



Introduction

The California Landscape Conservation Cooperative (CA LCC) strategic planning process is a multi-phase effort to define the focus of CA LCC resources and activities, and to maximize conservation benefits across the CA LCC. This report describes the findings and preliminary conclusions from an interview process with Steering Committee members representing management agencies and organizations and front line resource managers who are making decisions on conservation within the CA LCC geographic area. This was a second set of interviews CA LCC staff conducted, herein referred to as Phase II, to better understand the decisions being made by conservation practitioners and promote scientific information that will assist in those decisions.

The ultimate goal is to develop a Strategic Plan that identifies a set of common conservation objectives for the CA LCC. With direction from the Steering Committee and information from these multi-phase data collection efforts, a Strategic Planning Team will identify how the CA LCC will meet those objectives including measurements of success.

Background - Phase I

Phase I of the strategic planning process began in fall 2011 and focused on discussions with various conservation partnerships in the CA LCC project area. The overriding theme that emerged from the interviews and across all categories of questions was the need and desire of improved communication and information exchange among LCC partners to increase effectiveness of conservation by bridging the gap between science and management. While this theme was expressed in different individual statements, when taken as a collection of insights, a majority of interviewees stated that CA LCC can play a critical role in communicating science and information among researchers and resource managers across the LCC. The summary report from that effort is available on the CA LCC website at: http://californialcc.org/docs/materials/12_15_11_summary_report.pdf.

Phase II

Phase II began in the spring of 2012 and CA LCC staff met with in-field resource managers from various State and Federal organizations and management members of the CA LCC Steering Committee. The purpose of this phase was to identify the common landscape scale conservation objectives of our management partners and better understand the on-the-ground natural resource management decisions being made. Ideally, this background information will help inform the type of science that CA LCC will focus on and reveal potential objectives the CA LCC can pursue across its project area.

In March 2012, CA LCC staff interviewed CA LCC Steering Committee representatives from the following organizations:

- California Department of Fish and Game
- California Department of Water Resources
- California State Coastal Conservancy
- US Forest Service
- US Fish and Wildlife Service
- US Bureau of Reclamation
- National Marine Fisheries Service

- Natural Resources Conservation Service
- National Park Service
- The Nature Conservancy

Between April and May 2012, CA LCC staff interviewed resource manager representatives from the following agencies:

- California Department of Fish and Game
- California Department of Water Resources
- California State Coastal Conservancy
- US Forest Service
- US Fish and Wildlife Service
- US Bureau of Land Management
- National Marine Fisheries Service
- Natural Resources Conservation Service
- National Park Service

Some interviews were with single individuals. Other interviews include multiple participants from a single organization. Collectively, 14 representatives participated in the Steering Committee interviews and 12 representatives participated in the resource manager interviews. See Attachment A for a specific list of interview participants.

At the beginning of each interview, CA LCC staff described the purpose and approach for the interview process. Similar to Phase I, CA LCC used a standard set of questions for each interview (Attachment B). The standard questionnaire included three general categories of questions similar to Phase I:

- Conservation Objectives
- Management Actions and Decisions
- Information Exchange

To ensure the greatest range of individual responses and not influence participant input, the interview process was conducted with narrative questions and answers rather than a standardized multiple choice format. All interviews were digitally recorded and a neutral note-taker wrote real time summaries of participants' responses. These summaries were reviewed by the LCC staff that lead each interview to ensure shared understanding and accuracy in content.

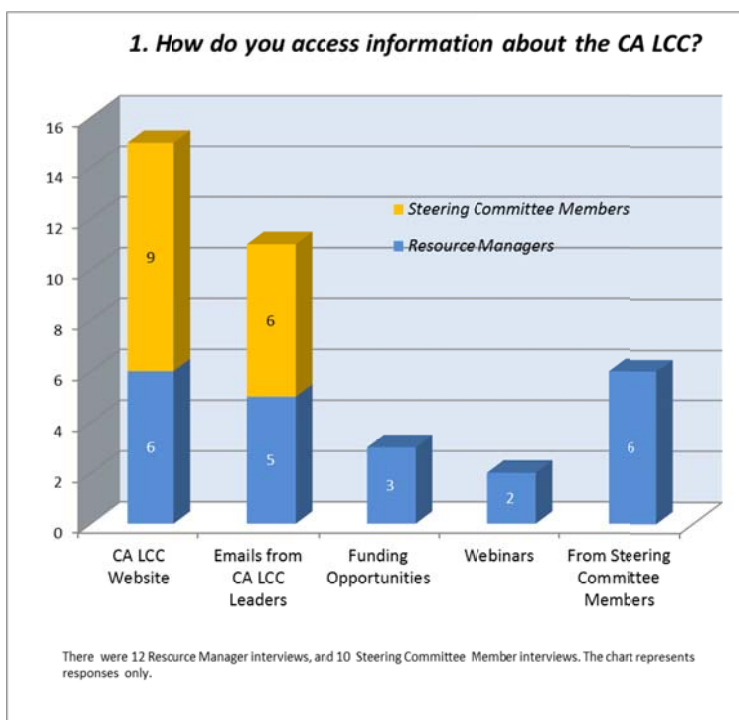
Findings and Conclusions

For each question summary below, CA LCC staff has provided findings and preliminary conclusions. The conclusions are intended to be used as an overall assessment of the current "lay of the land" to elicit discussion and leadership by the Steering Committee.

Interviewees did not necessarily respond to each question and the responses are not quantified statistically. Rather, responses are aggregated and emphasis is given to topics reflecting common interests and perspectives of the interviewees or conversely, a lack of any common perspectives. These perspectives are generally described in "qualitative" terms (e.g. "a majority of participants said "X," "a small minority of participants believe "Y").

Question 1: What do you know about the CA LCC? What ways do you access information about the CA LCC? Do you visit the CA LCC website?

Almost all Steering Committee members are aware of the website, use it to varying degrees, and share that source with/encourage its use by their resource manager colleagues. Likewise, Steering Committee members and resource managers regularly receive emails from CA LCC staff. Conversely, resource managers are aware of the website however a large majority use it infrequently or not at all. Slightly less than a half of the resource managers track CA LCC information from emails sent to them.



Findings: The website is an effective tool to maintain and increase CA LCC awareness. It is not being used much beyond the CA LCC partners that have intimate involvement with the development and leadership of the LCC. It appeared as though Steering Committee members are providing good communication on CA LCC within their respective agencies.

Preliminary Conclusions: The website could be modified (as informed by strategic planning discussions and potentially a CA LCC communication committee) to increase visitor frequency and use. To meet our goals, the CA LCC website should help support the availability and use of applicable climate science and conservation related information. The current website may not be serving that purpose effectively enough. Results presented later in this report reflect a majority desire by interviewees for web-based delivery of applicable information. This could be supported and tested by optimizing the CA LCC website to serve that role.

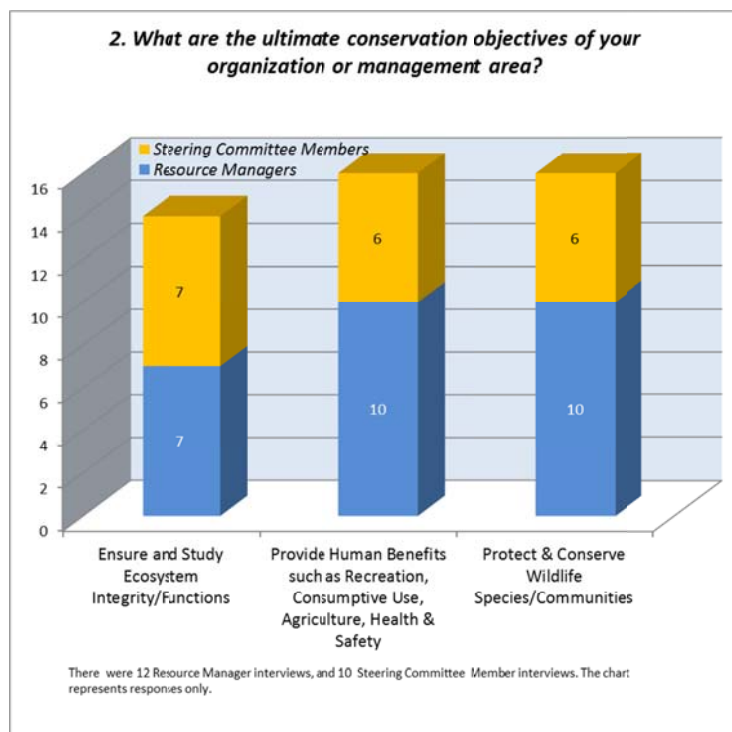
Steering Committee members are effective ambassadors for the CA LCC. The CA LCC needs to find more opportunities to allow Steering Committee members to advocate and speak on behalf of the LCC.

Question 2: What are the ultimate conservation objectives of your organization or management area?

The most common objectives were variations on the following themes:

- Ensure ecosystem integrity and function
- Human benefits (e.g. recreation, consumptive use, agriculture, health and safety, etc.)
- Protect wildlife species and communities

A large majority of the resource managers identified conservation objectives within each of themes, with a particular emphasis on providing for human benefits and protecting wildlife species and communities.



Findings: When organized in broad conservation objective themes, it appears many of the CA LCC organizations have similar goals and values. Yet, there was significant diversity in the examples most participants used to illustrate their objectives and this diversity reflects their respective organization’s missions and responsibilities. For instance, while almost all resource managers identified providing human benefits as a priority, the examples of what is meant by this ranged from ensuring health and safety from a flood event, to providing recreational opportunities, to maintaining balanced yields from fishing areas. Likewise, participants commonly want to ensure ecosystem functions and protect wildlife species and populations however the examples they gave reflect the significant geographic and ecological diversity of the lands and waters of California and its coastal environs. No specific ecosystem, ecosystem function, or set of emerged as a common objective to protect.

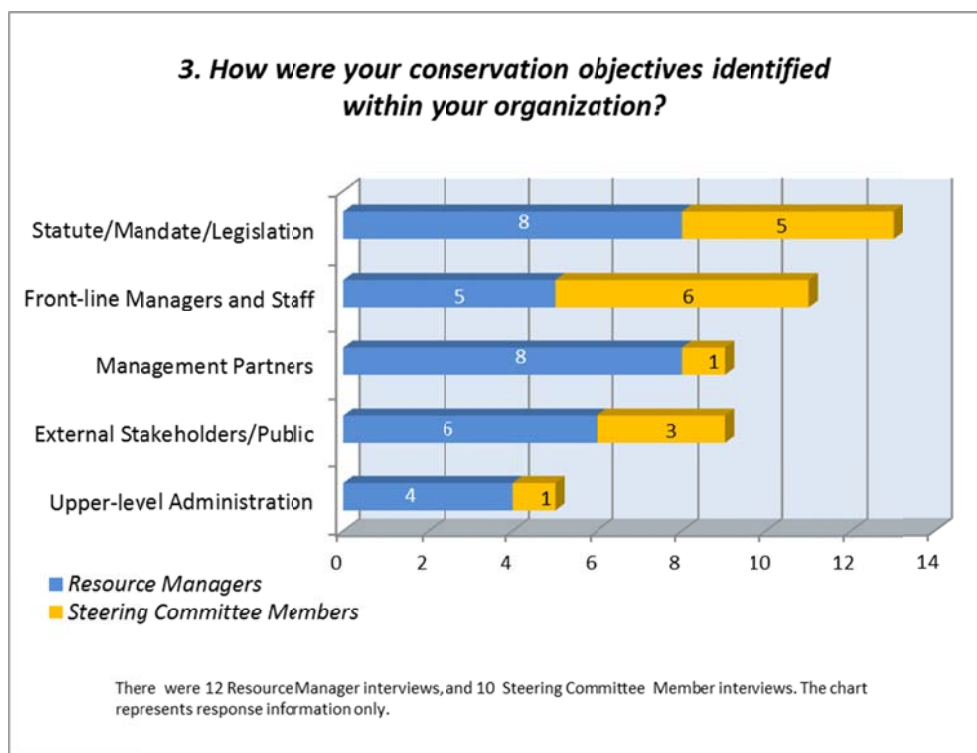
Preliminary Conclusions: The range and diversity of conservation objectives may illustrate the geographic diversity of California, in concert with the diversity of these organizations. The CA LCC will need to take leadership in identifying specific but unifying conservation

objectives that will best serve California’s conservation community. The task will be to define the focus for the CA LCC as a whole and not necessarily individual agency or organizations goals.

Question 3: *How were your conservation objectives identified within your organization, and how much influence did on-the-ground managers have in setting those as opposed to coming down from higher-level*

A large majority of the resource managers commonly referred to statutes, mandates, and legislation and their management partners as the greatest influence to identify their conservation objectives. Slightly over half referred to external stakeholders as a source to identify objectives. Slightly less than half mentioned upper-level administrators, and staff (respectively) as the source to identify objectives.

Many the Steering Committee members attributed front-line managers as an influence to setting objectives, and slightly less than half also referred to statutes, mandates, and legislation. Some also mentioned mid-level managers, and external stakeholders / public has having an influence. Conversely, and different from the responses by resource managers, very few Steering Committee members acknowledged a role of management partners or upper-level management to identify their conservation objectives.



Findings: There is a common perspective among both groups that statutes, mandates and legislation are the major influence to agencies setting their objectives. There is some correlation between resource managers and Steering Committee members from the same organization however, it appears this relationship is not uniform. For example, in several instances, individuals from the same organization had differing perspectives about how conservation objectives are identified and the relative levels of influence each group has in

these decisions. Similarly there is a clear difference of perspective as to whether other influences are primarily top-down or bottom-up.

Preliminary Conclusions: The different perspectives may simply reflect the different role Steering Committee members (who are generally in planning and leadership positions) have versus that of on-the-ground managers. It likely also illustrates the significant diversity of decision-making processes within and between CA LCC organizations, even though they have similar conservation missions. As CA LCC decisions are made and communicated, resource managers, other managers, and the Steering Committee members, need a clear understanding of the decision making process of each organization.

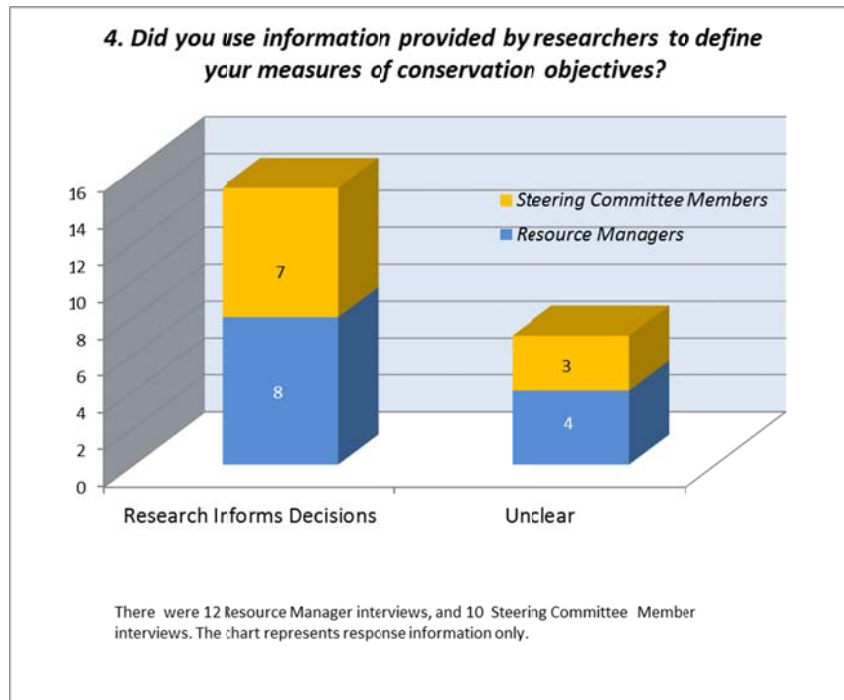
The fact that a majority of responses identified partners as influencing conservation objectives may be an opportunity for CA LCC in identifying and influencing the highest priority objectives across the landscape. Additionally, it should be noted by CA LCC leadership that a most effective means for changing conservation objectives within agencies or organization (if desired) would be through legislation/mandates.

Question 4: *Did you use information provided by researchers to define your measures of conservation objectives? If so, how? Higher-level administration? Who were the partners you worked with to help you define your conservation objectives?*

Most of the resource managers stated that research informs their conservation objectives in various ways. A small minority said that research occasionally informs their conservation objectives. About one quarter were unclear how they integrate research into their operations. A wide range of examples were provided on how this information is used by respective organizations and similarly, the types of partners they work with. Examples ranged from the use of research information to define objectives as part of a strategic planning process to the use of research to develop management plans for specific geographic areas, habitats, and species. Other examples included the use of research to influence funding decisions for various projects, and the use of research to prioritize actions that are statutorily required.

Most Steering Committee members identified research having a role defining measures for conservation objectives, yet no one stated it regularly occurs. Steering Committee members described a range of methods through which research information is used regarding conservation objectives however none of the responses made specific references to such research uniquely defining objectives, nor measures for these objectives.

A majority of resource managers and Steering Committee members indicated an interest and willingness to increase the role of researchers in future decision making about conservation objectives.



Findings: Research is being used in various degrees to inform conservation objectives and adaptive management. Most participants would like to increase the use of research in both the conservation objectives planning process and in measuring success of conservation objectives with management actions considering climate change and/or other stressors.

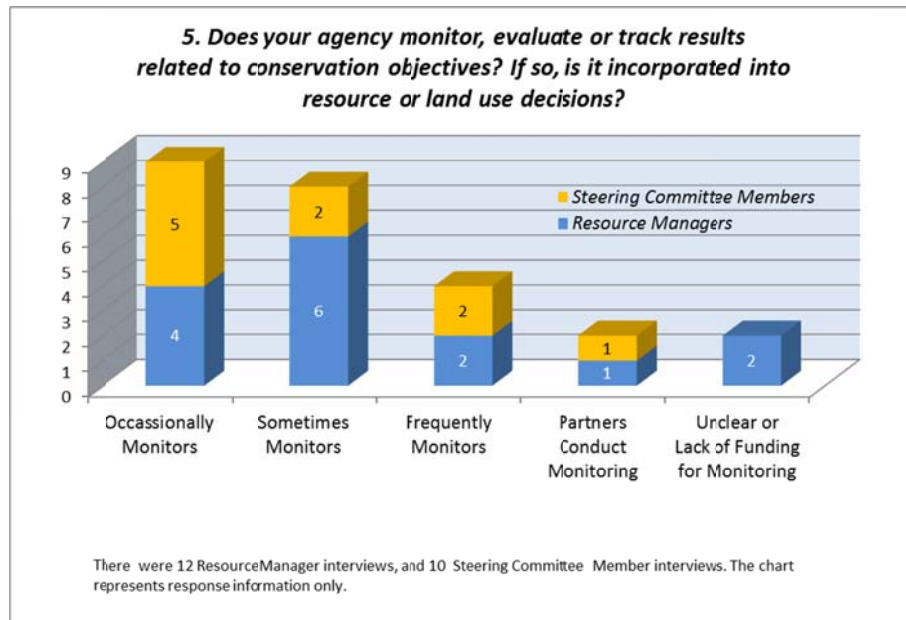
Preliminary Conclusions: The CA LCC could take a strategic approach to provide guidance, training, and support in this area to standardize and incorporate research in developing conservation objectives and associated measures / metrics.

Question 5: *In regard to each of your conservation objectives, does your agency monitor, evaluate or track results? If so, is it incorporated into resource or land use decisions?*

Half of the resource managers identified that monitoring sometimes occurs. A very small minority in each group identified that monitoring often occurs. When directly answering whether or not the monitoring information is incorporated into decisions, the managers responded that monitoring data was seldom incorporated into subsequent management decisions.

Only two of the Steering Committee members stated that monitoring occurs sometimes with an equal number stating it occurs often. Less than half said results are incorporated into subsequent management decisions.

None of the resource managers or Steering Committee members provided specific and prolonged examples where monitoring is an embedded aspect of resource land use decisions. Yet, a majority of the groups indicated an interest to incorporate monitoring and adaptive management into future decision making.



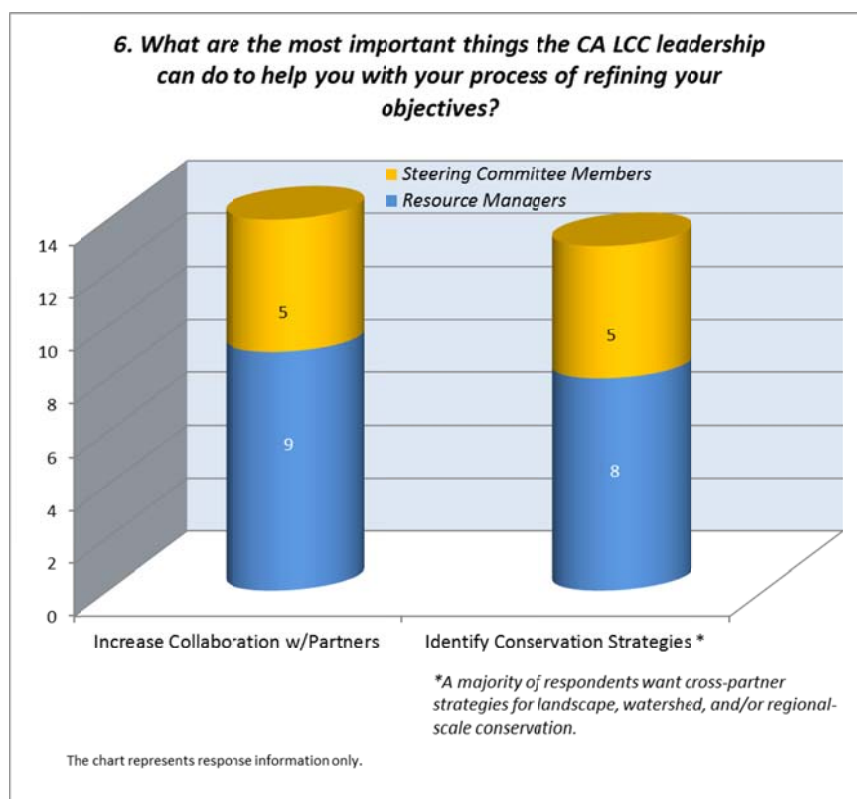
Findings: The lack of data with which to support the conservation objectives, decision making process and/or tracking changes over time (including success or failure) appears to be a major information gap for those interviewed, and may translate into a role for the CALCC. From these responses either data is not available or it's not being used (or its use is not of widespread knowledge).

Preliminary Conclusions: Due to inherent economic limitations conservation organizations appear to have made decisions for many years with an absence of monitoring information. Though resource managers and agency leaders have interest in monitoring and adaptive management they do the best they can in absence of information. There may be a role for the CA LCC to help resource managers incorporate adaptive management in their daily decisions.

Question 6: *What are the most important things the CA LCC leadership can do to help you, if at all, with your process of refining your objectives?*

Two common themes emerged from the groups

- Support for collaboration among partners (including but not limited to methods such as workshops, enhanced communication tools, and outreach).
- Assistance identifying effective conservation strategies in particular at the landscape and watershed scale (including cross-partner collaboration) and focusing on topics such as climate change, adaptive management, and measures for success. Responses in this category by resource managers included connecting goals across the landscape from the Sierras to the coast.



Findings: The response that reflected the greatest majority of perspectives was the interest for more consistent collaboration among partners. Related to that, there was desire by resource managers for support on conservation strategies at landscape and watershed scales. Similarly, managers also recognize that stressors not related to climate change, including land-use change, require conservation actions that span jurisdictional and geographic boundaries.

Preliminary Conclusions: No single management organization is likely to achieve success alone when the scale of change and action exceeds any individual organization's jurisdictional boundaries. The majority of responses recognizing the benefits of working together is encouraging and thus not necessarily a message that CA LCC needs to emphasize among the conservation community. Along with assisting in defining landscape conservation strategies, a major role for CA LCC may be to link organizations and agencies where overlap or commonality exists (whether its common objectives or actions) so that they can more effectively pursue cross jurisdictional conservation solutions and can simultaneously create a better shared understanding.

Question 7: What actions are you taking to achieve your conservation objectives?

Responses to this question resulted in six major categories of actions that are listed in order of popularity:

- Management Actions and Planning (including addressing physical disturbances, and modifying use to avoid disturbances)
- Land Acquisition
- Public Education and Outreach

- Restoration, and
- Incentives and Regulations

For the resource managers, the largest majority described management actions and planning as the primary physical and technical actions they are taking with a slightly smaller majority also identifying land acquisition. Slightly under half of the managers also identified restoration as a major action.

The responses from the Steering Committee were similar to the resource managers with a large majority referring to management actions and planning as their primary effort to achieve their conservation objectives. Half of the members identified restoration as a key action with slightly less than half also identifying land acquisition.

Regarding the category of outreach and education actions, a large majority of resource managers and slightly less than half of the Steering Committee members identified various examples as a major, but different set of actions they take to achieve their conservation objectives.



Findings: The participants’ focus on management and planning actions likely reflects the methods and responsibilities that are most common, accessible, and expected of them and their organizations. They probably have available budget to develop management plans and recommendations whereas land acquisition and restoration likely require different sources of money and decision protocols that are less common or easily achieved. That said, there also seems to be a slight trend between this response and the responses to other questions related to land acquisition particularly as related to goals of corridor management, and habitat connectivity. Lastly, the two categories of actions reflect a two-pronged approach many organizations are taking wherein they are using applied methods to address challenges “on the ground” and simultaneously using external methods to educate their constituents about conservation objectives, presumably to achieve long-term gains by creating public users with greater awareness and sensitivity of conservation challenges.

Preliminary Conclusions: Similar to a theme in previous conclusions, the CA LCC can play a leadership role to identify overlapping interests, authorities, regulations, and ultimately

actions that relate to or help meet conservation objectives. This will bring managers together to achieve a common goal, get agreement on what portion of the problem each can and will address, and end up with a more holistic approach to landscape conservation that is more likely to succeed.

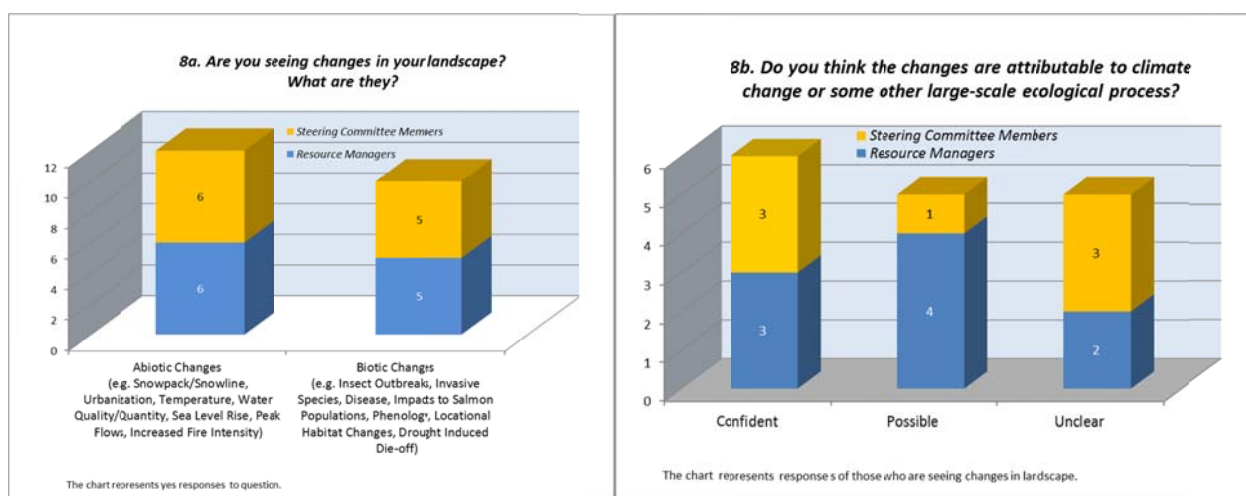
Question 8: *Are you seeing changes in your landscape? Please describe the changes. Do you think any of these are attributable to climate change or some other large-scale ecological process?*

Many different responses were recorded, at least as many different responses as interviewees. They have been combined into two main categories:

- Biotic, and/or
- Abiotic

Among resource managers and Steering Committee members, slightly less than half identified biotic changes and half referred to abiotic changes. There was significant diversity in biotic and abiotic examples cited. Biotic changes cited included insect outbreaks, invasive species, disease, impacts to salmon populations, phenology, locational habitat changes, and drought induced die offs. Examples of abiotic changes cited included snowpack / snowline conditions, urbanization, climate and temperature, water quality / quantity, sea level, peak river flows, and increased intensity of fires. Almost all of these examples were mentioned once with a handful being mentioned two or three times by either group of participants.

There was reluctance of each group to state confidently that observed landscape changes are a result of climate change. Nearly an equal number were unclear or would entertain the idea that climate change was possibly responsible for observed landscape changes.



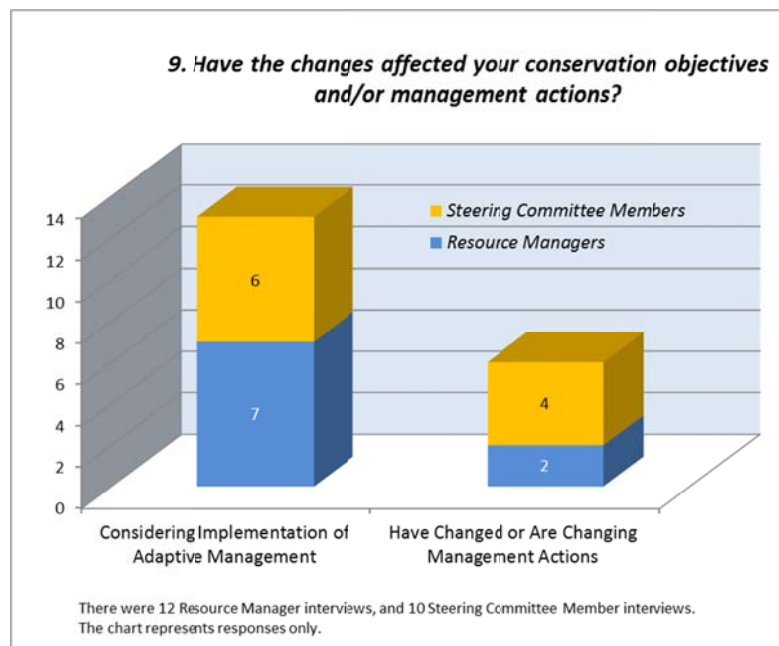
Findings: Landscape level changes are being observed but there is lack of clarity regarding the cause. The responses reflect common broad themes with diverse examples of changing landscapes possibly due to the range of the participants' geographic locations. An interesting note not reflected in the graph was that all resource managers and Steering Committee members located on or representing the coast were confident that changes they

were seeing (primarily sea level rise) was a result of climate change. Inland representatives were more likely to state that it was unclear climate change was affecting landscape changes.

Preliminary Conclusion: It is apparent that managers need support documenting and understanding changes in the landscape, as well as their causes, to better inform conservation objectives and decision making processes. This can be a unique role for the CA LCC by improving communication across agencies and organizations by sharing information and the delivering appropriate science to inform decisions (as was recommended in Phase I survey results).

Question 9: *Have the changes affected your conservation objectives and management actions? Are you tracking those changes, if so how?*

A large majority of resource managers and Steering Committee members said that landscape changes will affect their conservation objectives. However almost none of the participants report changing their conservation objectives or actions due to observed changes. Examples of the observed changes were diverse and similar to the responses in Question 8.



Findings: Little real adaptive management is taking place. This may be because organizations are struggling with how to find available information and translate it in scale and application to their specific needs. It may also be that there is little guidance or recommendations on what the best practices should be for managing within a rapidly changing environment.

Preliminary Conclusions: This could be a key role for the CA LCC. It is not surprising that most recognize the need for adapting our management actions, yet there is a clear need for understanding the best way to do that. CA LCC should be at the forefront of providing assistance in recommending processes to address stressors, landscape change, and

accelerated climate change. CA LCC should continually seek tools and methods to help conservation agencies and organizations apply adaptive management into their daily activities. Some methods may include using case studies (i.e. sea level rise) as examples to adaptive management processes, provide training for common terminology and understanding of models and their assumptions, support science that can be used as case studies, and build upon ideas developed from other areas and LCCs. There should be an established effort to track how well adaptive management is applied, where it is working and where assistance is needed.

Question 10: *What types of decisions are you making that would benefit from integrated science? (Please provide your top priority(s) and why?)*

This question was rarely answered directly or had already been addressed through other questions. Therefore, we did not summarize the data uniquely to this question.

In general, a small majority of resource managers and Steering Committee members identified ecosystem and habitat conservation plans as the main decisions they are making that could benefit from integrated science. Within both groups, a small minority also referred to wildlife conservation. A few Steering Committee members mentioned regulatory permitting and compliance.

Question 11: *What are the greatest near and long-term threats to meeting your conservation objectives, and do you intend/expect to adjust your management actions in consideration of those threats? If so, how can CA LCC leadership help you adapt in this manner?*

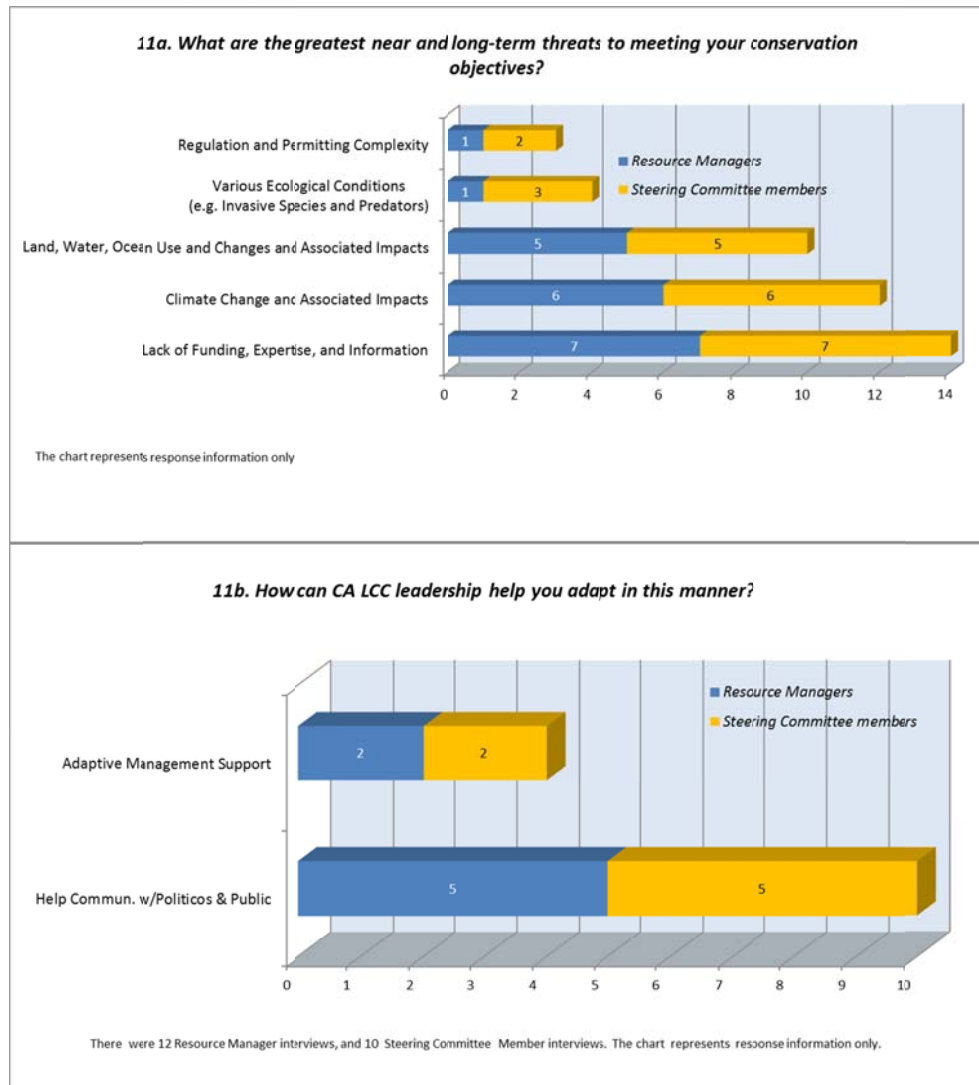
Two categories of threats emerged from the responses:

- Changes in the use of land, inland waters, oceans and the associated impacts, and
- Lack of funding, expertise, and information.

Among resource managers, half identified changes in land, inland waters, and oceans and the associated impacts as a main threat to meeting conservation objectives. Diverse examples included urbanization, habitat fragmentation and corridor interruption, habitat availability, water availability, fishing intensity, and boat strikes of marine mammals. In several cases, these changes were attributed to climate change. A majority of resource managers also identified the lack of funding, expertise, and information as the greatest threat to meeting their objectives.

Among Steering Committee members, the majority identified the lack of funding, expertise, and information as the greatest threats. A nearly equal response was attributed to land and water changes including climate change. Similar to resource managers, diverse examples were provided about the types of physical changes that pose threats.

Two areas where the CA LCC can help are with communication and adaptive management considering anthropogenic induced stressors, especially climate change.



Findings: Managers view both climate change related and other land-use change as threats, however, there is lack of clarity on how to address these combined threats. There is also lack of clarity on what the highest priority threats are or should be on the landscape related to climate change. There is an interesting need and potential pragmatism among the resource managers that public outreach and communication with elected officials will have an impact on achieving their conservation objectives. It is also interesting that climate change dominated the responses even though in question 8 many were not confidentially attributing landscape changes to climate change.

Preliminary Conclusions: Improved communication was emphasized with most interviewees. Answers may suggest that managers may benefit from a more defined and transparent approach to integrating science into the decision making process. It appears that Steering Committee members are slightly more inclined to identify climate change as an emerging threat, whereas local-scale resource managers are more cautious to make such connections.

Question 12: *What information about landscape-scale environmental changes (e.g., atmospheric, urbanization, invasive species) would help you design your management strategies and actions?*

Three shared categories of desired information emerged from the responses of both groups:

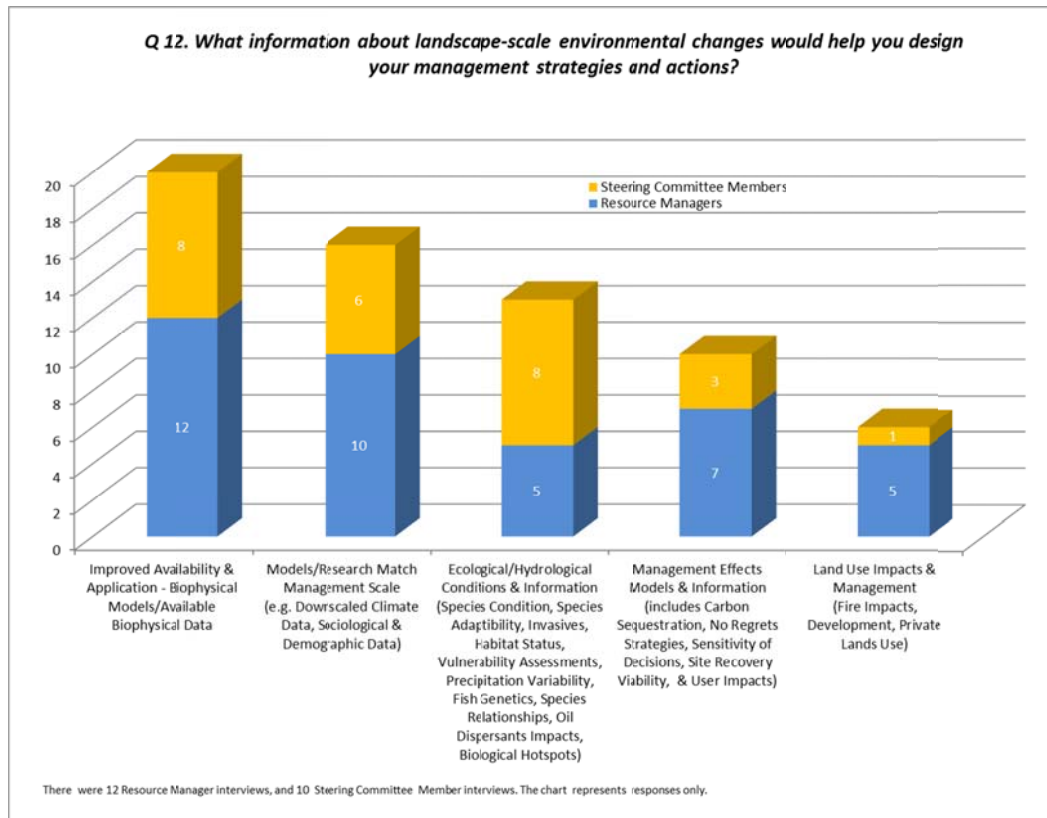
- Improved availability and application of biophysical models and biophysical data
- Models and research that match the scale of conservation management (e.g. downscaled climate data, sociological and demographic data about coastal land use)
- Information about ecological and hydrological conditions (e.g. baseline species conditions, species adaptability, invasives, habitat status, vulnerability assessments, precipitation variability, fish genetics, species relationships)

In addition, two other categories of majority responses were primarily identified by resource managers:

- Management effects models and information (e.g. carbon sequestration, “no regrets” strategies, sensitivity of decisions, site recovery viability, and user impacts)
- Land use impacts and management (e.g. fire impacts, development, and private lands use)

Among resource managers, all participants identified the need for biophysical models. There was significant diversity about the types of physical conditions they would want modeled. A very large majority of managers also identified models and research that match the scale of conservation. A majority of managers identified information and models about management effects and half of the managers also identified the need for information about ecological and hydrological conditions, and land use impacts and management.

Among Steering Committee members, a very large majority identified the need for the biophysical models with a similar majority expressing a need for information about ecological and hydrological conditions. A small majority identified a need for models and research that match the scale of conservation management. A third of the members also mentioned a need for information and models about management effects.



Findings: As with other examples in this report, the common outcome of this question is that there are unifying themes / categories of assistance that managers and leaders could benefit from and within these themes is a broad diversity of specific needs for a variety of uses. Interestingly, this was the most directly answered question. Obviously, both groups have been thinking about the types of information they need to do their jobs successfully.

Preliminary Conclusions: Managers and leaders are thirsting for data and tools to help make decisions however even where such data and tools exist, there is insufficient support and awareness on how to use it to inform management decisions. CA LCC should ensure training and/or “how to use” manuals or other applications are a part of all funded projects.

Given its not be reasonable for the CA LCC to generate information for all the items suggested it will be important for CA LCC leadership to decide which of these types of information will have the biggest effect across the landscape and reach the most interest groups.

Question 13: *What resources (e.g. scientific information /tools) do you use to inform your management decisions? Do these provide the appropriate level of detail for your purposes? If not, what level of detail, precision, and accuracy do you need?*

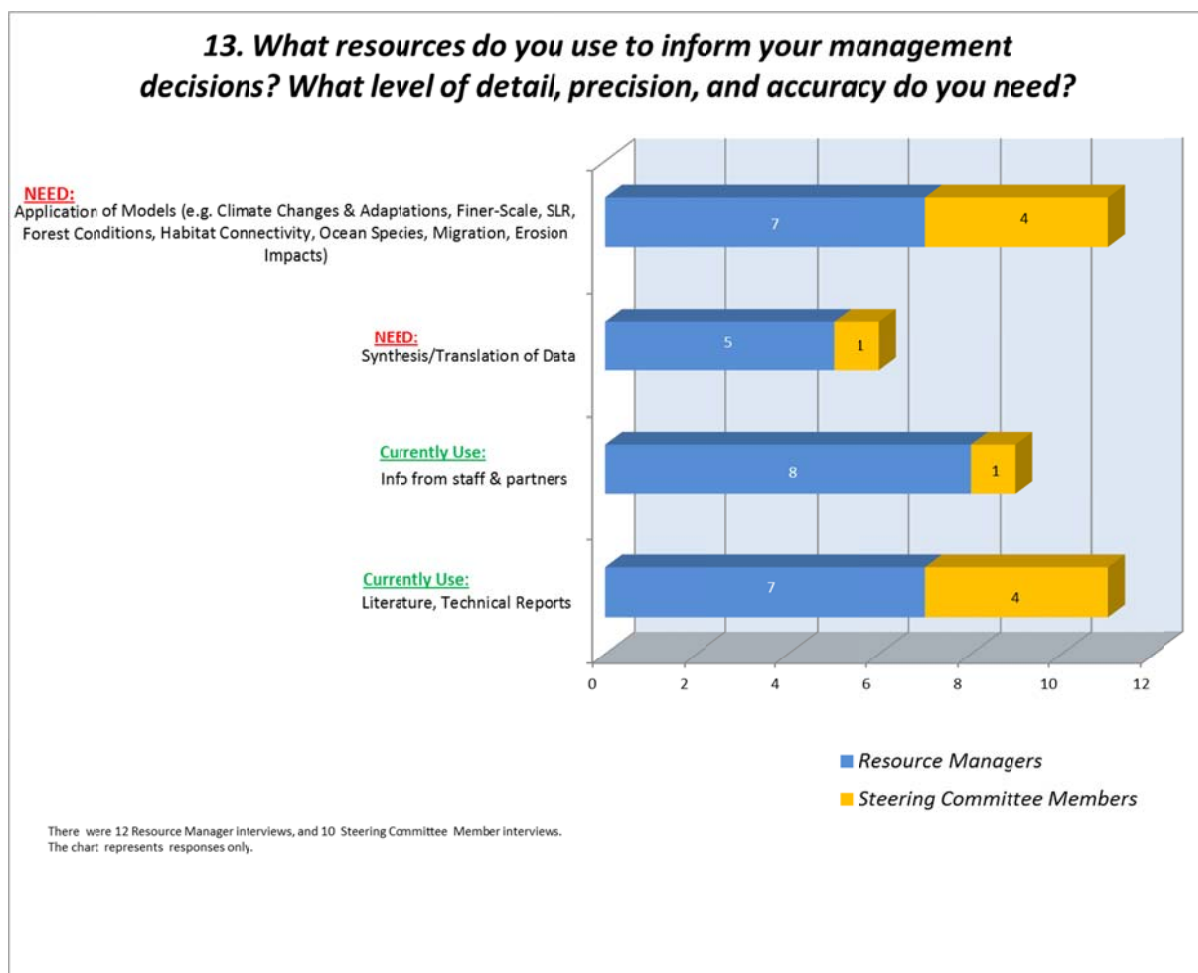
Resource managers identified the following categories of resources they use:

- Literature, technical reports (habitat and species inventories)

- Information/ knowledge / tools from staff & partners (including peer reviewed decision support tools, public outreach, networking and interaction, regional planning, and GIS support and interpretation)

Of these categories, less than half of the Steering Committee identified literature and technical reports as a main information resource.

Beyond these categories, a majority of resource managers stated that they wanted help in the translation and integration of information available. They also want (similar to responses in Question 12) to apply existing and new biophysical models and predictive models for a variety of purposes (e.g. understanding climate changes and adaptations, fine-scaled predictions, predictive sea level rise, predictive forest conditions, habitat connectivity, ocean species, migration, erosion impacts, etc.). Slightly less than half of the Steering Committee members also identified biophysical and predictive models as a priority needs.



Findings: Managers and leaders routinely use existing information and outreach methods to support their needs. Beyond these historical approaches, these individuals recognize there are more effective tools available but lack the resources (financial, time, staff) they need to access, interpret, and use relevant methods and tools.

Preliminary Conclusions: Clear responses from most interviewees stated the need for translation, interpretation, as well as understanding the application of relevant science to help management decisions. We heard that need embedded within responses to other questions but it was prominently reflected here. CA LCC can play an important role in helping synthesize and translate data. There appears to be a need to have more conversations between scientists and managers to develop the types and levels of information needed, and expand shared meaning about the tools available. This would enhance the usefulness of literature or other science products used in the decision-making process and it would help create a body of experts of both scientists and managers that can help integrate scientific information into resource management decisions.

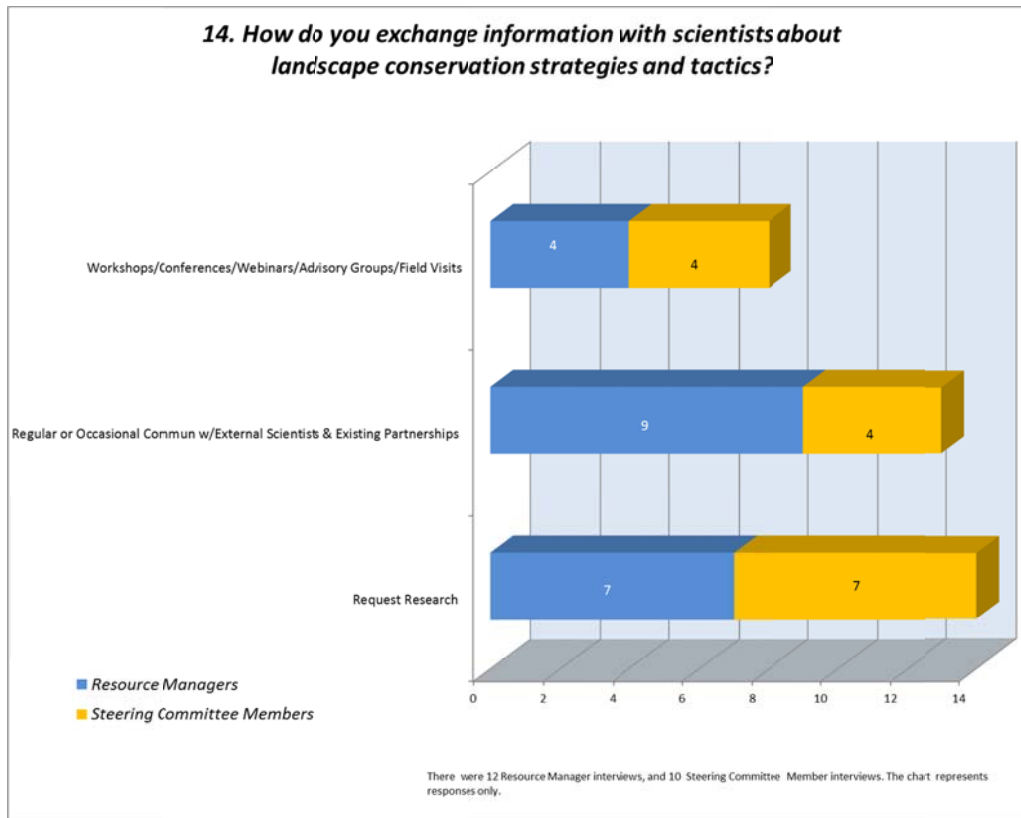
Question 14: *How do you exchange information with scientists about landscape conservation strategies, tactics? (What's preventing the ideal information exchange?) If you could spend a day with a scientist what would you talk about? What would you want them to know?*

Three main categories emerged from the responses:

- Regular or occasional communication with external scientists and existing partnerships
- Workshops / conferences / webinars / advisory groups / field visits, and similar venues
- Request research that directly influences management decisions

Among resource managers, a large majority rely on regular or occasional communication with researchers. A minority also rely on workshops, webinars, and the similar venues. Among Steering Committee members, slightly less than half rely on each of the categories. As with previous questions, the range of topics the interview participants would discuss with scientists was very diverse and may again reflect their range of geographic and organizational responsibilities.

Likewise, a majority of managers and Steering Committee members stated that they want research that directly informs management actions on topics such as downscaled models, climate system forecasts, policy impacts, vulnerability assessments, and coastal ecosystem forecasts.



Findings: Some information exchange is occurring but the majority of responders would like increased exchange. This is consistent with the findings of Question 13. In particular, the exchange should focus on discussions that lead to science that directly informs management actions.

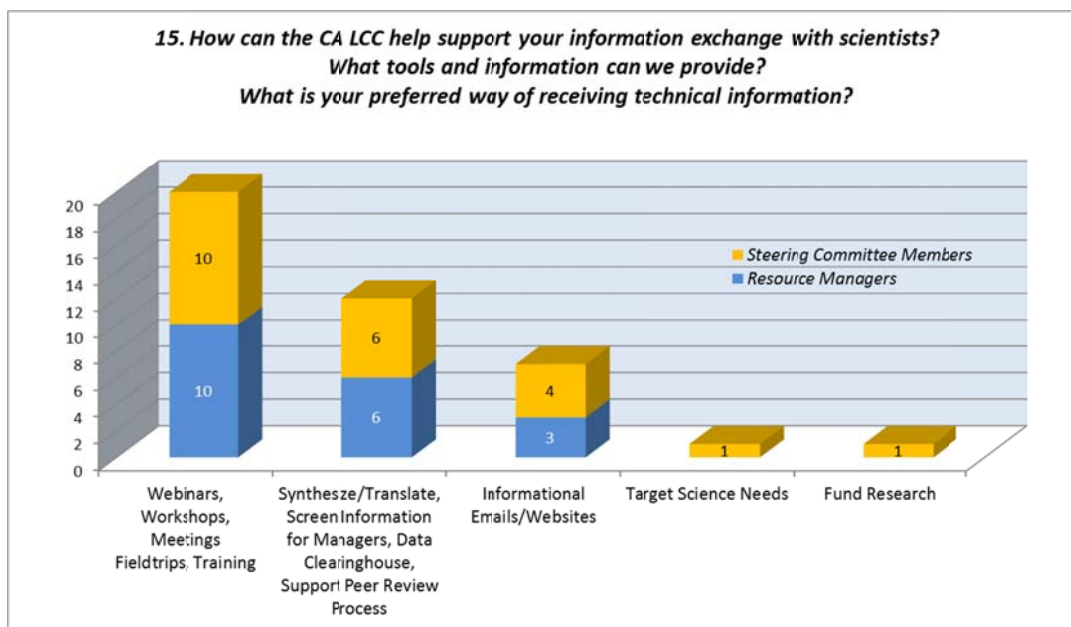
Preliminary Conclusions: An interesting discovery was to hear nearly all respondents state they are communicating with scientists yet on earlier questions there appears to be an obvious disconnect between the science and management needs. How the information is translated may be one area where communication can improve. Additionally, having resource management better define their conservation objectives should help direct applicable science.

Question 15: *How can the CA LCC help support your information exchange with scientists? What tools and information can we provide? What is your preferred way of receiving technical information (i.e., workshops, webinars, research projects, fieldtrips, training, other)?*

Similar to the feedback provided by conservation partners in Phase I, a majority of resource managers and Steering Committee members have identified a range of outreach methods to enhance and maximize the exchange of information. Majority items include the use of webinars and field trips. Another common suggestion was the use of workshops.

Other categories of support that were identified by minorities of both groups were:

- Provide informational emails / websites
- Synthesize, translate screen and manage information (e.g. act as a data warehouse, support a peer review process)



Findings: An overwhelming majority of the participants appear to support expanded outreach and information exchange venues that are in-person or virtual meetings. It is possible that the wording of the question (wherein examples were preemptively provided) may have influenced this outcome however, it does appear that there is a compelling need and desire for interaction between specialists and that this is believed to be the best way to share information and learn from each other. That said, many participants also expressed a common concern about a lack of available time and resources to participate in such venues.

Preliminary Conclusions: CA LCC can play a key role in coordinating and sponsoring various communication venues suggested by participants. CA LCC can do much of the upfront time consuming work to make information exchange efficient, relevant, and immediately useful. This will improve opportunities for learning, will enhance conservation objectives and adaptive management, and make the best use of managers and leaders time.

Summary and Next Steps

Overall, it appears many interviewees are working on present day issues and priorities and, although they desire otherwise, have not integrated climate change and other long term environmental stressors into present day activities.

Additionally, interviewees expressed diverse scientific needs across the LCC geographic area. No one entity, including CA LCC, would have the capacity to comprehensively serve them all. The CA LCC needs to take a leadership role in identifying high priority topics related to climate change and landscape

conservation and assist in applying science of those priorities through facilitation, translation, and communication venues.

Finally, there is a need for both a short term (ie, 5 years) and a long term (ie, 20-50 years) approach to the CA LCC planning horizon such that a strategic direction can be selected, discrete approaches can be focused on for specific periods of time, and the entire CA LCC process can be adaptive in subsequent years to assess benefits that were provided to the community with adjustments made when necessary and beneficial.

ATTACHMENT A
PHASE II – Interviewees and Organizations

	Steering Committee Members	Organization
1.	Armand Gonzales	CA Department of Fish and Game
2.	Kevin Hunting	CA Department of Fish and Game
3.	Michelle Selmon	CA Department of Water Resources
4.	Nadine Peterson	California State Coastal Conservancy
5.	Patrick Rutten	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
6.	Dave Graber	National Park Service
7.	Mark Kramer	The Nature Conservancy
8.	Mike Tansey , Deputy Regional Director (SC Member) - <u>Ali Forsith</u> , Manager for the San Joaquin Restoration Program (Staff) - <u>Stacie Lee</u> , Division Chief for Environmental Affairs (Staff) - <u>Rick Woodly</u> , Division Chief for Natural Resources (Staff)	US Bureau of Reclamation
9.	Tom Hedt	US Department of Agriculture, Natural Resources Conservation Service
10.	Rick Kearney	US Fish and Wildlife Service
11.	Diana Craig	US Forest Service

	Resource Managers	Organization
1.	Sandra Morey	CA Department of Fish and Game, Deputy Director Ecosystem Conservation Division
2.	Ted Frink	CA Department of Water Resources, Branch Chief, Environmental Program Manager II, Ecosystems Restoration & Enhancement Branch, FloodSAFE Environmental Stewardship & Statewide Resources Office.
3.	Matt Gerhart	The California State Coastal Conservancy, Deputy Bay Program Manager, SF Bay Area Ridge Trail, and Integrated Regional Water Management Program
4.	Samuel Schuchat	The California State Coastal Conservancy, Executive Officer
5.	Maria Brown	National Oceanic and Atmospheric Administration, Gulf of the Farallones, National Marine Sanctuary
6.	Linda Mazzu	National Park Service, Yosemite National Park
7.	Natalie Gates	National Park Service, Point Reyes National Seashore
8.	Alan Forkey	US Department of Agriculture, Natural Resources Conservation Service, California State Program Manager

9.	Karl Stein	US Department of Interior, Bureau of Land Management, Barstow Regional Office
10.	Andy Yuen	US Fish and Wildlife Service, San Diego National Wildlife Refuge Complex
11.	Mendel Stewart	US Fish and Wildlife Service, San Francisco Bay Refuge Complex
12.	Gloria Silva	US Forest Service, Cleveland National Forest
13.	Scott Tanenberg	US Forest Service, Mountaintop Ranger District in the San Bernardino National Forest

ATTACHMENT B
Phase II – Interview Questionnaire

Questions for Land Management Agencies or Organizations

The general question is, “What can the California Landscape Conservation Cooperative (CA LCC) leadership do to help and support partners to maximize conservation benefit?” Within this context, the below questions will be asked:

1. What do you know about the CA LCC? What ways do you access information about the CA LCC? Do you visit the CA LCC website?

Defining Conservation Objectives

2. What are the ultimate conservation objectives of your organization or management area? *(For example, protect important habitat types, secure water for wildlife, ensure population levels are stable, sustain ecosystem functions, provide human benefits, other).*
3. How were your conservation objectives identified within your organization, and how much influence did on-the-ground managers have in setting those as opposed to coming down from higher-level administration? Who were the partners you worked with to help you define your conservation objectives?
4. Did you use information provided by researchers to define your measures of conservation objectives? If so, how? *(For example, researchers can help identify baseline conditions, potential future scenarios, and measureable objectives.)*
5. In regard to each of your conservation objectives, does your agency monitor, evaluate or track results? If so, is it incorporated into resource or land use decisions?
6. What are the most important things the CA LCC leadership can do to help you, if at all, with your process of refining your objectives *(For example, facilitated workshops, webinars, fieldtrips)?*

Implementing Actions/Decisions (What are the existing approaches, and how can the CA LCC leadership assist)?

7. What actions are you taking to achieve your conservation objectives? *(For example, stewardship incentives, land acquisition, regulating disturbance, restoration, species management, public outreach, other)*
8. Are you seeing changes in your landscape? Please describe the changes. Do you think any of these are attributable to climate change or some other large-scale ecological process? *(For how long, at what scale?)*
9. Have the changes affected your conservation objectives, and management actions? Are you tracking those changes, if so how?

10. What types of decisions are you making that would benefit from integrated science? *(Please provide your top priority(s) and why?)* What are the information gaps that, if filled, would help you with your management decisions?
11. What are the greatest near and long-term threats to meeting your conservation objectives, and do you intend/expect to adjust your management actions in consideration of those threats? If so, how can CA LCC leadership help you adapt in this manner?

Scientific Information Exchange

12. What information about landscape-scale environmental changes (e.g., atmospheric, urbanization, invasive species) would help you design your management strategies and actions? *(Provide a "Large scale" definition)(what's preventing you from getting that information?)*
13. What resources (e.g. scientific information /tools) do you use to inform your management decisions? Do these provide the appropriate level of detail for your purposes? If not, what level of detail, precision, and accuracy do you need?
14. How do you exchange information with scientists about landscape conservation strategies, tactics? *(What's preventing the ideal information exchange?)* If you could spend a day with a scientist what would you talk about? What would you want them to know?
15. How can the CA LCC help support your information exchange with scientists? What tools and information can we provide? What is your preferred way of receiving technical information? (i.e., Workshops, Webinars, Research projects, Fieldtrips, Training, Other)

What question have we not asked?