to develop leaders that can successfully manage projects with episodic volunteers that are engaging at a basic level. By strategically focusing on individuals hoping to pursue a career in public land management, PLMs and VSOs could increase the numbers of committed volunteers coming through their doors.

**Volunteer Training Needs**

Volunteers often do not have the training needed to be an effective labor source for PLMs, especially for more technically demanding projects. Training is critical in developing not only the required skills necessary for leading and undertaking stewardship projects but also serves as a mechanism by which volunteers may deepen their commitment to outdoor stewardship and grow personally and professionally. However, to be able to offer higher level skills, volunteers may be required to pursue intensive certification programs, requiring considerable commitment that may deter many volunteers. In addition, participants highlighted the apparent lack of local trainings, making it difficult for volunteers to expand their skills.
To ensure that volunteers are able to effectively meet land management needs, accessible, timely and appropriate trainings are critical. VSOs also must be able to invest the time and resources required to develop and offer such trainings. It is apparent that VSOs are working to be innovative by packaging trainings in a way that works for volunteers and the time they are willing to give (e.g., abbreviated modules, online trainings). One focus group participant shared, “Dedicating a whole weekend to training is a lot to ask for people. We have stripped it down to a one-day training, but that is a challenge because the shorter duration of the training leads to lower skill level.” However, as noted, the balance between shorter trainings and the level of skill achieved through those trainings has not yet been completely resolved.

In addition to a need for innovative trainings that would increase volunteer willingness to participate, PLMs spoke to the importance of offering appropriate trainings that would help align volunteer skills with PLM needs. One PLM stated, “I see trail building trainings advertised on these websites for these volunteer groups, but it is not really the training they really need. We don’t need them to design the trail. We just need them to be certified to use a chain saw.” As previously noted, VSOs observed specific training needs including technical land management skills, science-based skills and emergency and natural disaster assistance. Regional needs assessments would help to make sure that appropriate trainings are offered when and where there is demand.

Another barrier to be considered is that land management agencies may not accept volunteers trained through an outside entity, thus creative strategies for providing trainings may need to factor in the development of agreements between agencies or efforts may be required to identify common criteria that can be used by agencies to determine the adequacy of outside trainings. In general, findings suggest that increased investment in training infrastructure and a regional assessment of PLM needs may support VSO efforts to better equip in their work to make meaningful contributions.
Recommendations

This assessment underscores the common goals that PLMs and VSOs share, specifically related to caring for Colorado’s outdoors and engaging community members in the stewardship of public lands. Given the current realities of funding, changing demographics, population growth, and the complex issues facing our ecosystems, PLMs and VSOs must chart a new course for engaging volunteers. The approach needs to be efficient and targeted while offering volunteers the best possible experience to keep them committed and active. In order to effectively engage volunteers and be a resource to PLMs, however, VSOs need sustainable funding. The challenges related to public lands and volunteer engagement described in this report are, in all likelihood, “the new normal.” The collective response needs to acknowledge and reflect this reality and support a significant cultural shift for how PLMs work with VSOs and how VSOs develop to meet the growing needs of PLMs.

This section outlines the many recommendations that emerged from statewide assessment activities and were generated in collaboration with the Coalition. The recommendations are organized thematically and focus on increasing the capacity of volunteer stewardship organizations; increasing volunteer engagement; and improving and promoting partnerships between public land managers and volunteer stewardship organizations.

REINFORCE THE CAPACITY OF VOLUNTEER STEWARDSHIP ORGANIZATIONS

Geographic and Service Niche Gaps

- Conduct regional assessments of volunteer stewardship organizations and their capacity to meet the needs of public lands agencies in both geographic coverage and service niches.

Partnerships

- Build collaborative relationships between regional and statewide volunteer stewardship organizations in order to leverage resources and respond to local needs.
- Grow networks statewide to help bring greater visibility to the role volunteer stewardship organizations in protecting Colorado lands.

Training

- Survey and document existing volunteer training capacity in the state.
- Develop additional training resources as needed to ensure accessibility by less populated and under-resourced areas of the state.
- Design trainings that meet a range of volunteer interests and levels of commitment in terms of duration and prerequisites.

**Funding**
- Work collaboratively to research and solicit public and private funding that benefits all partners and reduces competition among volunteer stewardship organizations.

**STRENGTHEN VOLUNTEER SKILLS AND LONG-TERM INVOLVEMENT**

**Volunteer Database**
- Assess and track volunteer skills, interests and training, so that volunteers are deployed to projects that match their skills and interests.

**Volunteer Recruitment**
- Promote job skills that volunteers can develop through their work with volunteer stewardship organizations.
- Target individuals interested in careers in public land management or volunteer stewardship organizations.
- Broaden recruitment strategies to include family volunteer events, population-specific mentoring programs, and volunteer projects that engage the residents for whom the site has significant meaning.
- Integrate volunteer acknowledgment into all programs.

**STRENGTHEN COLLABORATION BETWEEN PUBLIC LAND MANAGEMENT AGENCIES AND VOLUNTEER STEWARDSHIP ORGANIZATIONS**

**Engagement of Volunteer Stewardship Organizations in the Planning, Priorities, and Work of Public Land Managers**
- Share agency priorities and long-term plans with local, regional and statewide volunteer stewardship organizations.
- Identify roles that volunteer stewardship organizations can play to support public land management needs.
- Include volunteer stewardship organizations in planning and coordinating volunteer projects on public lands.
Public Land Management Processes, Rules, and Agreements
- Educate volunteer stewardship organizations regarding funding rules.
- Create a toolkit to assist volunteer stewardship organizations in understanding and meeting public agency administrative requirements.
- Identify and publicize best practices regarding formal agreements between public land management agencies and volunteer stewardship organizations that cover legal requirements while maintaining simplicity and reflecting long-term partnership interests.

Create Pipeline of Volunteers to Work on Public Lands
- Leverage university connections to create links between natural resource degree programs and volunteer stewardship organizations.
- Recruit and engage volunteers who are ready to help address emergent needs on public lands (e.g., planning, species and habitat monitoring, trail assessments) that extend beyond traditional boot-on-the-ground, hands-in-the-dirt volunteer projects.

Statewide Education and Training
- Convene regional and statewide roundtables of volunteer stewardship organizations and public land management agencies to promote collaboration and efficiency.
- Create trainings that meet the needs of public land management agencies, volunteer stewardship organizations, and their volunteers.

Promoting Stewardship
- Highlight effective partnerships with volunteer stewardship organizations in professional meetings with other public land managers. Explicit examples can help to stimulate broader change within different agencies and open the door to increased collaboration.
- Engage volunteer stewardship organizations in training public land managers on principles of volunteer engagement with specific attention to introducing the range of community resources available to public land managers.

ENABLE ADMINISTRATIVE AND FUNDING APPROACHES THAT ARE MUTUALLY BENEFICIAL
- Invest in the direct and indirect services of volunteer stewardship organizations.
- Explore new funding arrangements that support program development in addition to project-specific activities.
• Examine partnership opportunities that leverage the volunteer training, recruitment and management capacities of volunteer stewardship organizations to benefit public land management agencies.
• Simplify contracts and agreements to promote efficiency and streamlined reporting requirements.

Conclusion

Through the hard work and generous donation of time by many individuals who care about the current condition and future of Colorado’s precious outdoor resources, this study has achieved several aims:

• Assessment of the current conditions facing both Colorado public land managers and volunteer stewardship organizations in their respective efforts to care for the state’s outdoor resources
• Examination of the opportunities for improving collaboration between public land managers and volunteer stewardship organizations in advancing the care for the state’s public lands
• Engagement of a broad swatch of public land management agencies and volunteer stewardship organizations in taking part in the assessment, generating greater awareness of issues and developing recommendations that will promote the goals of both entities.

With the conclusion of the study, the Colorado Outdoor Stewardship Coalition (COSC) is now tasked with implementing action steps that will make a significant difference in outdoor stewardship in Colorado. Through the release of the report, the COSC will share its findings and recommendations with its members, other VSOs, PLMs, decision makers and other potential stakeholders around Colorado. Members of the coalition also may share the findings and recommendations with the general public in regional meetings around the state in the coming months to provide an even deeper understanding of the regional issues facing VSOs and PLMs.

The study confirms the growing need to discover new ways in which VSOs and PLMs can more effectively partner and the heightened urgency of enhancing and strengthening volunteer capacity within both VSOs and PLMs to meet Colorado’s future stewardship needs. The recommendations laid out in this report offer an initial roadmap for VSOs and PLMs as they chart a course for more cost-effective and efficient collaborations and partnerships, offering a viable, long-term strategy for caring for our public lands.
References


Colorado Department of Natural Resources. (2010). Strategic Plan Fiscal Year 2011-12 (pp. 51–145). Retrieved from http://dnr.state.co.us/Budget/Pages/StrategicPlans.aspx


Appendix A: Qualitative Protocols

Protocols used for qualitative data collection are listed in their entirety below.

Qualitative Interview Guide for Land Managers

EVALUATION OBJECTIVES

Thank you very much for taking time out of your day to participate in this interview. Before we start, we want to give you a brief overview of the purpose of this project as well as request your consent to participate in and record the interview.

- The Colorado Outdoor Stewardship Coalition and Volunteers for Outdoor Colorado are partnering with OMNI Institute, a Colorado-based nonprofit social science organization, to carry out a study to determine the gaps and capacities to care for public lands.
- The study will explore nuanced perspectives on public land management needs, the capacity of community resources to meet land management needs, and perceptions about more directly engaging the public in caring for our land.
- The evaluation will provide valuable feedback to the Colorado Outdoor Stewardship Coalition including recommendations for how best to mobilize a diverse volunteer base to help meet the needs of public land management agencies. This interview process is one component of this evaluation—you may recall completing an online survey about land management needs. Data from this interview and from the surveys will be aggregated, analyzed, and reported to the Colorado Outdoor Stewardship Coalition. This evaluation will also collect information from volunteer stewardship organizations.
- Study participants were identified for this stage of the evaluation because of your experience and background as a land manager.

Today’s interview session is completely voluntary. You do not have to answer any questions that you do not feel comfortable answering. To make this interview meaningful to the project, we would like to ask you to provide honest responses and we are very interested in hearing specific stories that capture what you want to share.
The information that you provide will be kept strictly confidential and your responses will be combined with information from other participants so that you cannot be identified.

The recording will only be used by evaluation staff to ensure responses are accurately represented; the recording will be erased at the end of this project. Do you consent to being tape-recorded during this interview?

The interview will last for about one hour. Do you have any questions about the purpose of the study or why you were recommended to participate?

**INTERVIEW QUESTIONS**

*Introduction:*

1. Can you share describe your role at your agency?
2. Describe your primary land management responsibilities/activities.
   a. Probe: How long have you been in your position?
3. What geographic region are you responsible for?
   a. Probe: What type of land do you manage?
   b. Probe: How many visitors visit your land annually?
4. How many staff members do you oversee?
   a. Probe: How many of your staff are FTE, PTE, or Seasonal?

*Available resources/capacity to address land management priorities:*

5. When I asked about your primary land management responsibilities and activities, you identified (*share back areas of primary responsibility*). What resources are available to you to address the primary land management activities that you identified?
   a. Probe: Staff capacity (skill level, adequate staffing level)
   b. Probe: Adequate funding
   c. Probe: Adequate time
   d. Probe: Public support, political will from external sources, intra-organizational political will
   e. Probe: Partner/volunteer support
   f. Probe: Material resources/equipment
6. What additional resources, if any, would you need in order to complete all of the primary land management activities you are responsible for?
   a. Probe: Please describe these additional resources in terms of dollars, hours of work, numbers of staff members, or some other way that can help us quantify these needs.

*Priority land management needs and challenges:*

7. Describe some of the challenges you have encountered when conducting land management activities.
   a. Probe: What are the top challenges you experience?
8. What changes have you made or do you expect to make to address any gaps that you have?
We understand that volunteers involve different types of arrangements—for example, we know that Youth Corps volunteers may actually be contractors in the sense that land agencies may pay them for a crew by the week or are stipended, while other volunteers may come from a volunteer management agency, and still others come directly to your agency. I am now going to ask you some questions in regards to engaging volunteers and recreational users, particularly youth, and as we go through this section it may be helpful to think about how your responses may change when thinking about these different volunteering arrangements.

Volunteer/youth engagement:

9. Do you use volunteers to address land management needs?
   a. *(if no, use this probe, then skip to question #15)* Probe: Why not?
   b. *(if yes, start with this probe and continue)* Probe: Does this align with or differ from your agency’s outlook on engaging volunteers?
   c. Probe: To what extent do you have the capacity to manage volunteers?
   d. Probe: What support/resources/training do you feel you would need to effectively engage volunteers?

10. To what extent have you engaged volunteers/recreational users to address land management needs?
    a. Probe: What worked well?
    b. Probe: What could have worked better?

11. Do you typically work directly with individual volunteers/recreational users or through volunteer stewardship organizations? Describe your experience working with volunteer stewardship organizations.
    a. Probe: How do volunteers/recreational users learn about opportunities to work with you?
    b. Probe: What is your process for recruiting volunteers?

12. Why do you engage volunteers for land management needs?
    a. Probe: To what extent has volunteer engagement occurred because of budget or personnel shortages?
    b. Probe: To what extent has volunteer engagement occurred because of a desire for the public to be more involved with land use concerns?
    c. Probe: Can you describe how the reasons for engaging volunteers have changed over time, if at all?
    d. Probe: Does this align with or differ from your agency’s outlook on engaging volunteers?

13. How do you manage relationships between multiple stewardship groups that want to do work in your area?
    a. How can volunteer stewardship organizations better support land managers to effectively engage volunteers?

14. Do you have a sense for how overall numbers of volunteer hours have increased or decreased over the last three years?
    a. Do you have any ideas about why this is the case?
Volunteer/youth skill level:
15. What types of opportunities or roles are most popular with volunteers?
   a. Probe: To what extent do those opportunities address your land management priorities?
16. What skills do volunteers initially have when they come to help?
   a. Probe: What skills do they need in order to more effectively help with land management work?
   b. Probe: How do you learn about what skills or abilities volunteers have? (Is there some type of intake survey in use?)
17. To what extent does your agency have the capacity to help volunteers gain additional skills?
   a. Probe: In what ways could volunteer stewardship organizations support volunteer skill development?
18. To what extent does your agency engage young people? How do young people support your work?
19. Youth corps and other workforce development programs are often looking for employment in natural resources. What skills do you typically look for in entry level candidates for employment?

Now I am going to ask you some questions regarding partnerships, particularly in regards to partners that can potentially provide funding or other resources, such as donating materials or equipment, obtaining grants, etc. (Be prepared to probe individual vs. organizational efforts.)

Community Partners:
20. Do you rely on community partnerships for funding or other resources?
21. What community partners/resources—(such as funding, local business or organizational support, or organizations, foundations) are available to address or support land management issues?
   a. Probe: Why or why not?
   b. Probe: To what extent have you been able to make use of community partners/resources to fill gaps you are experiencing in terms of land management?
   c. Probe: What are the barriers to developing and nurturing opportunities with community partners/resources?
   d. Probe: What recommendations do you have for other land management agencies for how they can utilize community partners/resources?
   e. Probe: What do you see as the benefits of these community partnerships?
   f. Probe: What are some of the challenges you have encountered with community partners?

22. Are you able to partner with any nonprofit organizations to secure needed resources?
23. Are you able to partner with any local governmental organizations to secure needed resources?

24. Thinking about how much you have been able to leverage community partnerships and resources, has this changed the way you have conducted land management activities?

25. Do you get the sense that the public, whether local residents or visitors, support your management efforts?

Conclusion:

26. Do you have any final thoughts on utilizing volunteers and community partnerships?
   a. Probe: Do you have any last thoughts on how you can be better supported when using volunteers or community partnerships to carry out land management activities?

Thank you for your time! Your perspectives on land use and volunteer/community partner engagement will be very helpful for our evaluation efforts.
Qualitative Focus Group Guide for Volunteer Stewardship Organizations

EVALUATION OBJECTIVES

Thank you very much for taking time out of your day to participate in this focus group. Before we start, we want to give you a brief overview of the purpose of this project as well as request your consent to participate in and record the focus group.

- The Colorado Outdoor Stewardship Coalition and Volunteers for Outdoor Colorado are partnering with OMNI Institute, a Colorado-based nonprofit social science organization, to carry out a study to determine the gaps and capacities to care for public lands.
- The study will explore nuanced perspectives on public land management needs, the capacity of community resources to meet land management needs, and perceptions about more directly engaging the public in caring for our land.
- The evaluation will provide valuable feedback to the Colorado Outdoor Stewardship Coalition including recommendations for how best to mobilize a diverse volunteer base to help meet the needs of public land management agencies. This focus group is one component of the evaluation—you may recall completing an online survey. Data from this focus group and from the surveys will be aggregated, analyzed, and reported to the Colorado Outdoor Stewardship Coalition. This evaluation will compile information collected from public land managers that participated in interviews and an online survey.
- Study participants were identified for this stage of the evaluation because of your experience and background working with a volunteer stewardship organization.

Today’s focus group is completely voluntary. You do not have to answer any questions that you do not feel comfortable answering. To make this focus group meaningful to the project, we would like to ask you to provide honest responses and we are very interested in hearing specific stories that capture what you want to share.

The information that you provide will be kept strictly confidential and your responses will be combined with information from other participants so that you cannot be identified.

The recording will only be used by evaluation staff to ensure responses are accurately represented, the recording will be erased at the end of this project. Do you consent to being tape-recorded during this focus group?

The focus group will last for about an hour and a half. Do you have any questions about the purpose of the study or why you were recommended to participate?
FOCUS GROUP QUESTIONS

Introduction:
1. Can you share your name, organization and describe your role?
2. What types of volunteer opportunities does your organization offer?
   a. Probe: What kind of projects do your volunteers engage in?
3. How do volunteers learn about opportunities to work with your organization?
   a. Probe: Do volunteers tend to find you or do you put out a request for support?
4. When we spoke with public land managers earlier in this process, they indicated that volunteers have multiple points of entry into doing volunteer stewardship work. Why do volunteers work with your organization rather than working directly with a park or the statewide volunteer system?
   a. Probe: In what ways does your organization interact with the statewide volunteer system?
   b. Probe: Throughout this process, we have heard different perspectives about how different organizations and agencies support volunteer stewardship efforts to support public land management activities. What unique role does your organization play in that larger system? Who are the other organizations and agencies that make up that system? What are some of the gaps that exist in organizing/coordinating volunteer stewardship activities that could still be addressed?
   c. Probe: Social, like the outdoors, interest in gaining skills, ease of coordination etc.

Available resources/capacity to coordinate volunteers for projects addressing land management priorities:
5. What are some of the factors that affect the scale and number of projects you are able to take on in a given year?
   a. Probe: Volunteer Recruitment/Engagement
   b. Probe: Volunteer Training
   c. Probe: Staff capacity (within the volunteer stewardship organization)
   d. Probe: Adequate funding
   e. Probe: Relationships with parks, land managers etc.
   f. Probe: Materials/tools
   g. Probe: Vehicles/Transportation
6. What volunteer projects are the most challenging to carry out?
   a. Probe: Why?
   b. Probe: What types of projects are hard to fund?
   c. Probe: How have you overcome those challenges?
   d. Probe: Have you seen any variation around the challenges that you have experienced across different projects?
7. What additional resources, if any, would you need in order to coordinate all of the volunteer activities you are responsible for/would like to carry out?
8. What do you see as the biggest challenges to public land managers that can be addressed by volunteers?
a. Probe: To what extent is your organization able to have the impact you would like to see on public lands?

9. When we interviewed and surveyed public land managers earlier this summer, they most often spoke about budget and personnel shortfalls as barriers to being able to effectively carry out their work. They also mentioned the time and resource investment that was required when they engaged volunteers—some felt it was worth the investment, others did not. What are your thoughts on these challenges? How can they be addressed?

**Public land management organization/partner engagement:**

10. Please describe how public land management agency needs have changed in recent years, if at all. (i.e. flooding, wild fires, pine/spruce beetle, drought, budget shortfalls)
   a. Probe: How have these changes shaped or impacted the work that your organization does?

11. Please describe how you have been able to collaborate with public land managers to provide opportunities for volunteers/partners to support public land management?
    a. Probe: Describe your process of working with land managers.
    b. Probe: Do land managers tend to find you or do you put out a request for support?
    c. Probe: What challenges arose when working with public land management agencies?
    d. Probe: What barriers have come up in your work to try and support public land management agencies?
    e. Probe: What worked well?
    f. Probe: How does your organization familiarize itself with specific park needs/land management needs—specifically multi-use needs?

12. How would you describe a successful partnership with a public land management agency?
    a. Probe: How might volunteer stewardship organizations more effectively provide support to public land management agencies?
    b. Probe: How would you recommend improving coordination between volunteer stewardship organizations and public land management agencies?

13. What advice would you give other VSO about partnering with public land management agencies?
    a. Probe: Have you taken part in or learned of any interesting ways that land management agencies have effectively engaged volunteers/partners?
    b. Probe: What recommendations do you have for public land management agencies for how they could best utilize volunteers?

14. Can you describe any opportunities you have to partner with other volunteer stewardship organizations?
    a. Probe: To what extent are volunteer stewardship organizations willing to coordinate their work, particularly if they have diverse interests?
    b. Probe: What have you gained from collaborating with other volunteer stewardship organizations?
    c. Probe: What are some of the challenges that arose when partnering with other volunteer stewardship organizations?
Volunteer skills and training:
15. What skills do volunteers typically have when they are initially recruited by your organization?
   a. Probe: How do you learn about what skills or abilities volunteers have (intake survey)?
   b. Probe: What skills do they need in order to more effectively help with public land management work?
   c. Probe: What types of volunteer skillsets would you like to be able to attract in the future?
16. What trainings do you offer volunteers or what trainings do your volunteers tend to take advantage of?
   a. Probe: What training needs have you identified that your organization, or other organizations, have not been able to meet?
   b. Probe: What recommendations do you have for improving the training opportunities that are available to volunteers?
   c. Probe (frequency, content, location etc)
17. To what extent has the lack of technical skills among volunteers been a concern or issue?
   a. Probe: Can you describe a situation when the lack of technical skills has been a concern or issue?
   b. Probe: Can you describe a situation when volunteer technical skills have been helpful?

Volunteer engagement information:
18. What are the things that help volunteers have a successful/meaningful experience working on public land management projects?
19. Describe some of the successes and challenges you have had with maintaining volunteer interest in your organization or volunteer stewardship activities in general?
   a. Probe: Have you experienced any fluctuation in your volunteer base?
   b. Probe: Has this changed over time?

Volunteer stewardship organizations and public messaging:
20. What information could be shared with the larger public (i.e., users of public lands) that might help increase volunteer stewardship?
   a. Probe: In what ways would you tailor that information or outreach plan to reach a broader, more diverse public?
   b. Probe: How has your organization worked to expand the outdoor volunteer labor force you work with?

Conclusion:
21. Do you have any final thoughts on utilizing volunteers to address public land management needs?
   a. Probe: Do you have any last thoughts on how you can be better supported when partnering with land managers?

Thank you for your time!
Appendix B: Online Survey Instruments

Public Land Manager Survey

The Colorado Outdoor Stewardship Coalition and Volunteers for Outdoor Colorado are partnering with OMNI Institute, a Colorado-based nonprofit social science organization, to carry out a study to determine the gaps and capacities to care for public lands. The study will explore nuanced perspectives on public land management needs, the capacity of community resources to meet land management needs, and perceptions about more directly engaging the public in caring for our land.

This survey will inform a broad-level understanding about resources for addressing public land management. This survey is one component of the gaps and capacity evaluation, which will include information collected from both public land managers and volunteer stewardship organizations via surveys, interviews and focus groups. The resulting data will be aggregated, analyzed, and reported to the Colorado Outdoor Stewardship Coalition. The evaluation will provide valuable feedback to the Colorado Outdoor Stewardship Coalition including recommendations for how best to mobilize a diverse volunteer base to help meet the needs of public land management agencies.

The survey will take about 30 minutes of your time. If you are unsure of any answer, make your best guess. Your confidential responses will be combined with responses from other participants from across the state, and will not be linked to you personally. We thank you for your time and willingness to participate in this evaluation and look forward to learning about your agency. If you have any questions, please contact Emily Love at elove@omni.org or 303.839.9422x112.
INTRODUCTORY QUESTIONS

1. Name

2. Title

3. Agency/Department Name

4. Please indicate where you primarily work:
   - Agency headquarters
   - Agency field office

5. Please indicate what you manage:
   - Administrative/Programs
   - Land
   - Both

6. Email Address

7. Phone Number

8. What program area do you spend the majority of your time on?

Note: Please answer all survey questions in reference to the program you spend the majority of your time on and your level of responsibility on that program.

LAND MANAGEMENT PRIORITIES

9. Land management agencies must balance and prioritize their resources, which can sometimes result in gaps (between what you have the capacity to do and what you need to do) across various work areas. Thinking across the work areas for your organization or primary program area, please rate the degree of the gap for each area listed below:

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<th>Area</th>
<th>No Gap</th>
<th>Small Gap</th>
<th>Moderate Gap</th>
<th>Substantial Gap</th>
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<th>Do Not Know</th>
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<tr>
<td>Visitor services</td>
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<tr>
<td>Environmental education</td>
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<tr>
<td>Safety and enforcement</td>
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<tr>
<td>Other</td>
<td></td>
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</tr>
</tbody>
</table>
10. Please indicate the degree to which you find the issues below challenging for your agency:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Not at all challenging</th>
<th>Slightly challenging</th>
<th>Somewhat challenging</th>
<th>Moderately challenging</th>
<th>Extremely challenging</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination/cooperation with other agencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to serve a growing population</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Adapting to changing user demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintaining existing recreation infrastructure or resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning capacity</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEPA process</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Managing public comment on issues</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Staff training for public management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Conflicts among user groups</td>
<td></td>
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</tr>
<tr>
<td>Public damage of resources (dogs, travel, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-leash dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to manage volunteers/partnerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public education of resource use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protecting unique species and ecosystems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive species management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grassland/range management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riparian/fisheries management</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
AGENCY RESOURCES

11. In relation to the primary program area you identified you work in, please characterize your funding trends over the past 5 years:

- Decreased Significantly
- Decreased Moderately
- No Change
- Increased Moderately
- Increased Significantly

12. How predictable have your annual budgets been?

- Very Unpredictable
- Somewhat Unpredictable
- Somewhat Predictable
- Very Predictable

13. Over the last five years, please choose the option that best describes your staffing levels:

<table>
<thead>
<tr>
<th>Wildlife management</th>
<th>Significantly Decreased</th>
<th>Moderately Decreased</th>
<th>Did Not Change At All</th>
<th>Moderately Increased</th>
<th>Significantly Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water availability/conservation</th>
<th>Significantly Decreased</th>
<th>Moderately Decreased</th>
<th>Did Not Change At All</th>
<th>Moderately Increased</th>
<th>Significantly Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Law enforcement needs</th>
<th>Significantly Decreased</th>
<th>Moderately Decreased</th>
<th>Did Not Change At All</th>
<th>Moderately Increased</th>
<th>Significantly Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. Please indicate the number of individuals that currently work at your site/department and the number employed 5 years ago:

<table>
<thead>
<tr>
<th></th>
<th>Number of Individuals Currently</th>
<th>Number of Individuals Employed 5 Years Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seasonal Employees/Interns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteers/Partners</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Please describe the factors that may have contributed to changes in staffing levels:

16. Please indicate the number of additional individuals, if any, that you would require to fully meet your required tasks/functions in the next year. Please write 0 if you have adequate staffing to meet your departmental or agency needs.

<table>
<thead>
<tr>
<th></th>
<th>Additional Individuals Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Employees</td>
<td></td>
</tr>
<tr>
<td>Part-time Employees</td>
<td></td>
</tr>
<tr>
<td>Seasonal Employees/Interns</td>
<td></td>
</tr>
<tr>
<td>Volunteers</td>
<td></td>
</tr>
</tbody>
</table>

17. Is your agency able to attract the people with the necessary skills to meet your land management needs?
   - Yes
   - No

18. If no, why not?
COMMUNITY ENGAGEMENT

19. How much do you rely on the organizations or businesses you partner with to contribute (time, funding, materials) to your land management work?

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Not At All</th>
<th>A Little Bit</th>
<th>Somewhat</th>
<th>A Good Amount</th>
<th>Substantially</th>
<th>Do Not Engage With</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stewardship volunteer organizations (e.g. VOC, Friends of the Dillon Ranger District, Roaring Forks Outdoor Volunteers)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Recreational user groups (e.g. mountain biking clubs, ATV clubs)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Corporate partners (e.g. REI, Xcel Energy, Mountainsmith, Patagonia, Vail Resorts)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other government agencies</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Local schools</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Community funders</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>In-kind partnerships</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other community organizations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Individual volunteers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
20. How often does your agency utilize the following community resources to support land management work?

<table>
<thead>
<tr>
<th>Resource</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Always</th>
<th>This Resource is Not Available</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td></td>
<td></td>
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<tr>
<td>Media</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-kind donations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
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</tr>
</tbody>
</table>

21. What are the barriers you have encountered in accessing those community resources?

22. Do volunteers assist your agency in providing any of the following?

<table>
<thead>
<tr>
<th>Service</th>
<th>Yes</th>
<th>No</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance or Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpretive, Outdoor or Environmental Education Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Management/Stewardship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. Please indicate your agency's level of agreement with the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is required to use volunteers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has had positive experiences using volunteers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is interested in increasing our utilization of volunteers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not have the staff capacity to work with volunteers</td>
<td></td>
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</tr>
</tbody>
</table>
Volunteer Stewardship Organization Survey

The Colorado Outdoor Stewardship Coalition and Volunteers for Outdoor Colorado are partnering with OMNI Institute, a Colorado-based nonprofit social science organization, to carry out a study to determine the gaps and capacities to care for public lands. The study will explore nuanced perspectives on public land management needs, the capacity of community resources to meet land management needs, and perceptions about more directly engaging the public in caring for our land.

This survey will inform a broad-level understanding about volunteer resources for addressing public land management. This survey is one component of the gaps and capacity evaluation, which will include information collected from both public land managers and volunteer stewardship organizations via surveys and focus groups. The resulting data will be aggregated, analyzed, and reported to the Colorado Outdoor Stewardship Coalition. The evaluation will provide valuable feedback to the Colorado Outdoor Stewardship Coalition including recommendations for how best to mobilize a diverse volunteer base to help meet the needs of public land management agencies.

The survey will take about 30 minutes of your time. If you are unsure of any answer, make your best guess. Your confidential responses will be combined with responses from other participants from across the state, and will not be linked to you personally. We thank you for your time and willingness to participate in this evaluation and look forward to learning about your organization. If you have any questions, please contact Emily Love at elove@omni.org or 303.839.9422x112.
INTRODUCTORY QUESTIONS

1. Name

2. Title/ Role

3. Name of your organization

4. Have you participated or been asked to participate in a focus group for this gaps and capacity assessment?
   - Yes
   - No

5. Please estimate the percentage of your volunteer projects that take place in each geographic region of the state.
   - **Northwest Region** - The Northwest Region is comprised of 10 counties: Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Pitkin, Rio Blanco, Routt, and Summit.
   - **South Central Region** - The South Central Region consists of 13 counties: Alamosa, Chaffee, Conejos, Costilla, Custer, El Paso, Fremont, Lake, Mineral, Park, Rio Grande, Saguache, and Teller.
   - **Southeast Region** - The Southeast Region consists of 9 counties: Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, Prowers, and Pueblo.
   - **Southwest Region** - The Southwest Region consists of 11 counties: Archuleta, Delta, Dolores, Gunnison, Hinsdale, La Plata, Montezuma, Montrose, Ouray, San Juan, and San Miguel.

6. Approximately how many unique (unduplicated) volunteers actively work with your organization each year? ______

7. Approximately how many volunteer hours are contributed to your organization each year?

8. What percent of the volunteers that work with your organization lead other volunteers? ____%

9. Please estimate the percentage of volunteers that are recruited from each geographic region of the state. (total should equal 100%)
- **Northwest Region**: The Northwest Region is comprised of 10 counties: Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Pitkin, Rio Blanco, Routt, and Summit.
- **South Central Region**: The South Central Region consists of 13 counties: Alamosa, Chaffee, Conejos, Costilla, Custer, El Paso, Fremont, Lake, Mineral, Park, Rio Grande, Saguache, and Teller.
- **Southeast Region**: The Southeast Region consists of 9 counties: Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, Prowers, and Pueblo.
- **Southwest Region**: The Southwest Region consists of 11 counties: Archuleta, Delta, Dolores, Gunnison, Hinsdale, La Plata, Montezuma, Montrose, Ouray, San Juan, and San Miguel.

10. What types of volunteer opportunities does your organization typically offer? (Please check all that apply).
   - Visitor services
   - Trail work
   - Maintenance or construction
   - Interpretive, outdoor or environmental education programs
   - Resource management/stewardship
   - Project coordination and planning
   - Fundraising
   - Administrative or marketing support
   - Other, please describe______________

11. Please estimate what percentage of your volunteer opportunities fall into each of the following categories (total should equal 100%)
   - Less than 4 hours, one time events
   - 4-8 hours, one time events
   - Full day, one time events
   - 2 day, one time events
   - Weeklong, one time events
   - Short-term Commitment – require a 4-6 week commitment
   - Long-term Commitment – Require longer term commitments from six months to a year

12. Please estimate the percentage of your volunteers that participate in each of the following types of projects (total should equal 100%):  
   - Less than 4 hours
   - 4-8 hours
   - Full day
   - 2 day
   - Weeklong
Short-term Commitment – require a 4-6 week commitment
Long-term Commitment – Require longer term commitments from six months to a year

13. What volunteer supports or incentives do you offer? (Please check all that apply)
   - Car pooling
   - Adventure/vacation experiences
   - Skill building or vocational training
   - Cash/stipends/scholarship opportunities
   - Paid Internships
   - Unpaid internships
   - Opportunities to advance to an employed position within your organization or a partner organization
   - Other training programs
   - Schwag/gifts
   - Social/networking opportunities
   - Food and drink

14. Please describe the types of trainings that your organization provides to volunteers.

15. Do other organizations or agencies provide trainings to your volunteers?
   - Yes (skip to 15a)
   - No (skip to 16)

15a. Please list the organizations or agencies that provide trainings to your volunteers.

16. Please describe any unmet volunteer training needs you have identified:

17. Please choose the option that best describes your volunteer participation numbers over the last five years.
   - Significantly Decreased
   - Moderately Decreased
   - Did Not Change
   - Moderately Increased
   - Significantly Increased

LAND MANAGERS’ UTILIZATION OF VOLUNTEERS

18. Which land management or government agencies do you partner with to help address land management needs? (Please check all that apply).
   - US Forest Service (USFS)
   - Bureau of Land Management (BLM)
   - National Park Service
   - US Bureau of Reclamation (BOR) or the US Army Corps of Engineers (USACE)
- US Fish and Wildlife
- Other federal agencies
- Colorado Parks and Wildlife (CPW)
- Colorado State Forest Service
- State Land Board
- Other state agencies
- Municipal (city or county) government
- Land trusts
- Non-profit conservation organization
- Other, please specify __________

19. Overall, how well do public land managers and agencies support volunteer activities? Please rate your level of agreement with the following statements.

<table>
<thead>
<tr>
<th>Public land managers and agencies....</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>collaborate well with our organization on their volunteer needs</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>clearly describe their project needs</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>participate in volunteer project planning</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>provide team or crew leaders with adequate support during volunteer projects</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>utilize available volunteers well to meet the goals of the project</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>have the financial resources to collaborate effectively with volunteer stewardship organizations.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>have the human resources to collaborate effectively with</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Public land managers and agencies....</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>--------------------------------------</td>
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</tr>
<tr>
<td>volunteer stewardship organizations.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>offset all or a portion of our organization's costs (through agreements or contracts)</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>need more information on collaborating with volunteer stewardship organizations</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

19a. [For participants who indicate 'Agree' or 'Strongly Agree' to “Public land managers and agencies need more information on collaborating with volunteer stewardship organizations”] Please identify the public land management agencies that may need additional information on collaborating with volunteer stewardship organizations:

20. Approximately how many volunteer projects do you collaborate on with public land managers in a given year?

21. Please estimate the percentage of projects with the following numbers of volunteers (total should equal 100%):
   - Less than 10 volunteers
   - 10-50 volunteers
   - 51-100 volunteers
   - 101-250 volunteers
   - More than 250 volunteers

22. Over the last five years, please choose the option that best describes your organization's level of collaboration/partnership with public land managers.
   - Significantly Decreased
   - Moderately Decreased
   - No Change
   - Moderately Increased
   - Significantly Increased
23. Please rank the top five projects your volunteers most like to do (1 being most preferred).

<table>
<thead>
<tr>
<th>Projects</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Management Projects</td>
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<td>Trail construction/maintenance</td>
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<td>Trail monitoring/inventors</td>
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<tr>
<td>Facility construction/maintenance</td>
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<td>Maintain equipment (tractors, construction equipment)</td>
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<td>Wildlife management</td>
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<td>Habitat restoration</td>
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<td>Invasive species - terrestrial</td>
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<td>Invasive species - aquatic</td>
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<td>Erosion control</td>
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<td>Water quantity/quality</td>
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<td>Fire restoration</td>
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<td>Fire mitigation/hazard reduction</td>
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<td>Land acquisition</td>
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<td>Cultural and heritage preservation</td>
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<td>Visitor services</td>
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<tr>
<td>Environmental education</td>
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24. Please rank the top five land management projects that your organization most frequently supports (1 being most frequent).

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<tr>
<th>Land Management Projects</th>
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<tr>
<td>Trail construction/maintenance</td>
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<td>Trail monitoring/inventors</td>
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<td>Facility construction/maintenance</td>
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<td>Maintenance equipment (tractors, construction equipment)</td>
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<td>Wildlife management</td>
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<td>Habitat restoration</td>
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<td>Invasive species - terrestrial</td>
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<td>Invasive species - aquatic</td>
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<tr>
<td>Erosion control</td>
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<td>Water quantity/quality</td>
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<td>Fire restoration</td>
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<tr>
<td>Fire mitigation/hazard reduction</td>
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<tr>
<td>Land acquisition</td>
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</tbody>
</table>
### Cultural and heritage preservation

### Visitor services

### Environmental education

### Safety and enforcement

### Other, describe ________

---

### CHALLENGES FOR VOLUNTEER STEWARDSHIP ORGANIZATIONS

25. Below is a list of land management tasks. Please indicate the level of capacity your organization has to support or provide volunteers for each type of land management need.

<table>
<thead>
<tr>
<th>Land Management Tasks</th>
<th>No Capacity</th>
<th>Low Capacity</th>
<th>Medium Capacity</th>
<th>High Capacity</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trail construction/maintenance</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>Trail monitoring/inventors</td>
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<tr>
<td>Facility construction/maintenance</td>
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<td>Maintenance equipment (tractors, construction equipment)</td>
<td>O</td>
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<tr>
<td>Wildlife management</td>
<td>O</td>
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<td>O</td>
<td>O</td>
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<tr>
<td>Habitat restoration</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>Invasive species - terrestrial</td>
<td>O</td>
<td>O</td>
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<tr>
<td>Invasive species - aquatic</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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</tbody>
</table>
26. For each Land Management Task that was ranked as “no capacity” or “low capacity”. Please describe the most significant challenges to supporting this land management need. Select One.
   o Lack of volunteer interest in this type of stewardship
   o Insufficient number of volunteers
   o Lack of volunteer leaders
   o Lack of skills of recruited and trained volunteers
   o Lack of resources to train volunteers
   o Lack of staff resources or infrastructure
   o Lack of trained staff
   o Land manager does not support/does not want to do
   o Lack of collaboration with land management organizations
   o Limited or no funding for this type of land management work
   o Other issue, please describe
27. Volunteer organizations report many issues in mobilizing the public, managing volunteers, and coordinating with partners. Please indicate your level of agreement with each statement below.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Not Applicable</th>
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<tbody>
<tr>
<td><strong>Our Organization...</strong></td>
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<tr>
<td>has enough funding to meet our needs.</td>
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<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>has sufficient equipment to meet our needs (tools, computers, materials).</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>has enough staff to meet our needs.</td>
<td>O</td>
<td>O</td>
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<tr>
<td>has sufficient training resources for staff.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>has a sufficient number of volunteers to accomplish our work.</td>
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<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>has enough <strong>skilled</strong> volunteers to accomplish our work.</td>
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<td>O</td>
<td>O</td>
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<tr>
<td>has a sufficient number of <em>long-term/repeat</em> volunteers.</td>
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<tr>
<td>struggles with volunteer absenteeism (i.e., volunteers failing to show up for planned work).</td>
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<tr>
<td>has sufficient training resources for volunteers.</td>
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<td>provides incentives to volunteers.</td>
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<td>has sufficient processes in place to manage errors made by volunteers.</td>
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<td>regularly collects data on volunteers’ experiences.</td>
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<tr>
<td>has challenges coordinating work with land management organizations</td>
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<td></td>
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<tr>
<td>regularly conducts outreach efforts</td>
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</tbody>
</table>
28. Do you anticipate that you will need additional individuals (employees and/or volunteers) to meet the requests of land managers in the next year?
   - Yes (skip to 27a.)
   - No (skip to 28)
   - Unable to determine (skip to 28)

29. Please estimate the number of additional individuals (employees and/or volunteers), if any, that you would require to meet the requests of land managers in the next year. Please write 0 if you have adequate staffing to meet your agency needs.
   - Additional Individuals Needed ____________
   - Full-time Employees ____________
   - Part-time Employees ____________
FINAL THOUGHTS

30. Based on your experience, what would motivate more volunteers to engage in stewardship on our public lands?

31. What are the top three characteristics of an effective volunteer stewardship organization in Colorado?

32. What recommendations do you have for land management agencies for how they can better utilize volunteers?

33. Would you be interested in learning more about the Colorado Outdoor Stewardship Coalition?
   a. Yes
   b. No
   c. I already have information

34. Would you be interested in being a member of the Colorado Outdoor Stewardship Coalition?
   a. Yes
   b. No
   c. I already have information

35. You have indicated that you are interested in either learning more about or being a member of the Colorado Outdoor Stewardship Coalition. Please provide your contact information.
   a. Phone #: _________________________
   b. Email Address: _____________________
Appendix C: Stakeholder Meeting Summary

GAPS AND CAPACITY ASSESSMENT

Date: January 16, 2013
Sponsored by: The Colorado Outdoor Stewardship Coalition

Locations:
- Forest Service Regional Office, Golden (in-person)
- Grand Mesa Uncompahgre and Gunnison National Forest Office, Delta (video teleconference);
- Forest Service Salida Ranger District, Salida (video teleconference); and
- Pike and San Isabel National Forest Cimarron and Comanche National Grasslands Office, Pueblo (video teleconference).

BACKGROUND AND OBJECTIVES

On January 16, 2014, Meridian Institute facilitated an afternoon meeting to discuss a draft evaluation report entitled *Caring for Colorado Public Lands: A Gaps and Capacity Assessment to Inform Partnerships between Public Land Management Agencies and Volunteer Stewardship Organizations*. The session was an opportunity to review key findings from OMNI Institute’s research with a diverse group of people from public land management agencies, outdoor recreational groups, volunteer organizations, youth and conservation corps, philanthropic organizations, and individual volunteers. The meeting provided opportunities for individuals to participate in-person or remotely from Salida, Glenwood Springs, and Pueblo through video-conferencing capabilities. A total of 46 individuals took part in the session. Specific objectives of the meeting were to:

- Refine the preliminary recommendations that were developed in response to OMNI’s gaps and capacity assessment; and
- Discuss strategies for disseminating the assessment results and implementing the recommendations.
This summary documents key discussion points, focusing primarily on the group's recommendations for addressing some of the challenges and findings identified in the evaluation report.

MEETING SUMMARY

Introduction
Jason Robertson, Deputy Director for Recreation, Land and Minerals at the US Forest Service Rocky Mountain Regional Office, welcomed participants and emphasized the importance of volunteer stewardship on public lands, particularly with the new budget realities facing public land managers.

Emily Love, OMNI Institute, presented an overview of the study. This included outlining the objectives, a brief summary of the methods, a summary of the geographic representation of respondents, an overview of the key findings, and some draft recommendations. As part of the research, OMNI administered web-enabled surveys and conducted focus groups and interviews with a diverse groups of public land managers and volunteer stewardship organizations from both statewide and local organizations. The goal of the research was to better understand gaps in public land management and trends in the capacity of volunteer stewardship organizations to address those gaps. OMNI shared draft recommendations, emphasizing that the meeting was intended to create a forum for participants to further refine and develop a set of actionable recommendations for public land managers and volunteer stewardship organizations.

Meeting participants had the opportunity to react to the findings, ask questions of OMNI Institute, and build upon the draft recommendations as a large group. Then, participants broke into small groups to further refine the recommendations. For participants at the in-person meeting in Golden, these were organized around three themes: 1) public land manager capacity and culture; 2) volunteer recruitment and participation; and 3) volunteer stewardship organization roles and coordination. Additionally, participants at each of the remote locations, Salida, Glenwood Springs, and Pueblo discussed the draft recommendations that they identified as relevant and important.

RECOMMENDATIONS FROM THE DISCUSSION

Below is a summary of the recommendations discussed, organized by key themes that emerged during the session. Throughout the meeting participants shared comments and recommendations focused on the OMNI research report—these have been documented and incorporated into the final version of the report where possible.
Enhancing Partnerships

Meeting participants reflected on opportunities for PLM and VSOs to forge meaningful, long term partnerships that are mutually beneficial. A number of specific challenges were identified, along with specific recommendations.

PLM contracts and partnership agreements with VSOs tend to be cumbersome and restrictive, and often prevent effective partnerships. Additionally, there is a concern that public land management agencies approach VSOs as contractors instead of partners, which results in comparing bids for project work and subsequently results in a competitive environment amongst VSOs. This model also requires a lot of work and capacity on part of the VSOs. Some specific recommendations include:

- Programmatic funding should be considered over project-specific funding; it provides VSOs with additional flexibility and the ability to invest in their own capacity. This is especially important when unforeseen circumstances (i.e., floods, fires) result in last minute project changes or cancellations. These funds can also support projects viewed as less appealing to volunteers, (non-recreation, for example); VSO engagement in PLM planning processes; and partnerships between larger, state-wide VSOs and local volunteer groups.
- Utilize regional agreements to assist with the difficulties of contracting. In some federal agencies, such as the Forest Service and BLM, contracts at the regional office require the same amount of work as contracts at the local office; however, regional level contracts often have more flexibility.
- Many contracts require matched funds. There should be flexibility with this requirement, where possible.
- When possible, consider Memorandums of Understanding (MOUs) to replace other types of agreements because they are more flexible.
- Develop a “tool kit” or other mechanism for sharing contracting “best practices” between agencies and organizations. For example, many VSOs prefer the flexibility of the BLM agreement because it is long term, has a large funding cap, and can accommodate project-level changes. This contracting template could be shared with other agencies.
- Consider trainings or other mechanisms for helping contract and agreement staff at public land management agencies to better understand the nuances of the relationship between VSOs and PLMs.
Historically, agencies have not typically involved VSOs in their internal planning processes. As a result, VSOs operate in a reactive mode and are often challenged to respond to project needs that arise with short time-frames.

- PLMs and VSOs could both benefit by more strategic engagement of VSOs in up-front agency planning. However, the ability for VSOs to participate in this kind of activity requires funding not directly tied to projects.
- Some VSOs have provided volunteer coordination to PLMs through the services of a dedicated volunteer coordinator. This model could potentially be expanded.

**Public Land Manager Capacity and Culture**

Participants discussed some of the challenges within public land management agencies to fully utilize partnerships with VSOs. Several agencies historically used internal crews to accomplish many of the tasks that now can be completed through volunteer partnerships. Additionally, partnerships with VSOs can be challenging because of perceptions about quality of work and conflicting goals.

PLMs are critical for successful volunteer stewardship and need to play a leadership role. Strong leadership from the high levels of an agency can be helpful to the overall organizational culture towards volunteers. However, in many instances local “champions” ultimately determine the effectiveness of and enthusiasm for agency-VSO partnerships and volunteers. To assist with these issues, the following recommendations were discussed:

- Leadership within public land management agencies needs to prioritize partnerships.
- Incorporate metrics, particularly in PLMs in leadership roles, for partnerships and volunteer engagement into agency performance review processes.
- Incorporate volunteer funding into the budget through cost-shares or funding set-asides.
- Build awareness of the value of volunteerism at the regional level, rather than relying on individual “champions” at each office.
- Capture the value of volunteers, in financial savings, to help build support volunteer stewardship.
- Success begets success: A good initial project completed through a partnership with a VSO can lead to more. PLMs need to share information on successful projects that utilized volunteers to encourage future projects.
- PLM budgets need to include resources for volunteer management.
PLMs are often lacking the means to demonstrate volunteer appreciation because of restriction on purchasing appreciation gifts. Several specific recommendations could be considered, including:

- Partnering with a “friends” group that can provide volunteers with small appreciation gifts.
- Consider non-material gifts, such as public recognition in the form of thank you ads or videos.
- PLMs should consider hiring volunteers as paid staff when jobs become available.
- Free park passes could be a good incentive. This is currently only available to volunteers who make a substantial contribution, but one day passes could be an incentive for short-term volunteers.

A large amount of volunteer projects are recreation-oriented, which creates a disproportionately large burden on PLM recreation staff.

- PLMs could look for opportunities to engage staff and utilize volunteers in other departments, where appropriate.

**Volunteer Recruitment and Management**

Although many individuals expressed that recruiting more volunteers wasn’t their biggest challenge, many felt that identifying volunteers with specific skills, greater diversity of volunteers, and engaging younger volunteers were important for improving volunteer stewardship. To address this, the following recommendations were discussed:

- Volunteer events could emphasize opportunities for community building, connecting volunteer opportunities with participant’s daily lives and communities, and emphasizing opportunities for career and skill development.
- Engaging young adults in volunteer stewardship poses new challenges. Possible approaches could include providing mentorship opportunities, utilizing peer-to-peer engagement through social media, offer leadership training, and seeking feedback from volunteers to facilitate mutual learning.
- Additional information on volunteer patterns and motivations among young adults (“millennials”) could be useful to VSOs and PLMs considering strategies for engagement.
- VSOs and PLMs both could increase links to existing and potential environmental education efforts.

Participants also discussed the challenge of an increasing number of episodic (one-time) volunteers. There is a need for both large numbers of episodic volunteers and longer-term volunteers who become leaders. Currently, VSOs find it easier to engage individuals and groups in
one-time activities, while it is increasingly challenging to engage long-term volunteers. The long-term leadership and specific skill-sets (such as chainsaw training or knowledge of trail building techniques) make them an important linchpin to supporting public land management.

- Where feasible, VSOs can hire a field coordinator or other trained staff person with some of the on-the-ground skills that VSOs previously relied on long-term volunteers for.
- Youth Corps can also be useful in addressing management needs which require training or skills beyond those of episodic volunteers.
- VSOs and PLMS could use targeted outreach to recruit volunteers with the necessary skills that are in-line with project goals, rather than providing extensive trainings.
- There may be a need to rethink communication to potential long-term volunteers. Specifically, redefine ‘long-term involvement’ to avoid the pressures associated with long-term commitments. VSOs could look for commitment for these leadership roles on an annual basis, or even based on a certain number of projects completed.
- Some of the state-wide, larger VSOs are effective at recruiting episodic volunteers. They could potentially play a role in connecting volunteers who desire longer-term involvement with local, place-based organizations that may be better poised to utilize long-term volunteers. Additionally, they could help volunteers discover lesser-known locations and opportunities to volunteer.

Volunteer Stewardships Roles

There is a diverse range of VSOs across Colorado fulfilling many different roles, such as volunteer recruitment, training, on-the-ground supervision, marketing, fundraising, VSO-agency communications, project identification and design, documentation of best practices, and occupying a variety of niches in different regions of the State. It could be more efficient, cost-effective, and mutually beneficial for VSOs to strategically coordinate and plan to address the stewardship needs of each region and to help reduce the transaction costs associated with PLMs dealing with multiple VSOs. It is unrealistic to expect every VSO in the state to "do it all" with the same business model. Additionally, defining niches could potentially offer a market advantage to some VSOs, as well as being attractive to funders. There are currently informal ways in which VSOs differentiate their roles, but coordination is lacking. Some ideas for improved coordination include:

- Regional meetings could provide an opportunity for communication between VSOs and PLMs. These would provide opportunities to learn about organizations, minimize duplication, allow the public to learn about local volunteer opportunities, coordinate scheduling among
groups to reduce competition during busy summer months, and provide an opportunity for PLMs to recognize and appreciate volunteer work. The Colorado Outdoor Stewardship Coalition (COSC) could help organize such meetings.

- An annual statewide summit could offer some of these same benefits described above.
- Existing VSOs could “mentor” new VSOs. Smaller organizations could also host leaders from other organizations/corporations to introduce them to opportunities in more remote or rural areas.
- The larger VSOs could support smaller groups with specific activities, such as recruiting volunteers through partnership projects, providing grant-writing services, and tying smaller group projects into corporate funding proposals as seed money.
- Some of the larger/statewide organizations could set up subset offices/groups in more remote locations to support the local organizations or supplement where there may not be any.

**Trainings**

The group indicated that trainings could be an important tool for enhancing partnerships and strengthening capacity amongst VSOs and PLMs. Specific recommendations include:

- Conduct trainings for PLMs, including volunteer recruitment and management. Specific trainings for PLMs could help them better understand different approaches for working with various types of VSOs, (i.e., smaller place-based groups and larger state-wide VSOs), individual volunteers, multiple generations of volunteers, and diverse volunteer populations.
- In some cases VSO staff would benefit from additional training on non-profit management, partnering with public land management agencies, volunteer management, and other topics. This is particularly the case in smaller, place-based organizations lacking paid staff and/or limited background to supports all of the required activities.
- Standardized training for volunteers, which are vetted by PLMs, such as the Outdoor Stewardship Institute, can better support PLM-VSO partnerships because PLMs can rely on volunteers to have a standard set of skills required to provide high quality outcomes.
Appendix D: Additional Stakeholder Reflection

In addition to refining the recommendations as outlined in the full report, stakeholders participating in the video teleconferenced meeting also had the opportunity to identify other areas of concern or interest that were not surfaced through assessment activities or that did not receive sufficient attention. This section focuses on those areas that dominated group discussion and suggestions that might be of particular interest to the Colorado Outdoor Stewardship Coalition.

VSOs as Providers of Environmental Education

Meeting participants suggested that there was a need to draw greater attention to the vital role that VSOs play in the provision of environmental education. Educational institutions do not necessarily have the resources to offer environmental education and have come to rely on VSOs as a means to offer young people opportunities to engage with and learn about public lands. Participants specifically desired statewide data to better understand the extent to which VSOs are working with schools in this capacity.

Further, meeting participants recognized the mutually beneficial relationship that they have with schools: VSOs provide great benefits to young people by offering outdoor educational opportunities and programming through schools; this oftentimes provides an individual’s initial exposure to environmental studies and to organizations promoting outdoor stewardship, in turn, this initial experience through schools can lead to lifelong stewardship behaviors. Findings described in the report shared participant views on the important role that environmental education can play in not only exposing young people to volunteerism but also in fostering a responsibility to be involved and act. In addition, VSOs and PLMs reported recruiting volunteers from school-based populations. Thus, schools appear to be an important institution to engage in recognizing the value of environmental education.

As VSOs continue to think creatively about funding models, strategically publicizing environmental education efforts may open different opportunities for funding (e.g., school-based funding, private foundations, individual donors), as assessment participants shared that many PLM agencies do not fund environmental education.

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5 A complete meeting summary is provided in Appendix C.
VSOs as Cultivators of Outdoor Volunteer Stewards

VSOs are uniquely positioned to foster environmental stewards in Colorado. The diverse range of VSOs engage a broad spectrum of volunteers, collectively helping to strengthen the volunteer workforce supporting public land management activities. While meeting participants recognized specific successes related to how VSOs are effectively engaging new volunteers through avenues such as corporate partnerships and school programming, a significant amount of time was spent discussing how to recruit and retain young people and diverse communities.

ENGAGING YOUNG PEOPLE AND DIVERSE POPULATIONS IN VOLUNTEER STEWARDSHIP OF THE OUTDOORS

VSOs participating in the assessment frequently mentioned the over-representation of our elder or senior population in environmental volunteering. The unique benefit of having an aging environmental volunteer base is that there is an opportunity to pass along a legacy, extensive knowledge and passion for environmental advocacy. Importantly, senior volunteers must embrace this opportunity to engage the next generation of stewards specifically through intergenerational and mentoring programs. Youth corps also play a critical role in encouraging youth and young adults to be lifelong stewards of public lands and meeting participants highlighted the fact that Colorado has significant infrastructure in place to support the ongoing involvement of youth corps members in public land management activities.

While there was some discussion and concern about youth motivations to engage in volunteer stewardship, meeting participants described highly successful approaches to engaging youth particularly through connecting volunteer opportunities with the lives and concerns of young people and emphasizing opportunities for skill development.

Engaging diverse populations was also an important issue discussed by meeting participants. As Colorado’s population continues to become more diverse, the vitality of public lands will increasingly depend on engaging a broad spectrum of volunteers. Participants emphasized the need to be familiar with community demographics and intentionally design recruitment strategies that target underrepresented groups. VSOs can tailor volunteer opportunities to community preferences through initiating conversations with community stakeholders to learn more about how to ensure that events are meaningful. For example, interviews surfaced one example of how a PLM agency had prioritized the engagement of Latino constituents and had invested in significant needs assessment efforts to understand how to encourage increased use and stewardship of public lands across the Latino community.
Developing a System of VSOs Statewide

Participants at the stakeholder meeting highlighted the value of having a diverse spectrum of VSOs that occupy different niches. However, there was an articulated need for developing a system of VSOs statewide to ensure a cohesive, strategic approach to outdoor stewardship work across Colorado. Participants proposed that the Colorado Outdoor Stewardship Coalition (COSC) take the lead on developing a statewide system through the convening of regional forums and organizing regional assessments. Regional assessments could explore ways in which place-based and statewide organizations can collectively and efficiently meet the needs of PLMs. A more strategic approach to outdoor stewardship work could appeal to funders by clarifying VSO roles, leveraging the capacity of VSOs, and reducing duplication of efforts.