LIVING WITH WILDFIRE

THE STATE OF PRACTICE IN WESTERN COMMUNITIES

FINAL ASSESSMENT REPORT

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Of course, all errors and shortcomings are the sole responsibility of the author.

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Executive Summary

On the order of Congress, the federal land and fire management agencies are collaboratively developing a "National Cohesive Wildfire Management Strategy" (Cohesive Strategy). In order to integrate the experience and insights of community stakeholders working on fire management issues in the west, leaders responsible for the Western Region Cohesive Strategy needed a strong understanding of current trends, needs and opportunities. This assessment was designed to provide that information and is intended to inform strategies, policies and programs emerging through the Cohesive Strategy and in subsequent national fire management investments and priorities going forward. We framed the assessment around the three goals set out in the Cohesive Strategy: response to wildfire, fire adapted communities, and resilient landscapes. The following findings represent a synthesis of the information offered by over 500 individuals reflecting on their experience with fire management:

- A majority of respondents were working across multiple fire management goals in their communities, indicating opportunity for realizing integration and synergy among the three Cohesive Strategy goals.
- Collaboration, cooperation and shared-leadership were highly utilized and highly valued.
- Increased collaboration, communication and sharing of responsibility and authority at the local level can yield improved and sustained partnerships, and improve fire management outcomes.
- Community stakeholder capacity and engagement, supported by flexible programs and partnership arrangements, are important to successfully accomplishing the three Cohesive Strategy goals.
- In both the provision of technical information and assistance, and in learning about new developments in support of fire management, respondents strongly favored various forms of in-person and interactive communications (peer networks, personal contacts, workshops, field tours, etc.) as the most effective tools. However, they also drew on the full array of tools and resources available.
- A diversity of leaders and stakeholders are working through partnerships to plan and implement effective and innovative fire management strategies. However, their successes are constrained by a wide range of social, policy and physical challenges that will require strategic and concentrated actions and investments at multiple levels to overcome.

We hope these findings will guide the Western Region Cohesive Strategy in addressing challenges and supporting at-risk communities as they work to better live with wildfire.

Introduction

In 2009, responding to growing wildfire costs and impacts, Congress directed the federal land and fire management agencies to develop a "National Cohesive Wildfire Management Strategy" (Cohesive Strategy). To recognize unique regional contexts, and fashion strategies accordingly, the nation was divided into three regions: the southeast, northeast and west. As a part of the larger Western Region Cohesive Strategy development process, the Communications Work Group of the Western Regional Strategy Workgroup ordered an assessment in 2012 to explore how communities have engaged in national fire management goals.

This "Assessment Findings" report characterizes trends, needs and opportunities provided by community stakeholders across the western US. The findings and recommendations contained within the assessment will help federal managers, community fire managers and other stakeholders better align their strategies, policies and programs to help support the role of community stakeholders in national fire management goals. The report was organized to bring discussion and key findings to the forefront, with a description of assessment methods, analysis and appendices following. This format was designed to allow readers ready access to those findings most relevant to the Cohesive Strategy, while providing access to the underlying methods, questions and data that informed those findings.

The assessment was comprised of seven sections:

1. Demographics and fire management focus
2. Geographic scales and framing
3. Leadership arrangements and efficacy
4. Participation, organization and partnerships
5. Resources in support of fire management goals
6. Monitoring, evaluation, learning and adaptive management
7. Fire management going forward

Each section was framed around the Cohesive Strategy's three Fire Management Goals (FMGs):

Response to Wildfire: *All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.*

Fire Adapted Communities: *Human populations and infrastructure can withstand a wildfire without loss of life and property.*

Resilient Landscapes: *Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.*

Discussion and Key Findings

1. Demographics and fire management focus

515 individuals participated in the assessment representing approximately 20 distinct types of entities or stakeholder groups. This indicates a wide diversity of players were active in fire management in western communities.

With over 60 percent of total respondents active in each of the three Fire Management Goals (FMGs), it is evident that many individual respondents were working across multiple goals. We believe this finding suggests opportunity for increased synergy and integration among FMGs. Given the relationships and interactions among the three goals, we expect that the increase in synergy and integration would result in improved fire management outcomes across goals and more efficient and effective adaptation of strategies and tactics over time for local fire management efforts.

2. Geographic scales and framing

The trends we found regarding the geographic scale of fire management efforts in relation to the framing of fire management goals reflected an adherence to best management practices set out in recent research findings around Community Wildfire Protection Planning (Williams et al., 2012, Jakes et al., 2012). Working with both appropriate framing and at appropriate scale have proven to be two of the three most important factors in helping to sustain stakeholder participation and collective action over time.

Respondents described the geographic range of their work most often in terms of political geography, particularly when framed around the goals of promoting fire adapted communities and response to wildfire. However, there was also a relatively strong relationship between work on resilient landscapes and bio-physical geographic association. This approach is supported by the fact that fire does not respect ownership boundaries. Further, sound ecosystem management principles focus on bio-physical bounds. Increased bio-physical focus in working on response to wildfire may also improve fire management outcomes.

We also learned that 80 percent of respondents were working across jurisdictional boundaries indicating a strong adherence to the US Department of Agriculture Secretary's "all lands" focus, and the "all lands, all hands" credo of the Cohesive Strategy.

3. Leadership arrangements and efficacy

The federal and state land and fire management agencies were providing high levels of leadership across all three FMGs, while local entities and NGOs provided proportionally higher levels of leadership around the specific goal of resilient landscapes. Local entities provided their highest levels of leadership around promoting fire adapted communities. Native American Tribes and local governments worked most-proportionally across all three goals. This diversity in leadership among the three FMGs suggests that stakeholders are adapting to the unique contexts and challenges presented by each.

Respondents felt that leadership arrangements associated with response to wildfire were most effective, and relatively least effective associated with resilient landscapes. However, the majority of respondents found existing leadership arrangements to be at least somewhat effective across all three FMGs,; a good indication that leadership delegations and investments are functioning relatively well.

Despite this general satisfaction, respondents offered many recommendations for improving leadership, most of which focused on increasing collaboration, coordination and sharing of leadership responsibilities. This indicates a desire from stakeholders to see a greater diversity of the participants in community fire management represented in leadership roles. This finding is supported by research findings showing the value of including more local leaders and local knowledge as a means for improving fire management outcomes (Steelman and Kunkel, 2004, Paveglio et al., 2009).

Respondents also commonly suggested that the legal and regulatory environment was limiting leadership effectiveness, citing the impacts of complicated and time-consuming environmental planning and associated appeals and litigation on federal lands. This suggests a belief that leaders should be granted greater authority for implementing fire management actions across goals.

4. Participation, organization and partnerships

Across all three FMGs, participation was diverse. The levels of participation of the various stakeholder groups in a given goal were strongly related to where they had clear responsibility, jurisdiction, interest or authority.

The goals of promoting fire adapted communities and resilient landscapes had the most diverse and highest levels of participation. This is likely a result of the collaborative approaches encouraged with both of these goals. Collaboration facilitates local approaches, acknowledging that wildland urban interface communities in the west are not monolithic entities, but rather a complex mosaic of communities with different needs and existing capacities for wildland fire and natural resource management (Paveglio et al., 2009).

Participation in the goal of response to wildfire adheres to longer-standing and more prescribed cooperative processes and arrangements. This results in less overall diversity and lower levels of stakeholder participation.

Respondents overwhelmingly felt that partnerships were important to accomplishing their fire management goals, testifying to the critical role of multi-stakeholder collaborative, cooperative and coordinating processes to the success of community fire management in the west.

Given the high number and diversity of formal and information agreement mechanisms cited by respondents, it appears that fire management participants are consistently, responsively and creatively documenting the terms of their partnerships to help guide their shared work.

Respondents described a wide range of factors as important barriers to building and maintaining effective partnerships for advancing fire management goals. Financial and staff resources rated as the most important. However, several barriers including working relationships, trust, and leadership arrangements were also rated as important barriers. Most of the additional barriers cited by

respondents also related to issues of working relationships and trust, primarily in federal agencies. These barriers may also be compounded by the allocation of resources among partners, which often empower certain stakeholders over others and can be artifacts of more complicated jurisdictional, legal or historic issues. This finding suggests that reducing many of the important barriers to participation and partnerships can be addressed without specific new financial resources or legal authorities.

Additional collaboration, communication and sharing of responsibility and authority at the local level could yield improved partnership efficacy. A range of research findings support the assertion that the public has a strong desire to be informed and involved in fire management planning processes at some level (Cohn et al., 2008, McFalane et al., 2007, Paveglio et al., 2001, Ryan et al., 2006, Ryan and Hamin, 2008, Tomin et al., 2008), and that working with local communities to define their own partnership arrangements as they build their capacity to incite social and structural response to wildfire threats is the surest way to provide solutions to wildfire problems facing those communities (Steelman and Kunkel, 2004). Community stakeholder capacity and engagement, supported by flexible programs and partnership arrangements, are essential to successfully accomplishing the three FMGs.

5. Resources in support of fire management goals

Overall, respondents and their partners are accessing and leveraging a wide range (over 40) of funding sources in support of FMGs. In responding to the question about resources they have accessed, 278 total respondents provided over 1,500 specific responses, meaning that many respondents are accessing multiple sources of funding.

While grant programs were by far the most common resources accessed, stewardship contract authorities (goods for services and retained receipts) were also commonly cited, indicating that timber value is playing at least some role as a resource in support of fire management goals. Notably, over 43 percent of respondents cited in-kind labor as a resource they rely on, showing the high contribution of volunteer labor to FMGs in the west.

Not explicitly measured in this assessment data, most of the grant programs respondents accessed encourage or require matching fund contributions. Thus, they are leveraging additional investment, including in-kind contributions, from a range of sources to support FMGs. This compounds the impacts of federal, state, local and private grant investments.

Respondents also relied heavily on multiple forms of technical information, assistance and guidance to support their FMGs. Direct technical assistance from government personnel ranked highly, which stands to reason given that they have the clearest understanding of the policies, programs and authorities, and an official responsibility to implement and enforce them. This broader public expectation is supported in the literature, showing that the government should, and does, provide preferred information, education and outreach on fire issues and as part of fire hazard reduction programs (Jarrett et al., 2009, McCaffrey et al., 2011, McGee 2011, Monroe and Nelson, 2004, Ostergren et al., 2006, Ryan and Wamsley, 2008).

Overall, the most important forms of information, assistance and guidance were peer-to-peer exchanges and personal or organizational networks. Recently published research supports the finding that in-

person interactions and those where participants invest in trust and relationships over time and across geographies, such as in peer-to-peer exchanges and networks, are important to innovation in advancing FMGs (Butler and Goldstein, 2012).

Respondents reported that federal and state land and fire management agencies were contributing the most resources to fire management goals. This was expected, given their authorities, funding and responsibility. Local and regional collaborative and coordinating groups were also identified as contributing significant resources, providing a natural connection between the state and federal programs and resource delivery and local planning and implementation efforts.

Respondents strongly favored in-person and interactive forms of communication as the most important means of learning about new developments in policy and practice in support of fire management. The importance and value of in-person communications (personal email, phone, word of mouth and in-person meetings) are supported by recent research findings as contributing to positive fire management outcomes across the three FMGs (McCaffrey and Olson, 2012). In-person and interactive communications contribute to the quality of agency-community interactions (McGee, 2011, Paveglio et al., 2009, Ryan and Hamin, 2008). These improved interactions and relationships can increase trust; an important factor in improving fire management outcomes across all three FMGs.

Beyond in-person communications, all other forms including email lists, websites and online portals, web searchers and webinars all rated as more important than not. Research findings support the assertion that stakeholders access and rely on the full suite of communications tools based on location and the type of information needed (McCaffrey and Olsen, 2012). This suggests value in continued investment in a variety of communications methods.

6. Monitoring, evaluation, learning and adaptive management

Over two-thirds of question respondents were participating in at least some form of monitoring, evaluation, learning or adaptive management. Their specific efforts ranged from project level, to evaluating the performance of specific initiatives and partnerships, to west-wide programmatic level reviews. Most respondents cited compliance-based monitoring processes, while others provided specific processes for effectiveness monitoring or adaptive management.

The most valuable lessons learned by respondents working on the three FMGs mirror many of the themes that are supported in the literature and that have emerged in the development of the national Cohesive Strategy. The most commonly cited lessons focused on:

- Building common understanding and working relationships built trust among stakeholders.
- Collaboration, coordination and cooperation were essential across all three FMGs.

The literature supports respondent's learning, suggesting that investments in communication and interaction in participatory processes contribute to social learning, thus, helping to realize collective outcomes (shared understanding, mutual agreement, and collective action). (Brummel et al., 2010)

Respondents also learned that on-the-ground treatments to build fire adapted communities and promote resilient landscapes aided in response to wildfire and improved wildfire outcomes. At the same time, they learned that we need to improve the quality, pace and scale of those treatments to achieve the outcomes society desires.

Respondents considered many of their fire management strategies to be especially effective or innovative. Most striking was how respondents and their partners were working within the existing system and programs for fire management while adapting local strategies to improve processes and outcomes to local contexts. It was clear from the range of specific responses that local flexibility was a key theme. The top cited strategies included:

- landscape-scale fuels and ecological restoration treatments
- collaborations and partnerships for fire adapted communities, resilient landscapes and response to wildfire
- communications, messaging and outreach strategies at the local level
- experimenting with legal authorities and legislative "fixes" to overcome challenges in the system

7. Fire management going forward

Almost 40 percent of respondents had participated in the development of the National Cohesive Wildfire Management Strategy, while over 50 percent had not. Respondents described a range of methods and levels of engagement. Many described limited engagement, while others suggested dissatisfaction with their levels and means of engagement, or lack complete lack of engagement. We believe this alluded to the significant challenge of engaging a diverse and geographically dispersed community of practice in a high-level strategic planning process, reflecting the experience for which the Communications Work Group was established.

Respondents overwhelmingly felt that financial and human resources, and the prioritization of those resources, were the most significant impediments to efficient and effective community fire management. They cited a lack of investment in mitigation, described in terms of both increasing resilient landscapes and investing in fire adapted communities, as where resources were most lacking and needing prioritization. A wealth of research has found that community stakeholders believe that investments in mitigation are worthwhile and can reduce the costs of fire suppression (McCaffrey et al., 2008, Winter et al., 2006, Weisshaupt et al., 2007).

Other major impediments provided included:

- a variety of policies, practices and priorities of the federal agencies
- public attitudes and opinions about fire risk and hazards
- a lack of public education
- jurisdictional barriers, authority and cooperation
- a lack of local political will to create and enforce appropriate Wildland Urban Interface (WUI) development zoning, ordinances and building codes
- appeals and litigation on federal land management projects

As the federal agencies have worked through the first two phases of the National Cohesive Wildland Fire Strategy (2012), they have acknowledged nearly all of the major impediments indicated by assessment respondents. Local WUI development zoning, ordinances and building codes are inherently local issues and will need to be overcome through local processes.

The findings from this assessment make clear that a diverse and engaged group of stakeholders are working together on fire management within and in service to communities across the west. Together, stakeholders like those responding to this assessment and Cohesive Strategy leaders will bring their ingenuity, energy and partnerships to bear on the plethora of wildfire management challenges facing communities in the west going forward.

Methods

We conducted this assessment between July 16th and August 12th, 2012 using Survey Monkey as the data collection instrument. Potential respondents received an invitation to participate via email. The sample selection was purposive, using key contacts such as the Western Cohesive Strategy Committee's (WRSC) "outreach list" as the foundation of the sample pool. Beyond this, we relied on the individual members of the WRSC team to provide their key contact lists and invited participation through several relevant networks and associated email lists including: the Western Governors Association, National Forest Foundation, Fire Learning Network, Rural Voices for Conservation Coalition and through additional personal contacts provided by western region fire management leaders. Further forwarding of the assessment invitation among contacts broadened the pool of potential participants.

Because we did not tightly control the sample size, we could not draw statistically defensible or significant conclusions about the entire population engaged in western community fire management. Our data represented the perspectives and experience of actual assessment respondents.

We synthesized responses for "multiple choice" and "rating" questions according to response counts and percentages, summarized through tables and figures in the body of the report and Appendix A. For "other" responses and "open-ended" questions, we coded responses into topical categories. Throughout the report, they were presented in descending order of response frequency. Respondents often provided answers that included multiple topical categories. In these instances, all topical answers were coded and tallied for frequency. Both the topical categories and our characterizations of the diversity of responses therein represent our best attempts at synthesis. Open-ended responses were extensive and were not presented in either the report body or appendices, though they are available from the author upon request.

It is worth noting that we framed "fire management" around the three goals set by the Cohesive Strategy: resilient landscapes, fire adapted communities, and response to wildfire. The academic literature and past plans, such as the National Fire Plan, defined four goals or dimensions of fire management: mitigation, preparedness, response, and recovery. While a minor distinction, this may have affected the framing of responses, which could be reflected in subsequent discussion and conclusions in relation to citing support in literature.

Finally, our findings do not attempt to draw demographic distinctions among respondents. Subsequent analysis may help to provide additional insight into differences in experience and perceptions associated with the demographic diversity of stakeholders that participated in the assessment.

Assessment Analysis

1. Demographics and fire management focus

We investigated the demographic representation of respondents, focusing on which of the Cohesive Strategy's FMGs they were participating in.

A total of 515 respondents initiated the assessment and answered at least one question while 325 individuals completed the entire assessment (Table 1).

Table 1. Demographic representation of assessment respondents

For the purposes of this assessment, what type of entity are you representing?		
Answer Options	Response Percent	Response Count
Federal government	25.0	129
State government	6.4	33
County government	9.5	49
Local municipal government	4.3	22
Tribal government	2.9	15
Local fire department	5.8	30
Regional or national non-governmental organization (NGO)	6.4	33
Local NGO	5.4	28
Collaborative or coordinating group	3.3	17
University	3.9	20
Private company	9.3	48
Individual citizen (I represent myself)	10.3	53
Other (please specify)	7.4	38
answered question		515
skipped question		0

Federal government employees were by far the best-represented demographic, providing 25 percent of responses. In the "Other" category, Fire Safe Councils, representatives of professional organizations and local non-governmental organizations (NGOs) were each represented by multiple respondents.

Respondents were highly engaged in each of the three FMGs in their respective geographies with more than 60 percent of total respondents to the question active in each FMG (see Appendix A, Table 1, page 31). Out of 505 respondents, 72.5 percent were active in promoting resilient landscapes, 68.1 percent were active in promoting fire adapted communities and 60.2 percent were active in promoting safe, effective and efficient response to wildfire.

2. Geographic scales and framing

Implementation of the Cohesive Strategy's three FMGs was reported as being carried out at varying geographic scopes and scales, and sometimes as nested or integrated efforts across geographies. We investigated how assessment respondents characterized the geographic scope and scale of their work,

and around which of the three FMGs they were framing that work across those geographic scope and scales (Figure 1).

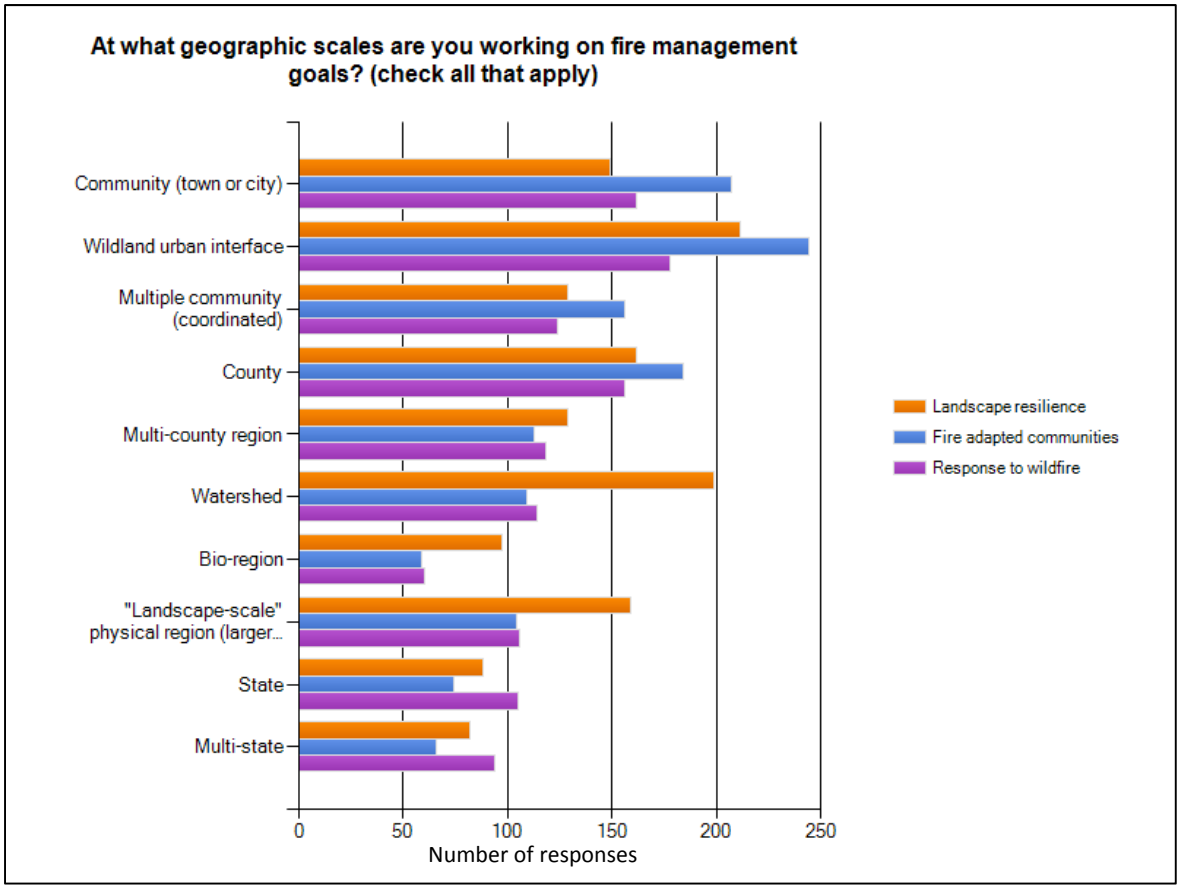

Figure 1. Geographic scale of fire management efforts

Across all three FMGs, respondents most commonly described the geographic range of their work in terms of formal political boundaries or jurisdictions. This relationship was particularly strong associated with the goal of promoting fire adapted communities, which is most focused on the built environment and community engagement. There was also a strong correlation between more bio-physical geographic descriptions, such as “watershed” and “landscape-scale”, and the goal of promoting resilient landscapes. In general, respondents were working more commonly at scales smaller than the state and multi-state level.

Over 80 percent of respondents were working across jurisdictional boundaries in each of the three FMGs (see Appendix A, Table 2, page 31).

3. Leadership arrangement and efficacy

The nature of leadership roles and arrangements can make a significant difference in whether and how Cohesive Strategy’s FMGs are planned and implemented. We examined who have been leading FMG implementation and the efficacy of leadership.

Leadership responsibility was distributed, with multiple entities contributing in each of the FMGs. Responsibility was weighted towards different entities depending upon the FMG in question (Figure 2).

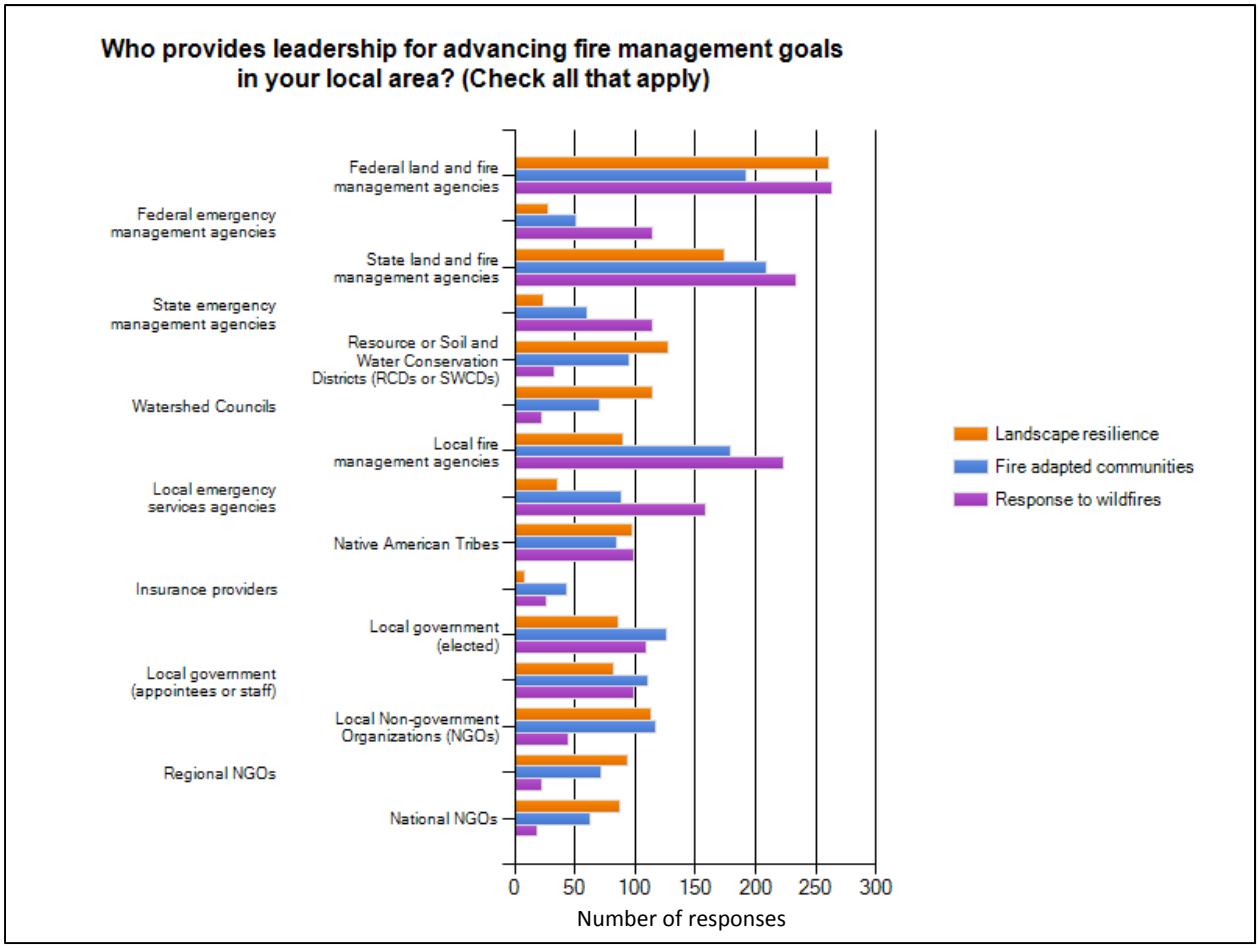

Figure 2. Distribution of leadership responsibilities for the three FMGs

Respondents reported that federal and state land and fire management agencies were providing the highest levels of leadership across all three FMGs. Federal, state and local government agencies, including land and fire management and emergency services agencies, were characterized as providing proportionally higher levels of leadership around the goals of fire adapted communities and response to wildfire. Local entities and NGOs (local, regional and national) were providing proportionally higher levels of leadership associated with promoting resilient landscapes. Native American Tribes and local governments (represented by both elected individuals and staff) were characterized as providing leadership in near equal proportion and across all three FMGs. Because respondents were invited to "check all that apply", these findings indicate which entities are most important in leadership, but don't necessarily suggest sole responsibility for leadership.

The majority of respondents found existing leadership arrangements associated with their efforts to be at least "somewhat effective" across all three FMGs, with the response to wildfire showing the highest levels of "very effective" leadership (see Appendix A, Figure 1, page 32). Resilient landscapes received

the highest levels of “somewhat ineffective” and “very ineffective” leadership relative to the other two goals.

We asked respondents to provide open-ended recommendations for improving leadership arrangements. We received over 114 responses. The following are those categories with greater than 10 responses, in descending order: increasing on-the-ground outcomes, changing the regulatory/legal environment, increasing shared-leadership, greater collaborative planning and implementation, and greater coordination. Most responses related to increasing on-the-ground outcomes did not provide a clear recommendation for the role of leadership. Most responses around regulatory and legal issues focused on the impacts of complicated and time-consuming environmental planning and associated appeals and litigation on federal lands as challenges to leadership decisions and actions around resilient landscapes. Recommendations for increasing shared-leadership commonly referred to the need to empower other stakeholders, beyond those currently in leadership positions, to play a more formal role in leadership of local fire management efforts. Responses suggesting the need for greater collaborative planning and implementation focused on reducing conflict in support of resilient landscapes. Increased coordination was most often given as a means to improve inter-agency coordination around response to wildfire. Some respondents also indicated that aligning agency missions could help to improve coordination.

4. Participation, organization, and partnerships

Participation from relevant stakeholders, coupled with effective partnerships among relevant organizations and stakeholders, are important elements to successful implementation of the Cohesive Strategy’s FMGs. We investigated the extent and nature of stakeholder participation and partnerships. Given the number and diversity of partners and stakeholders engaged in FMGs, and the formal legal responsibilities and vested interest of stakeholders and organizations, formal agreements are often desirable and necessary. We examined the types of agreements being utilized to formalize partnerships.

We found stakeholder participation to be fairly diverse across the three FMGs (Figure 3).

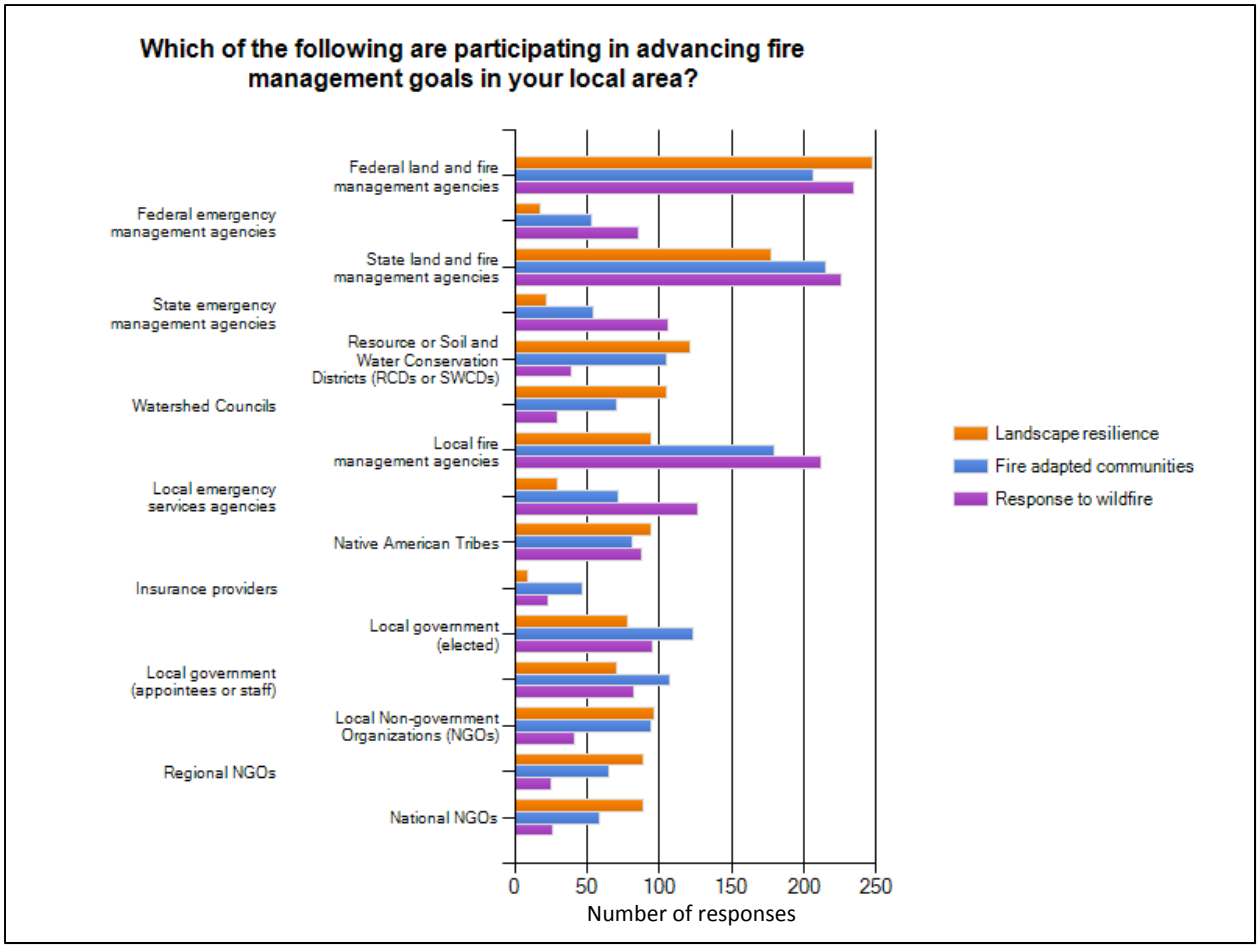

Figure 3. Distribution of stakeholder participation for the three FMGs

We found that federal and state fire and land management agencies were the most highly represented stakeholders participating in all three FMGs. For the goals of fire adapted communities and response to wildfire, local fire management agencies were the next most highly represented stakeholders. Given these stakeholders' official responsibilities for fire management, this was an expected finding. Likewise, federal, state and local emergency response agencies participated most often in promoting fire adapted communities and response to wildfire; those goals most directly tied to their management responsibilities and authorities. We found that local groups and NGOs participated most commonly in promoting fire adapted communities and resilient landscapes, while their participation in advancing response to wildfire was relatively limited. As with leadership responsibilities, Native American Tribes and local government representatives participated relatively evenly in efforts across all three FMGs. The greatest diversity of entities were participating at the highest levels associated with the goals of promoting fire adapted communities and resilient landscapes.

82 percent of respondents rated partnerships as "very important" to accomplishing their fire management goals with over 95 percent indicating that partnerships were at least "somewhat important." (see Appendix A, Table 3, page 32)

240 Respondents cited 655 individual agreements, representing a wide range of formal and informal tools and mechanisms (see Appendix A, Table 4, page 33). They provided examples covering geographic scales ranging from within local communities to nation-wide and institutional complexities ranging from two-party contracts and agreements to memorandums of understanding (MOUs) with dozens of signatories.

We asked respondents to both name and rate the importance of agreements. Based upon the 655 individual responses, we categorized like-agreements and present them here in descending frequency. Formal mutual aid and assistance agreements at the state and local levels for response to wildfire indicated most-often. The second most-cited were a wide variety of local multi-stakeholder agreements including: community wildfire protection plans (CWPPs), fire safe councils, Firewise Communities Program, MOUs, or charters for local forest collaboratives. The third most-cited category of agreements was formal two-party (and rarely three-party) agreements with the Forest Service including: stewardship, challenge cost-share and cooperating. Formal contracts were the next most common type including; timber sales and service contracts ranging from project-specific to standing contracts for fire suppression services. Several respondents also cited larger region-level forest collaborations, some of which were associated with the Collaborative Forest Landscape Restoration Program. Finally, respondents provided many examples of locally, regionally and nationally specific agreements focused on interagency cooperation across governmental agencies and levels of government for managing various specific programs and projects related to the three FMGs.

We also examined the importance or unimportance of various barriers to building and maintaining effective partnerships for advancing fire management goals. Over 60 percent of respondents cited lack of financial resources as “very important” (Figure 4).

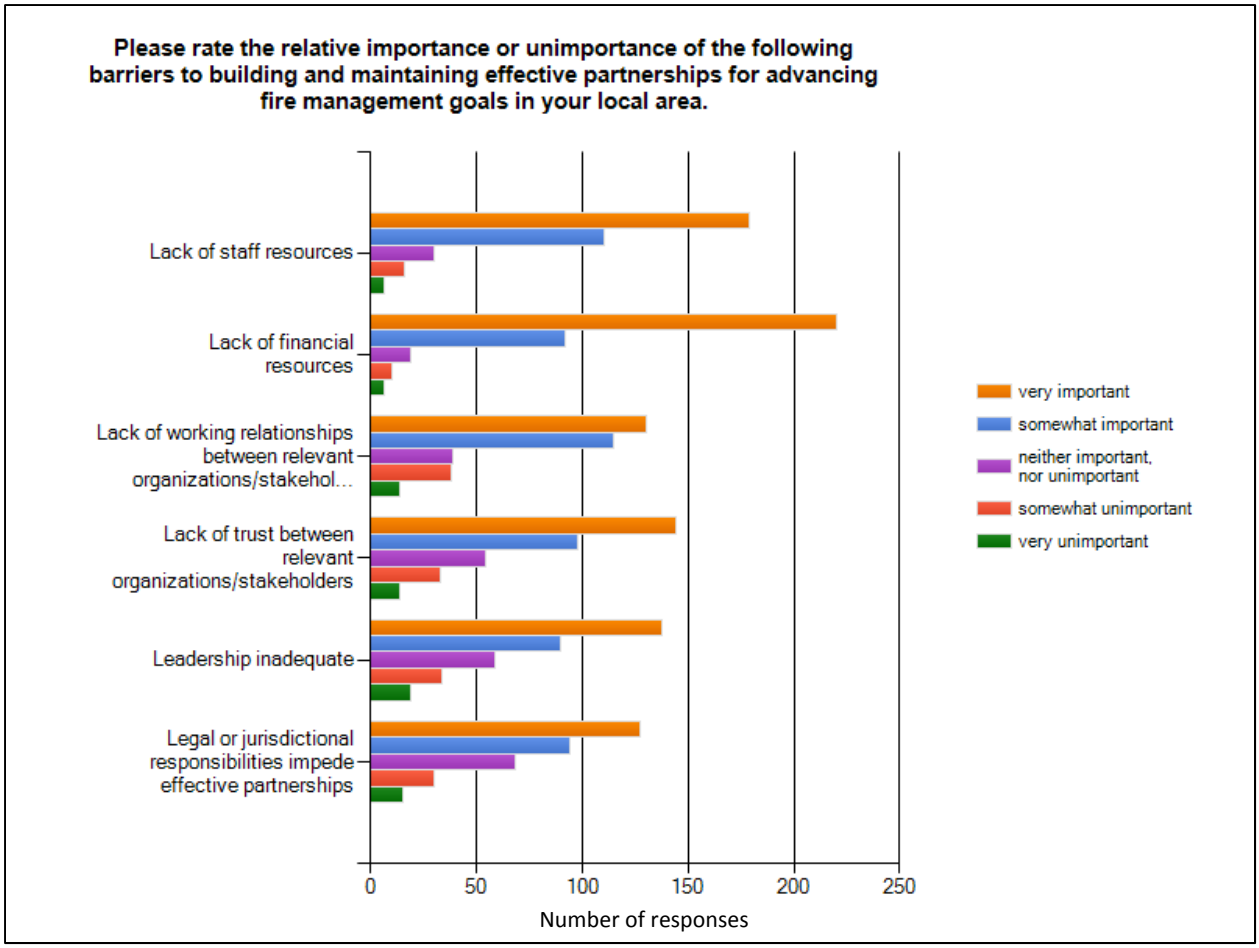

Figure 4. Relative importance or unimportance of major barriers to building and maintaining effective partnerships

Respondents indicated that all six major barriers provided were at least "somewhat" or "very important" with none rated as being largely "unimportant".

Other issues cited as barriers to building and sustaining partnerships, in descending order according to frequency of response, included: conflicting stakeholder attitudes and perceptions, inadequate codes and laws, lawsuits, federal bureaucratic processes, conflicting missions and goals, declining resources, a lack of local capacity to participate, and a lack of recognition of tribal sovereignty.

5. Resources in support of fire management goals

Resources such as program and project funding, labor and technical support, and the ways that information is accessed are important factors in fire supporting management. We examined the types of resources respondents accessed, the relative importance of various sources of technical information, assistance and guidance, and the ways that respondents learned about new developments in support of their fire management efforts.

278 total respondents to this question provided over 1,500 specific responses citing approximately 40 distinct funding sources in support of their FMGs (Figure 5).

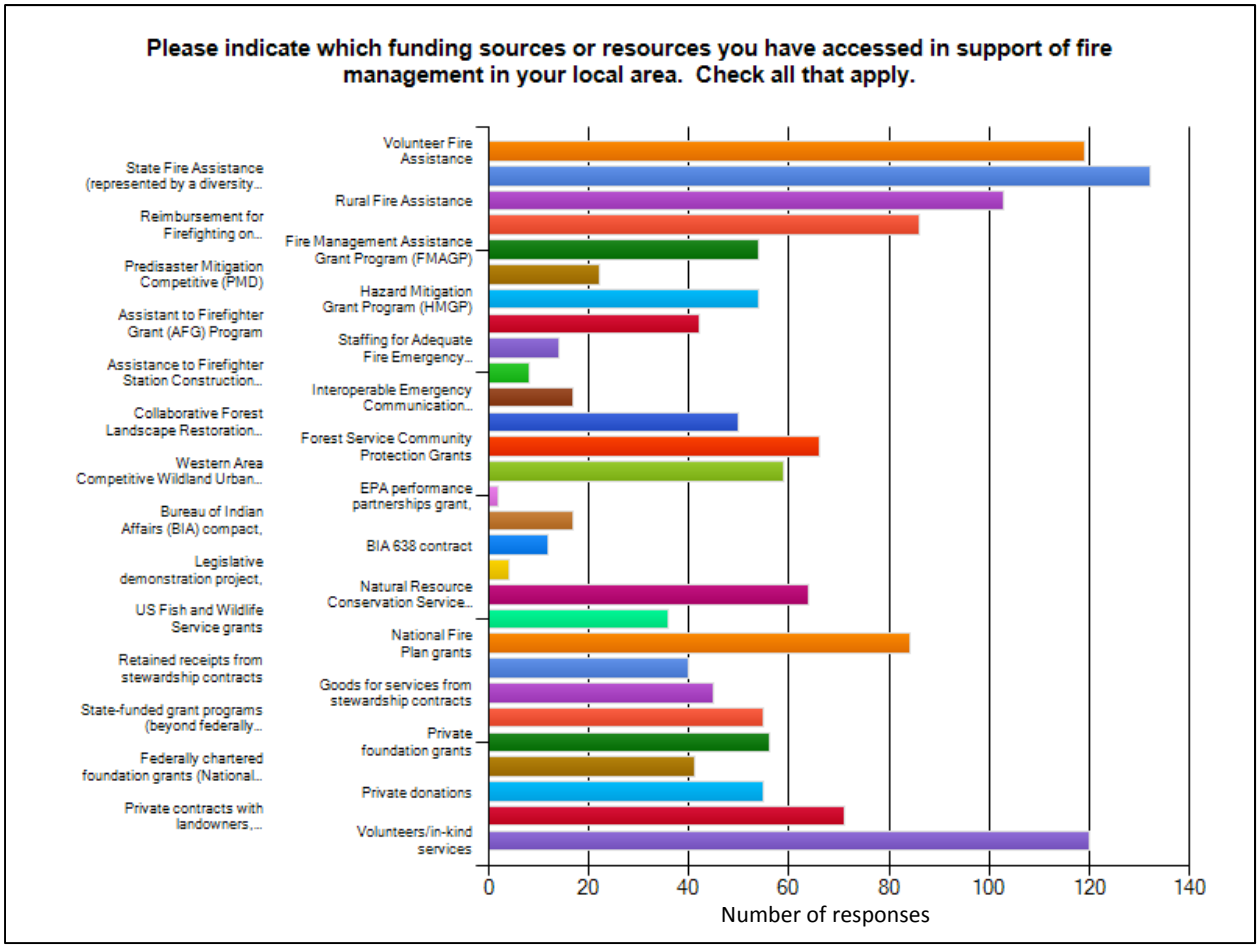

Figure 5. Funding sources and resources accessed in support of FMG goals

Volunteer Fire Assistance, State Fire Assistance, Rural Fire Assistance and in-kind contributions from volunteers rated as the most commonly-accessed sources, all of which were noted by more than 37 percent of respondents.

We found that, when combined, grant programs were by far the most common resources accessed. However, over 43 percent of respondents reported relying on in-kind donations. Goods for services and retained receipts from stewardship contracts were also cited by 16.2 and 14.4 percent of respondents, respectively.

Along with funding resources, technical information, assistance and guidance were important to helping advance FMGs across the west (Figure 6).

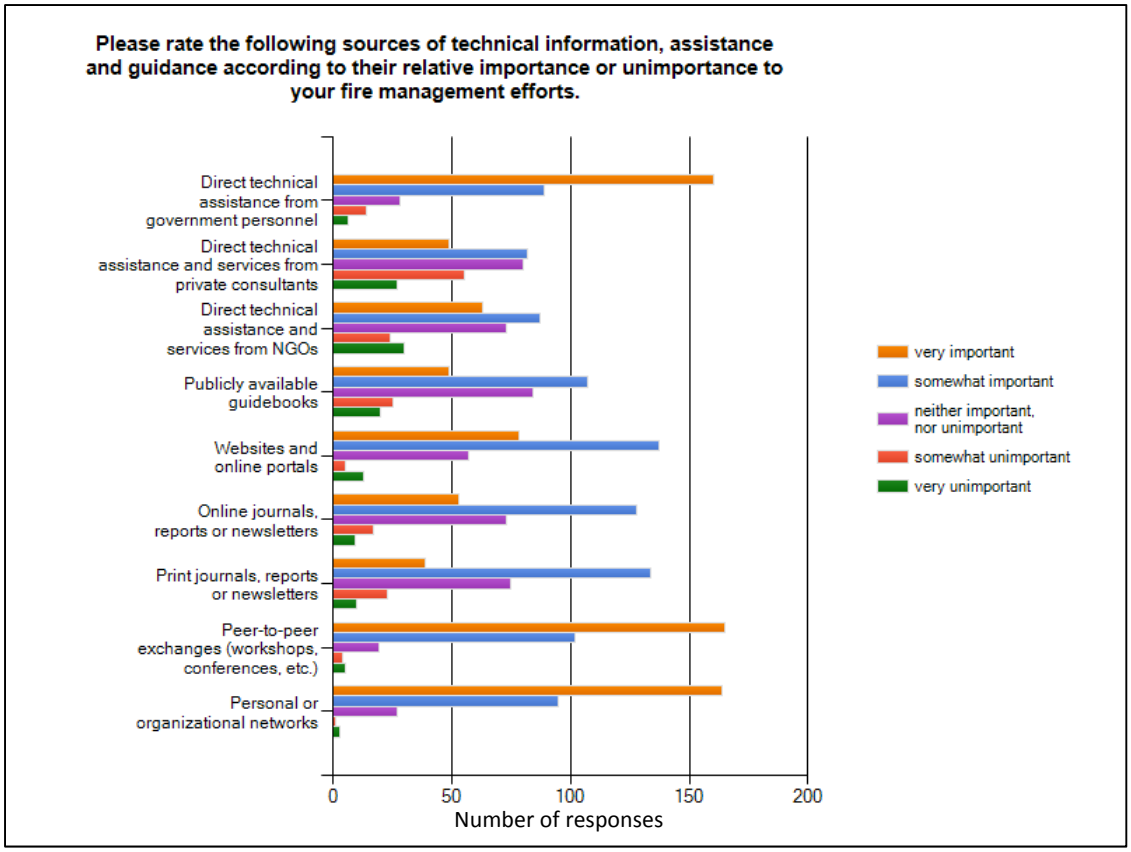

Figure 6. Relative importance of various sources of technical information, assistance and guidance in support of FMGs

Figure 6 shows that direct technical assistance from government personnel, peer-to-peer exchanges and personal or organizational networks were each cited as "very important" to at least 160 of the 307 total respondents to this question; over 50 percent. Overall, most of the major sources of assistance indicated were at least "somewhat important" to respondents.

Only two sources, direct technical assistance from private consultants and from NGOs, were rated less than at least "somewhat important" by more than 50 percent of respondents.

Respondents indicated that federal and state land and fire management agencies contributed by far the most resources (staff, money, technical support, political support, etc.) of any stakeholder group across all three FMGs (Appendix A, Figure 2, page 33)

Respondents reported that the next most important contributors of resources for advancing FMGs were local fire management agencies and local or regional collaborative or coordinating groups (Fire Safe Councils, forest collaborative groups, community planning groups or other collaborative planning groups).

Respondents strongly favored the various forms of in-person communications as "very important" sources for learning about new developments (new programs or policies, funding opportunities,

guidebooks, web portals, best practices or innovations) in support of their fire management efforts (Figure 7).

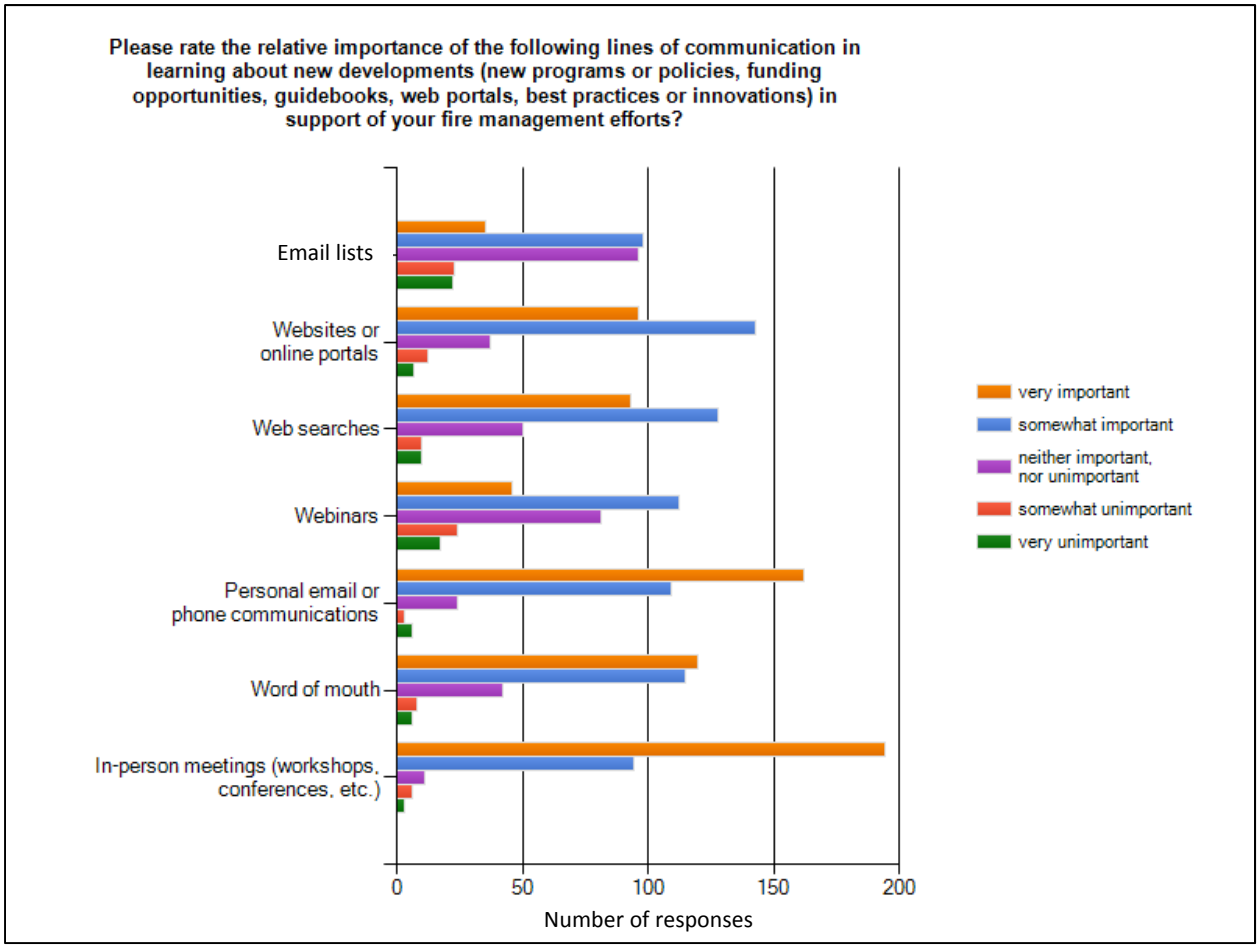

Figure 7. Relative importance of major communication methods for learning about new development in support of FMGs

Other sources were also strongly rated as at least "somewhat important" with many suggesting they were "very important." These included sources such as email lists (listservs), websites and online portals and web searches. While webinars rated as the least important communications method, respondents still rated them more "neutral" or "important" than "unimportant."

6. Monitoring, evaluation, learning and adaptive management

Accountability to objectives, budgets and constituents are important to all three FMGs. Further, policies, ecological and economic conditions and social dynamics can all change over time, requiring adaptation. We investigated the types of processes monitoring, evaluation, learning and adaptive management processes that respondents were engaged in.

Over two-thirds of respondents were involved in some form of monitoring, evaluation, learning or adaptive management (Table 2) with less than one-quarter of respondents involved in no such process.

Table 2. Participation in some form of formal monitoring, evaluation, learning or adaptive management process

Do you participate in any form of formal monitoring, evaluation, learning or adaptation processes related to your fire management efforts?		
Answer Options	Response Percent	Response Count
Yes	66.7%	206
No	24.6%	76
Unsure	9.4%	29
If yes, please describe.		157
answered question		309
skipped question		206

157 respondents provided open-ended descriptions of processes ranging from standardized project implementation and fire monitoring and reporting, to more involved processes designed to foster shared-learning and adaptive management at the local or landscape level. Processes also ranged in scope, scale and frequency. Processes ranged formal to informal in nature, sometimes being required by program rules, other times part of a chartered process for a group, other times voluntary and ad hoc. Due to the diversity of specific responses and the variety of ways in which respondents answered the question, we were unable to discern clear trends regarding the most common processes overall.

We did learn that the most common examples of project-level monitoring included collecting plot data on fuels and other ecological attributes, used both for tracking implementation ("Did we do what we said we were going to do?") and effectiveness ("Did it work?"). These processes tended to focus on evaluating progress towards resilient landscapes objectives and post-wildfire monitoring.

Respondents also described a range of more programmatic monitoring processes focused on broader geographies or larger-scale initiatives over time. Several cited Collaborative Forest Landscape Restoration Program (CFLRP) monitoring, while others cited specific county-level initiatives and forest collaborations where participants conducted intermittent (often annual) reviews of progress.

We asked respondents to share their most valuable lessons learned from working on the three goals of fire management. Based upon the 223 responses we received to this question, we developed seven categories of response, presented below in descending order of frequency. Some respondents provided answers fitting multiple categories. In each category, we attempted to synthesize and characterize the suite of specific responses.

Collaboration, coordination and cooperation work (73 responses)

Respondents described the importance of working together and pooling resources, describing that no one entity has all of the resources or agency to accomplish all of their fire management goals. They provided many successful examples of using collaboration, coordination and cooperation, ranging from formal to informal according to local context, legal authority and resources. In general, they suggested that more resources, more inclusion and strong partnerships lead to better outcomes.

Other lessons learned (48)
Rather than offering lessons learned, most respondents in the "other" category expressed various frustrations or misgivings related to the following issues: shifting policies, appeals and litigation, rising suppression costs, wildfire management strategies, lack of local actions around building codes and development in WUI, inability to reach and motivate the public/landowners to action, and concerns about long-term grant funding viability associated with the goal of resilient landscapes.

Common understanding and working relationships are key to establishing and pursuing common goals (38 responses)
Whether through public education or through the establishment of trusting relationships between key actors in fire management, respondents expressed that progress only comes when everyone has a common understanding of the challenges they are facing and where they reach some level of agreement on how to work towards solutions.

On-the-ground treatments are having an impact (29 responses)
Respondents have learned a great deal about the value of on-the-ground treatments for resilient landscapes. In general, they believed that fuels treatments work and expressed that we need more fuels treatments (increase pace and scale). They have learned a great deal through experience and offered a number of specific examples about how to make treatments better, both in terms of affecting wildfire behavior and outcomes, and in terms of ecological outcomes.

Local resources and capacity are challenging yet critical (20 responses)
Respondents expressed that, while local communities often lack capacity or cohesion for work in all three FMGs, they are also essential to achieving desirable fire management outcomes. They asserted that Fire Safe Councils, rural fire departments, local collaborative groups and local advisors providing local knowledge during wildfire events contribute a great deal to fire management.

Communications are key on many levels (20 responses)
Whether in landowner and public education or in communicating with local residents and stakeholders during a wildfire event, respondents reported that effective, consistent and timely communication is key to successful fire management outcomes.

Federal and state politics and participation sometimes hinders local efforts (16 responses)
While the contributions of federal and state programs and staff were acknowledged, respondents cited political positioning, changing policies and bureaucratic and legal processes as hindering fire management accomplishments.

We also asked respondents whether they were working on any fire management strategies that they considered especially effective or innovative and that they believed would be helpful in advancing other community-based fire management efforts around the west. Nearly 50 percent (150 individuals) responded that they were (Appendix A, Table 5, page 34) and most provided open-ended examples. Following are the seven categories of response, including our synthesis and characterization of the suite of specific responses:

Collaboration and partnerships (38 responses)
Respondents focused most heavily on local fire management partnerships citing Fire Safe Councils, local coordinating groups and forest collaboratives as especially important. These local efforts often cut across multiple FMGs. Others cited multi-county and regional efforts, primarily focused on encouraging resilient landscapes at a large (multiple national forest, multi-county, multi-state) scale. Others cited state-level partnerships for response to wildfire, fire adapted communities communications and extension.

Landscape-scale treatments (35 responses)
Many respondents provided examples of landscape-scale treatments that they are working on or have been involved in. Recurring respondent themes included the utility of partnerships to achieving success in increasing scale and working across land-ownerships and the use of the full range of fuels management tools (biomass removal, timber harvest, grazing, prescribed fire, stewardship contracting, etc.) to achieve desired outcomes.

Planning strategies and processes – particularly local ones (24 responses)
Respondents cited past and ongoing planning efforts at multiple geographic scales. Local Community Wildfire Protection Plans were the most common example given. They also provided examples focused on watershed and landscape-level planning, and some also cited national and west-wide efforts such as the Cohesive Strategy and the West-wide Risk Assessment.

Communications, messaging and outreach (16 responses)
Respondents were using both established programs, such as those supported through the Fire Adapted Communities program and partnership, and locally developed strategies to communicate with the public regarding FMGs. Local "fire risk surveys" and home inspections were cited as particularly effective for communicating directly with individual landowners. Others had produced and distributed educational videos, conducted regular field tours, worked with local schools and made presentations to existing community groups.

Other lessons learned (15 responses)
Many of the respondents expressed frustrations over a range of topics that were not per se lessons learned. Respondents did describe learning associated with prescribed fire and native plants, increasing awareness for local physical and weather conditions in relation to fire, the importance of local community empowerment and engagement in successful fire management, and the value of networking.

Experimenting with legal authorities and legislation (12)
Several respondents were experimenting with the use of legal authorities for a range of purposes. Establishing new ordinances for fuels and building codes in the WUI was the most common legal approach being employed. Stewardship agreements between the Forest Service and counties, flexible stewardship contracting approaches, the "Good Neighbor Program," a municipal watershed bond to fund resilient landscapes treatments, and the establishment of county trust forests from federal lands were also provided as specific examples.

Training (5 responses)
Respondents provided examples of training on integrating Native American cultural practices into contemporary fire management, cooperative training around prescribed fire and training related to community fire planning.

7. Fire management going forward

As part of the communications strategy for the Western Region Cohesive Strategy development process, we designed this assessment to help better understand how stakeholders have participated in fire management in service to communities in the past. We were also interested in how they have been participating in the development of the new Cohesive Strategy, and in what they see as the greatest impediments to efficient and effective community fire management going forward.

Almost 40 percent of respondents had been involved in some way in the process to develop the new National Cohesive Wildfire Management Strategy while over 50 percent had not (Table 3).

Table 3. Participation in the creation of the National Cohesive Wildfire Management Strategy

In 2009, Congress ordered US fire managers to create a new "National Cohesive Wildfire Management Strategy." Teams have been working at the national and regional-level over the last two years to craft this strategy. Have you been engaged in that process, and If so, please briefly describe how you've been engaged.		
Answer Options	Response Percent	Response Count
Yes	39.2%	123
No	53.5%	168
Unsure	7.6%	24
If yes, how have you been engaged		129
answered question		314
skipped question		201

129 of the respondents provided an open-ended response indicating how they had been engaged. Of those, 25 provided formal comments, 20 had participated in some sort of formal meeting or had received a presentation on the subject, and 24 had participated in some official capacity through their work, a professional network or association. 40 respondents had been engaged through some combination of interviews, surveys, conference calls and other by receiving various “updates” and “bulletins.” 20 expressed dissatisfaction with their participation or with the Cohesive Strategy development process generally.

Finally, we asked respondents to provide their open-ended opinion of the most significant impediment to efficient and effective community fire management going forward. Over 280 individuals provided responses, from which we developed eight categories of response, presented below in descending order of frequency. Some respondents provided answers fitting multiple categories. In each category, we attempted to synthesize and characterize the suite of specific responses and presented them in descending order of response frequency:

Resources – money, people, infrastructure and prioritization (89 responses)
Money was by far the most commonly cited impediment to efficient and effective fire management with respondents describing both total amount available and the prioritization of those funds as important factors. Following were the most commonly offered factors:

- Respondents felt the allocation of funding for suppression was prioritized over mitigation, and suggested that more funding is needed for restoration and fuels treatments for resilient landscapes and fire adapted communities. For many this issue contributed to the inability to treat fuels at a pace and scale that would eventually result in lowering the costs of response to wildfire.
- Some directly cited that more funds are needed for education and community engagement.
- Others cited the challenge that funding needs to be more flexible across jurisdictional boundaries and program areas.
- Several also asserted that the inconsistency and uncertainty in funding levels created problems for maintaining programs and supporting infrastructure.

Staffing and workforce issues were provided as the second most critical resource related impediment. Most of the responses focused on the lack of adequate staffing levels within the federal agencies for planning, laying out and administering projects and participating in local partnerships. Respondents also cited the lack of staffing at community-based organizations and volunteer fire departments. The availability of a skilled workforce for implementing fuels treatments and responding to wildfires was also provided.

Several respondents asserted the need to maintain forest products infrastructure for fuels management, logging and utilization, and to build appropriate infrastructure where it doesn't exist. Respondents described how this could help to make treatments more cost-effective. Contrary to this framing, several respondents questioned the prioritization of planning for timber-related projects over those they felt were more strategic to protecting communities. Respondents on both sides of this issue saw fighting over projects with timber harvest as an impediment.

Finally, several respondents discussed the need become more efficient in using the resources we do have. They described the need to minimize duplication of efforts across agencies and stakeholders. They suggested aggregating individual roles and responsibilities across and within agencies while also integrating planning efforts around the three fire management goals.

Federal agencies – policies, priorities and practices (67 responses)
Respondents cited the specific policies and priorities affecting the performance of the federal public land and fire management agencies as one of the most important sets of impediments.

Respondents described a number of policies as important impediments including; the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), assignment of wildfire liabilities, prescribed fire liability, federal fire policy, federal land management policy, and air quality regulations. They implicated these policies as impediments to encouraging resilient landscapes and efficient and effective response to wildfires.

- Respondents expressed that NEPA and ESA requirements were obstructing treatments for resilient landscapes through inordinately high planning and legal costs and delays. They often related this to the sense that appeals and litigation are major impediments.
- They felt that the assignment of wildfire liability to adjacent private landowners and forest users would stymie cooperation going forward.
- Regarding fire policy, respondents were conflicted; some believed that they were letting fires burn too much (not suppressing aggressively enough in initial attack and too much focus on wildfire use for resource benefits), others believed they were spending too much putting fires out. Neither related this to specific policy provisions.
- Responses regarding fire suppression and response to wildfire were related to federal agency policies, priorities and practices as impediments. Some respondents suggested that the federal land management agencies are not capable or appropriately positioned for accomplishing fire management objectives, suggesting that more state and local control over federal land management and response to wildfire is necessary.
- Finally in regards to policies, respondents felt that both liability issues and air quality regulations were limiting the potential for more prescribed fire as an important tool for resilient landscapes.

Respondents perceived that a number of specific federal agency priorities were serving as impediments to efficient and effective fire management. Some felt that the agencies focus too heavily on management for commodities through timber harvest and grazing. Others felt that there was not enough focus on management for commodity resources. Some felt that there was not enough investment focused specifically on fuels treatments in the WUI.

Regarding agency practices, several respondents reported that a lack of coordination between agencies was impeding response to wildfires. Other suggested that better integration of management objectives within agencies could counteract the “stovepipe” effect, and lead to better outcomes.

Public attitudes and opinions (44 responses)

Respondents described the attitudes and opinions of both individual landowners and the general public as impediments. They described public apathy and indifference to the threat from wildfire, and lack of understanding the need to mitigate that threat. Several respondents described how only after a disaster could they get people’s attention and action on mitigation goals. Some suggested that the public forgets about the risk and hazard shortly after a fire event.

Several respondents suggested that a lack of understanding and acceptance around fire’s role in western ecosystems was an impediment to better response to wildfire and to completing treatments to improve resilient landscapes. In particular, they cited fears of prescribed fire and thinning as barriers to progress.

Other impediments (36 responses)

Respondents provided many “other” barriers to efficient and effective fire management including: the effects of climate change, a lack of adequate engagement from insurance companies, an inability to maintain fuels treatments that have already been implemented over time, federal agency cultures (no

specifics provided), inefficiency and duplication of efforts across fire management systems, a lack of locally-specific science, too much collaboration, too little collaboration, scientifically inadequate monitoring of fuels and fire management outcomes, fuel loading that is too high to use fire as an effective tool for promoting resilient landscapes, and a lack of authority for tribes to use fire as a management tool.

Appeals and litigation (14 responses)

Respondents cited excessive litigation and appeals as major impediments, primarily related to the goal of resilient landscapes.

Politics and political will (13 responses)

Several respondents simply cited "politics" as an impediment, while others provided more specific examples of where they perceived a lack of political will was contributing to a dearth of local planning and zoning rules and enforcement that could limit development in the WUI. They expressed that the lack of will and action on the part of local elected officials and county governments was contributing to increased risk, loss, and costs associated with all three FMGs.

Lack of education (10 responses)

Respondents cited a lack of individual, community and lawmaker education and awareness about fire risks and hazards, general public education about the ecological role of fire in westerns ecosystems, and education around the range of appropriate actions to mitigate fire risks and hazards as important impediments.

Jurisdictional barriers, authority and cooperation (10 responses)

A number of respondents cited working across land ownership boundaries as a major impediment relating to resilient landscapes and response to wildfire, both at the local scale across parcels and at the state and federal level across larger holdings and jurisdictions. Two respondents suggested that a lack of local control and authority associated with public forest land and fire management was a major impediment. Several respondents tied these impediments to a broader lack of cooperation, both among governmental agencies and other stakeholders.

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Appendix A: Additional Tables

Table 1. Participation in fire management goals

1. US Fire Management Policy focuses on three long-standing goals; 1.) Resilient landscapes - Focused on planning for and implementing strategic reduction of hazardous fuels, ecological restoration, and other vegetation management for the purposes of creating landscape conditions that can accommodate wildfire without uncharacteristic effects. 2.) Fire adapted communities - Focused on community wildfire protection planning, protecting the wildland urban interface, community fire awareness and education campaigns, evacuation and emergency response planning, ensuring defensible space around homes, fire safe building codes, etc. 3.) Response to wildfire - Focused on fast, safe and effective wildfire management and suppression, inter-agency coordination, training, provisioning fire management resources such as engines, contractors, air tankers, personnel, etc. Which goals are you working on (check all that apply)?

Answer Options	Response Percent	Response Count
Resilient landscapes	72.5%	366
Fire adapted communities	68.1%	344
Response to wildfire	60.2%	304
answered question		505
skipped question		10

Table 2. Cross-jurisdictional work on fire management goals

1. Is your work on the following fire management goals cross-jurisdictional (ie. spanning ownership, governmental or social boundaries)?

Answer Options	Yes	No	Not sure	Response Count
Resilient landscapes	318	53	27	397
Fire adapted communities	316	38	17	370
Response to wildfire	283	29	12	324
			answered question	451
			skipped question	64

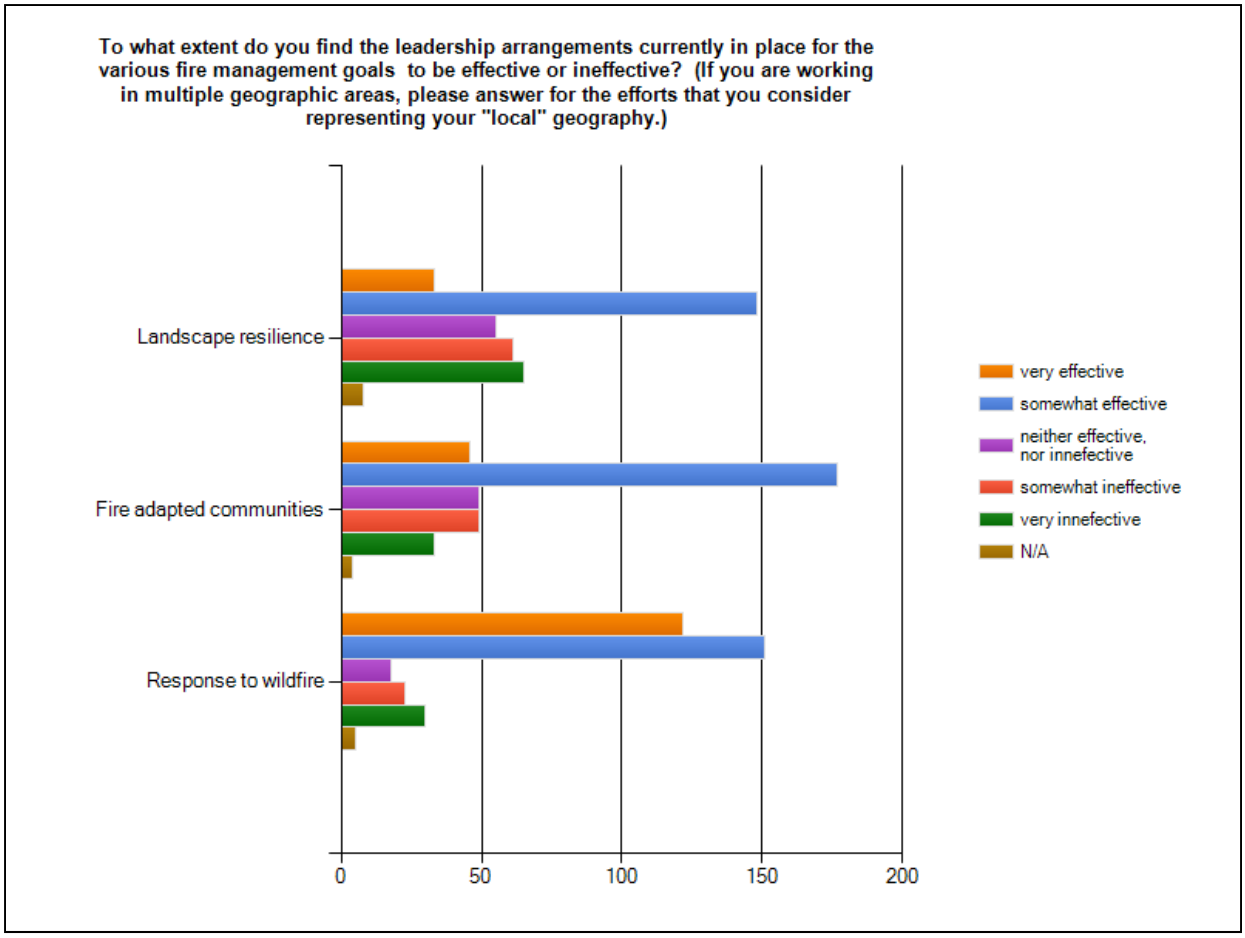

Figure 1. Relative effectiveness of leadership arrangements associated with fire management goals.

Table 3. Relative importance of partnerships to fire management efforts.

1. How important or unimportant are partnerships to your fire management efforts?							
Answer Options	very important	somewhat important	neither important, nor unimportant	somewhat unimportant	very unimportant	Rating Average	Response Count
	287	47	7	3	6	1.27	350
						answered question	350
						skipped question	165

Table 4. Most important agreements for facilitating fire management goals.

Please list the formal or informal agreements (inter-agency agreements, contracts, memorandums of understanding, etc) that are most important for facilitating coordinated, efficient and effective fire management in your local area.		
Answer Options	Response Percent	Response Count
1.)	100.0%	240
2.)	70.4%	169
3.)	50.4%	121
4.)	27.1%	65
5.)	15.0%	36
6.)	6.3%	15
7.)	3.8%	9
	answered question	240
	skipped question	275

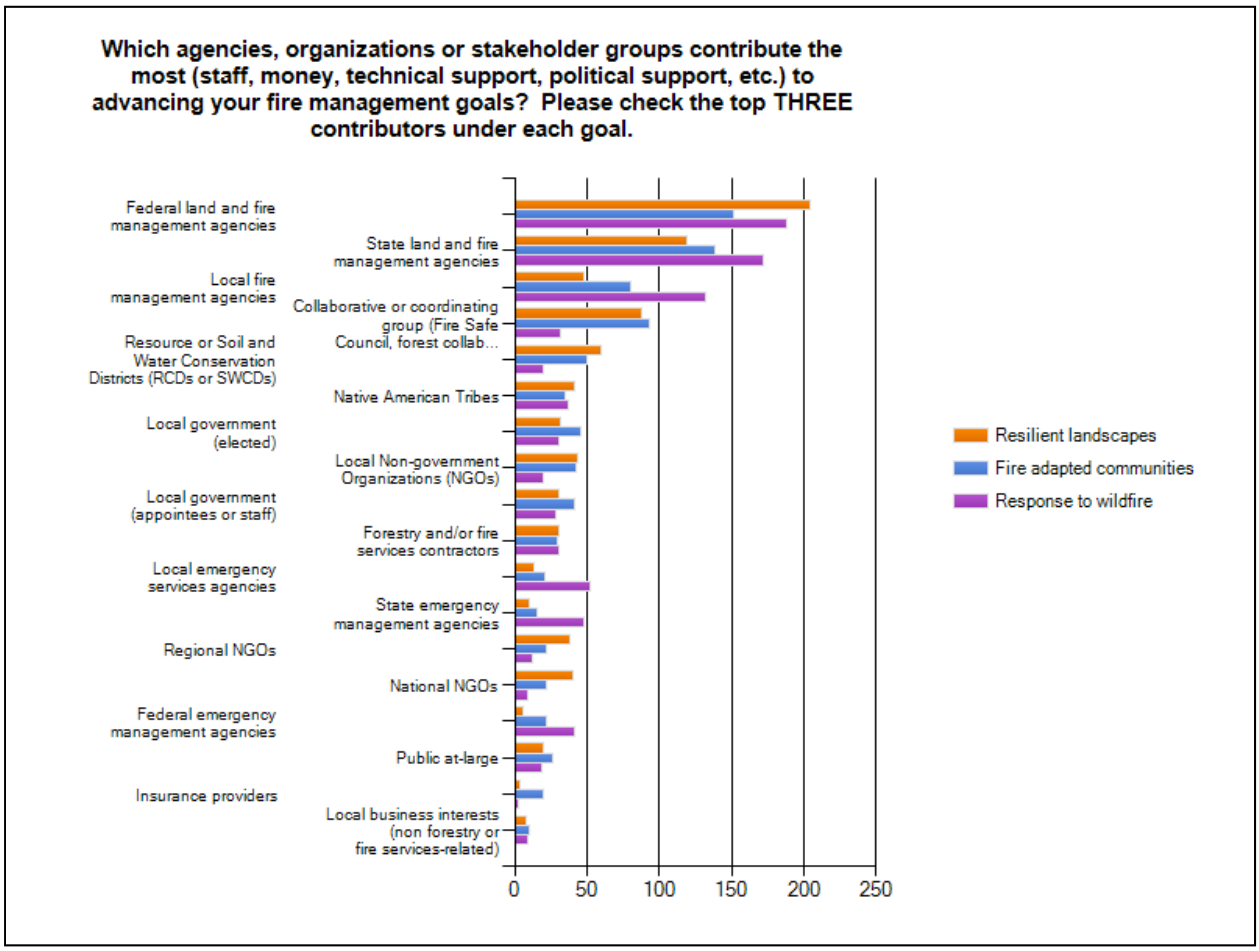

Figure 2. Relative contributions of agencies, organizations and stakeholders to fire management goals.

Table 5. Proportion of respondents indicating that they were working on especially effective or innovative fire management efforts.

18. Are you currently working on any fire management strategies that you would consider especially effective or innovative that you believe would be helpful to advancing other community-based fire management efforts around the west?		
Answer Options	Response Percent	Response Count
Yes	49.8%	150
No	32.2%	97
Unsure	17.9%	54
If yes, please describe the nature of your strategy		148
answered question		301
skipped question		214

Appendix B: Assessment Instrument

1.

Western communities have been learning and taking deliberate actions to better live with wildfire for decades now. As a practitioner engaged in community fire management, you have valuable insights into how federal policies and programs can support your work in creating more fire adapted communities, fire resilient landscapes, and improving response to wildfires when they do happen. This assessment is designed to capture your perspectives and insights, to better inform federal policy and programs in support of fire management in Western communities.

The survey should take approximately 30 minutes. If you'd like to complete it over multiple sessions, your results will be saved and you'll automatically return to where you left off. Thanks so much for taking the time!

***1. For the purposes of this assessment, what type of entity are you representing?**

- ◯ Federal government
- ◯ State government
- ◯ County government
- ◯ Local municipal government
- ◯ Tribal government
- ◯ Local fire department
- ◯ Regional or national non-governmental organization (NGO)
- ◯ Local NGO
- ◯ Collaborative or coordinating group
- ◯ University
- ◯ Private company
- ◯ Individual citizen (I represent myself)
- ◯ Other (please specify)

2. US Fire Management Policy focuses on three long-standing goals;

1.) Resilient landscapes - Focused on planning for and implementing strategic reduction of hazardous fuels, ecological restoration, and other vegetation management for the purposes of creating landscape conditions that can accommodate wildfire without uncharacteristic effects.
2.) Fire adapted communities - Focused on community wildfire protection planning, protecting the wildland urban interface, community fire awareness and education campaigns, evacuation and emergency response planning, ensuring defensible space around homes, fire safe building codes, etc.
3.) Response to wildfire - Focused on fast, safe and effective wildfire management and suppression, inter-agency coordination, training, provisioning fire management resources such as engines, contractors, air tankers, personnel, etc.

Which goals are you working on (check all that apply)?

- ☐ Resilient landscapes
- ☐ Fire adapted communities
- ☐ Response to wildfire

2. Geography

3. At what geographic scales are you working on fire management goals? (check all that apply)

	Landscape resilience	Fire adapted communities	Response to wildfire
Community (town or city)	☐	☐	☐
Wildland urban interface	☐	☐	☐
Multiple community (coordinated)	☐	☐	☐
County	☐	☐	☐
Multi-county region	☐	☐	☐
Watershed	☐	☐	☐
Bio-region	☐	☐	☐
"Landscape-scale" physical region (larger than 50,000 acres)	☐	☐	☐
State	☐	☐	☐
Multi-state	☐	☐	☐

Other (please specify)

4. Is your work on the following fire management goals cross-jurisdictional (ie. spanning ownership, governmental or social boundaries)?

	Yes	No	Not sure
Landscape resilience	☐	☐	☐
Fire adapted communities	☐	☐	☐
Response to wildfire	☐	☐	☐

3. Leadership

In considering leadership, focus on those organizations or individuals who serve as coordinators, conveners, facilitators, or in key staffing rolls for fire management efforts.

5. Who provides leadership for advancing fire management goals in your local area? (Check all that apply)

	Landscape resilience	Fire adapted communities	Response to wildfires
Federal land and fire management agencies	☐	☐	☐
Federal emergency management agencies	☐	☐	☐
State land and fire management agencies	☐	☐	☐
State emergency management agencies	☐	☐	☐
Resource or Soil and Water Conservation Districts (RCDs or SWCDs)	☐	☐	☐
Watershed Councils	☐	☐	☐
Local fire management agencies	☐	☐	☐
Local emergency services agencies	☐	☐	☐
Native American Tribes	☐	☐	☐
Insurance providers	☐	☐	☐
Local government (elected)	☐	☐	☐
Local government (appointees or staff)	☐	☐	☐
Local Non-government Organizations (NGOs)	☐	☐	☐
Regional NGOs	☐	☐	☐
National NGOs	☐	☐	☐
Local business interests (non forestry or fire services-related)	☐	☐	☐
Forestry and/or fire services contractors	☐	☐	☐
Collaborative or coordinating group (Fire Safe Council, forest collaborative group, community planning group, or other collaborative planning groups)	☐	☐	☐
Public at-large	☐	☐	☐

Other (please specify)

6. To what extent do you find the leadership arrangements currently in place for the various fire management goals to be effective or ineffective? (If you are working in multiple geographic areas, please answer for the efforts that you consider representing your "local" geography.)

	very effective	somewhat effective	neither effective, nor innefective	somewhat ineffective	very innefective	N/A
Landscape resilience	○	○	○	○	○	○
Fire adapted communities	○	○	○	○	○	○
Response to wildfire	○	○	○	○	○	○

Reccomendations for improvement

4. Participation, organization and partnerships

7. Which of the following are participating in advancing fire management goals in your local area?

	Landscape resilience	Fire adapted communities	Response to wildfire
Federal land and fire management agencies	☐	☐	☐
Federal emergency management agencies	☐	☐	☐
State land and fire management agencies	☐	☐	☐
State emergency management agencies	☐	☐	☐
Resource or Soil and Water Conservation Districts (RCDs or SWCDs)	☐	☐	☐
Watershed Councils	☐	☐	☐
Local fire management agencies	☐	☐	☐
Local emergency services agencies	☐	☐	☐
Native American Tribes	☐	☐	☐
Insurance providers	☐	☐	☐
Local government (elected)	☐	☐	☐
Local government (appointees or staff)	☐	☐	☐
Local Non-government Organizations (NGOs)	☐	☐	☐
Regional NGOs	☐	☐	☐
National NGOs	☐	☐	☐
Local business interests (non forestry or fire services-related)	☐	☐	☐
Forestry and/or fire services contractors	☐	☐	☐
Collaborative or coordinating group (Fire Safe Council, forest collaborative group, community planning group, or other collaborative planning groups)	☐	☐	☐
Public at-large	☐	☐	☐

Other (please specify)

8. Please list the formal or informal agreements (inter-agency agreements, contracts, memorandums of understanding, etc) that are most important for facilitating coordinated, efficient and effective fire management in your local area.

1.)
2.)
3.)
4.)
5.)
6.)
7.)

9. How important or unimportant are partnerships to your fire management efforts?

very important	somewhat important	neither important, nor unimportant	somewhat unimportant	very unimportant
○	○	○	○	○

10. Please rate the relative importance or unimportance of the following barriers to building and maintaining effective partnerships for advancing fire management goals in your local area.

	very important	somewhat important	neither important, nor unimportant	somewhat unimportant	very unimportant
Lack of staff resources	○	○	○	○	○
Lack of financial resources	○	○	○	○	○
Lack of working relationships between relevant organizations/stakeholders	○	○	○	○	○
Lack of trust between relevant organizations/stakeholders	○	○	○	○	○
Leadership inadequate	○	○	○	○	○
Legal or jurisdictional responsibilities impede effective partnerships	○	○	○	○	○

Please list any additional "somewhat important" or "very important" barriers you've observed.

5. Resources in support of the three goals of fire management

In this section, please answer for either the entity you represent or the broader partnerships you participate in. Especially where other partner entities might be the primary recipient of resources in support of your coordinated fire management efforts.

11. Please indicate which funding sources or resources you have accessed in support of fire management in your local area. Check all that apply.

- [ ] Volunteer Fire Assistance
- [ ] State Fire Assistance (represented by a diversity of state-administered grant programs, depending upon state)
- [ ] Rural Fire Assistance
- [ ] Reimbursement for Firefighting on Federal Property
- [ ] Fire Management Assistance Grant Program (FMAGP)
- [ ] Predisaster Mitigation Competitive (PMD)
- [ ] Hazard Mitigation Grant Program (HMGP)
- [ ] Assistant to Firefighter Grant (AFG) Program
- [ ] Staffing for Adequate Fire Emergency Response Grants
- [ ] Assistance to Firefighter Station Construction Grants (SCG-ARRA)
- [ ] Interoperable Emergency Communication Grant Program (IECGP)
- [ ] Collaborative Forest Landscape Restoration Program (CFLRP)
- [ ] Forest Service Community Protection Grants
- [ ] Western Area Competitive Wildland Urban Interface Grants
- [ ] EPA performance partnerships grant,
- [ ] Bureau of Indian Affairs (BIA) compact,
- [ ] BIA 638 contract
- [ ] Legislative demonstration project,
- [ ] Natural Resource Conservation Service grants or agreements,
- [ ] US Fish and Wildlife Service grants
- [ ] National Fire Plan grants
- [ ] Retained receipts from stewardship contracts
- [ ] Goods for services from stewardship contracts
- [ ] State-funded grant programs (beyond federally funded State Fire Assistance)
- [ ] Private foundation grants
- [ ] Federally chartered foundation grants (National Forest Foundation, National Fish and Wildlife Foundation, etc.)
- [ ] Private donations
- [ ] Private contracts with landowners, municipalities, or states

☐ Volunteers/in-kind services

Other (please specify)

12. Which three funding sources are most important in supporting your fire management efforts? Please list according to the order of their importance.

1.)

2.)

3.)

13. Please rate the following sources of technical information, assistance and guidance according to their relative importance or unimportance to your fire management efforts.

	very important	somewhat important	neither important, nor unimportant	somewhat unimportant	very unimportant
Direct technical assistance from government personnel	○	○	○	○	○
Direct technical assistance and services from private consultants	○	○	○	○	○
Direct technical assistance and services from NGOs	○	○	○	○	○
Publicly available guidebooks	○	○	○	○	○
Websites and online portals	○	○	○	○	○
Online journals, reports or newsletters	○	○	○	○	○
Print journals, reports or newsletters	○	○	○	○	○
Peer-to-peer exchanges (workshops, conferences, etc.)	○	○	○	○	○
Personal or organizational networks	○	○	○	○	○

Other (please specify realtive importance or unimportance)

14. Which agencies, organizations or stakeholder groups contribute the most (staff, money, technical support, political support, etc.) to advancing your fire management goals? Please check the top THREE contributors under each goal.

	Resilient landscapes	Fire adapted communities	Response to wildfire
Federal land and fire management agencies	☐	☐	☐
Federal emergency management agencies	☐	☐	☐
State land and fire management agencies	☐	☐	☐
State emergency management agencies	☐	☐	☐
Resource or Soil and Water Conservation Districts (RCDs or SWCDs)	☐	☐	☐
Local fire management agencies	☐	☐	☐
Local emergency services agencies	☐	☐	☐
Native American Tribes	☐	☐	☐
Insurance providers	☐	☐	☐
Local government (elected)	☐	☐	☐
Local government (appointees or staff)	☐	☐	☐
Local Non-government Organizations (NGOs)	☐	☐	☐
Regional NGOs	☐	☐	☐
National NGOs	☐	☐	☐
Local business interests (non forestry or fire services-related)	☐	☐	☐
Forestry and/or fire services contractors	☐	☐	☐
Collaborative or coordinating group (Fire Safe Council, forest collaborative group, community planning group, or other collaborative planning groups)	☐	☐	☐
Public at-large	☐	☐	☐

Other (please specify which of the three fire managment goal they contribute to)

15. Please rate the relative importance of the following lines of communication in learning about new developments (new programs or policies, funding opportunities, guidebooks, web portals, best practices or innovations) in support of your fire management efforts?

	very important	somewhat important	neither important, nor unimportant	somewhat unimportant	very unimportant
Listservers	○	○	○	○	○
Websites or online portals	○	○	○	○	○
Web searches	○	○	○	○	○
Webinars	○	○	○	○	○
Personal email or phone communications	○	○	○	○	○
Word of mouth	○	○	○	○	○
In-person meetings (workshops, conferences, etc.)	○	○	○	○	○

Other (please specify relative importance or unimportance)

6. Monitoring, evaluation, learning and adaptive managment

16. Do you participate in any form of formal monitoring, evaluation, learning or adaptation processes related to your fire management efforts?

- ☐ Yes
- ☐ No
- ☐ Unsure

If yes, please describe.

17. Please share the most valuable lesson learned from your experiences working on the three goals of fire management (resilient landscapes, fire adapted communities, response to wildfire) in your local area. In your response, please be sure to indicate why you were able to realize the success (ie. specific funding, partnerships, leadership, authority, innovation, etc.).

18. Are you currently working on any fire management strategies that you would consider especially effective or innovative that you believe would be helpful to advancing other community-based fire management efforts around the west?

- ☐ Yes
- ☐ No
- ☐ Unsure

If yes, please describe the nature of your strategy

7. Fire management going forward

19. In 2009, Congress ordered US fire managers to create a new "National Cohesive Wildfire Management Strategy." Teams have been working at the national and regional-level over the last two years to craft this strategy. Have you been engaged in that process, and If so, please briefly describe how you've been engaged.

- [ ] Yes
- [ ] No
- [ ] Unsure

If yes, how have you been engaged

20. In your opinion, what is the most significant impediment to efficient and effective community fire management going forward?