Background Paper: Thoughts on Co-Management and the Forest Service

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Participants of the Sierra Nevada Adaptive Management Program (SNAMP) have expressed a desire shared by many who have participated in public lands advisory groups, participatory management initiatives, and co-monitoring programs: they would like assurance that the advice, information, and data they provide will influence public lands management. This issue was raised at the beginning of the project in 2005 and again in April of 2008 by participants in SNAMP workshops: ideally, they would like to Forest Service to "co-manage" with the participants and researchers of SNAMP, using third-party scientific results, and participant knowledge and advice, as much as their own scientific data and knowledge. The upper left-hand part of the adaptive management circle (Figure 1), where results and participatory processes result in changes, as needed, to management, is the focus of this concern, and to date is not well explicated in SNAMP. Because there is often confusion about what kinds of commitments the Forest Service can make to sharing management decision-making, this short paper reviews some of what is known about the capacity of the Forest Service to "co-manage" with stakeholders. An introduction briefly describing the roots of the project is followed by a summation of the legislative context within which the Forest Service decision-making process takes place. Finally, some case studies provide examples of stakeholder collaborative efforts working with the Forest Service and other agencies.

Introduction

SNAMP was developed to research the direction of Sierra Nevada National Forest management as described in the Sierra Nevada Framework Record of Decision 2004. Through the creation of SNAMP, the state and federal agencies contracted with the University of California to help develop an adaptive management strategy for the Forest Service's predominant vegetation management strategy (Strategically Placed Landscape Treatments, SPLATs) using two demonstration sites in the Sierra. The University of California Science Team (Science Team) has chosen to define adaptive management as an approach to management that incorporates the uncertainty about the resource and treats management as a deliberate experiment to enhance scientific understanding about those uncertainties (Figure 1, UCST 2007, Walters 1986). To this the Science Team added a crucial component – public participation. The Science Team's workplan explicitly states "…that adaptive management must be a participatory process that engages scientists, stakeholders, and managers in a long-term relationship grounded in shared learning about the ecosystem and society" (UCST 2007). While the Forest Service is the forest manager and carries out the management, the Science Team's role is to conduct research about the effects of Forest Service management, basically, the lower parts of the adaptive management cycle (Figure 1).

The SNAMP project, then, involves three main groups of participants with separate responsibilities: the US Forest Service, the University of California Science Team, and public and agency participants. The Science Team researches the impacts of SPLAT management treatments on fire behavior, wildlife, forest health, and water, facilitates participation, and evaluates the participatory adaptive management process. The Forest Service carries out forest management in the SNAMP study areas. Though committed to a transparent and participatory process, the means and extent to which the public and the Science Team can participate in or influence US Forest Service management is not clear. Since the beginning of this process, engaged participants have suggested that clarification of the left-hand side of the adaptive management circle, where scientific results feed into management, is crucial to their participation. Without this clarification they question whether their time and effort are "worth it" since they felt they have no clear method of being heard nor do they have assurance that the Science Team's research will be included in management decisions. SNAMP's "Integration Team" (IT), made up of agency, Science Team and public participants, was created with the idea that this group would address the process of integrating scientific results into management action. Some SNAMP participants have suggested that the ideal way to accomplish this would be through some sort of stakeholder-Forest Service "co-management" process. This document is designed to provide background information of use to the IT team and others involved in SNAMP when discussing how participant and research information could become part of

Forest Service management.

The paper addresses this central question: What are the limits of the Forest Service's ability to conduct co-management with a non-federal entity? Can the Forest Service commit to sharing its decision-making with an entity outside the federal government? The answer to that question appears to be a definite "no" without direct intervention from Congress. Nonetheless, there are various initiatives that have attempted to develop approximations of co-management with federal land management agencies.

Co-management, shared-management, and joint management are all phrases used to mean more or less the same thing: the sharing of power and responsibility between government and local resource users, affected communities or nongovernmental organizations (Treves et al 2006). Figure 2 depicts increasing shared decision-making as the circles travel up and to the right – true co-management, where all parties' ownership is complete in high level decision-making, is located in the upper right corner. Through the public participation process, the IT team will discover what the potential level of shared decision-making is in SNAMP. Though for many, co-management is the goal, this goal will be constrained by what is legally and administratively possible. The Science Team has been straightforward about this since the inception of the project, acknowledging that they could commit to a scientific and participatory process where the results of research, and the processes of making research decisions, are shared as openly as possible— if participant input is not used by the Science Team in a particular research decision, the Science Team provides an explanation of why. However, the Science Team has never claimed to be able to assure the use of Science Team or stakeholder information in Forest Service management. As the forest manager in the SNAMP process, the Forest Service has expressed its desire to use Science Team and stakeholder information, but the specifics remain undefined. This paper is provided by the Science Team to help the IT group work on the difficult task of how SNAMP-generated knowledge will ultimately be incorporated into management action by the Forest Service, and what kinds of assurances about the ultimate use of SNAMP information can be made to help justify the many hours of commitment demanded of SNAMP participants. This is, based on our observations, where many "participatory" management scenarios for public lands fall apart: the information and advice of stakeholders is ultimately not used, or is adapted for use in ways that the participants find less than ideal.

Legal Context for Co-management

Shared decision-making is a process that is logistically and legally problematic for the Forest Service (Moote and McClaran 1997). Sharing decision-making authority outside a federal public agency leaves Congress with no clear line of accountability or oversight (McClaran pers. Comm. 2008). Though public participation in federal land management is mandated by laws such as NEPA, FLPMA, and NFMA, the laws have been interpreted to mean that the agency must *inform* the public (Moote and McClaran 1997). Legally, ultimate decision-making authority resides solely with the Forest Service and cannot be devolved or abdicated outside of Congress's reach (Coggins 1995/1996; Coggins 1999; Moote and McClaran 1997). "The concept of shared decision-making is in direct conflict with federal officers' responsibilities to Congress" (Moote and McClaran 1997).

The extent to which authority for the management of public lands can be delegated to non-federal agencies and private organizations ultimately refers back to the separation of powers. Congress has the supreme authority, but in reality their legislating usually leaves large gaps that are filled by the Executive Branch's federal agencies. These agencies' decisions are subject to judicial review under the Administrative Procedures Act (APA 1946), hence, Executive Branch agencies must follow Congressional intent as can be determined from the statutes and Congressional hearings. If agency decisions are judged to be arbitrary or capricious, they can be overturned by judicial review.

It is possible for agencies to sub-delegate some aspects of management to non-federal groups. This can be done in two ways – through a direct act of Congress or through agency discretion. When the delegation is done by agency discretion it is looked at much more carefully by the courts. In either situation, however, the agency must have final review and control over decisions. This agency review must be specific and demonstrable. The Forest Service, an agency of the Executive Branch, can receive factual information and advice from stakeholders, but true co-management is legally problematic because

the Forest Service must always retain the final decision-making authority. The Forest Service cannot promise to SNAMP participants that it will abide by, or implement, all the SNAMP final recommendations because then it would be delegating too much of its decision-making authority to the SNAMP IT group and Science Team.

The Federal Advisory Committee Act

In fact, Congress has taken specific steps to limit the role of advisory groups in federal agency decision-making through the Federal Advisory Committee Act (FACA, 1972). This was originally done to combat the backroom image and secrecy of many task forces by requiring federal advisory committees to be accessible to the public. FACA legally enables qualifying committees to give official advice to officers and agencies in the Executive branch. FACA committees must be made up of people representing a variety of perspectives and all work of these committees must be made public. However, the sponsor agency controls meeting agendas, meeting minutes are to be submitted to, and approved by, the sponsor agency, the agency can convene or dismisses meetings at its discretion, and the entire committee can have only a limited lifespan. There must also be an official agency representative at each committee meeting held. These types of cumbersome rules make forming FACA committees unappealing to many collaborative groups.

Examples of Other Processes that SNAMP Could Draw on:

Given the clarity of the situation, that the Forest Service cannot delegate decision-making authority to the Science Team or the IT group, we searched for other models of collaborative processes in the West that could be mined for techniques for SNAMP. Here we describe a few such processes and discuss their applicability to SNAMP.

Quincy Library Group

The Quincy Library Group (QLG) was formed in 1993 to bring civil discussion to a very heated and contentious local debate about logging in eight counties and three National Forests in California's northern Sierra Nevada. One of QLG's big questions was "How could our community enable and require the Forest Service to implement good plans when they become available?" (Terhune and Terhune 1998) a topic at issue in SNAMP. The QLG Act (HR 858, S 1028) gave the QLG committee no special powers or management role but attempted to force the Forest Service to manage based on the QLG proposal.

The QLG process, however, was and is very different than SNAMP. It was self-initiated by non-governmental organizations, it is entirely place based, and it is temporally and spatially narrow (Kocher pers. comm. 2008; London 1991; Terhune and Terhune 1998). In addition, the process entailed only a few broad public meetings. The QLG intentionally focused on a key set of community people, did not include other people and entities, with the aim of encouraging direct communication without bureaucratic hold ups (intentionally avoiding FACA requirements and perceptions of agency lethargy or distrust (Blum pers. comm. 2008; Chapel pers. comm. 2008; Kocher pers. comm. 2008; QLG website accessed 2008). QLG was seen by some as a process that tried to circumvent the normal public participation process required by NEPA (London 1991), whereas, the SNAMP process is the opposite. SNAMP is trying to insert the public into Forest Service management where it has not been before. In fact, the QLG did not have co-management as one of their goals (Blum pers. comm. 2008). One of the QLG actual goals highlights an important difference between the processes: to agree on specific methods not general principles (Terhune and Terhune 1998). In SNAMP both specific methods and general principles need to be clarified.

The QLG process required consensus within the group but specifically did not include facilitators at the start. Facilitators were equated with conflict mediation in the minds of many of the original participants who had just come out of long hard mediated battles elsewhere and there was no funding source to pay a meeting facilitator like exists in SNAMP (Blum pers. comm. 2008). Their idea of consensus is described by Terhune and Terhune (1998) as "Decision by true consensus. It is hard to over-state the importance of this factor in keeping QLG together and on point. Looking at a QLG meeting you would see something resembling Roberts Rules, because motions are made and seconded, then votes taken. But what actually

happens is not 'majority rule,' because votes are not taken until the group is pretty well convinced that the decision will be unanimous. If it isn't, then more discussion takes place, and if anybody is still opposed, the decision is either dropped or postponed for still more discussion. Votes are simply to record decisions already agreed by unanimous consent." (Terhune and Terhune 1998). For SNAMP, facilitation is key to the adaptive management process but the QLG consensus process could be a method through which the IT group, composed of participants from each of the three general groupings including the Forest Service and other agencies, could reach agreements.

Another place where SNAMP could learn from QLG is in the area of continuity in membership – their group depends heavily on participant longevity. Unfortunately the Forest Service intentionally moves its people around frequently and so there will likely be change in their representatives during the life of SNAMP. SNAMP will need to be aware of this problem within the Forest Service and try to encourage participant and Science Team continuity as much as is possible.

The use of sound science was and is crucial to the QLG process as well as to SNAMP. The resource management activities described in the QLG proposal and subsequent legislation were described in The Sierra Nevada Ecosystem Project reports as viable management actions that need to be tested (Chapel pers. comm. 2008). In addition, the QLG pilot program and its legislation mandated an independent scientific evaluation to be reported to Congress. The QLG also held annual results symposiums similar to SNAMP (Blum pers. comm. 2008).

Malpai Borderlands Group

In 1991, several ranchers began meeting at the Malpai Ranch in Arizona near the borders of Mexico and New Mexico. They were concerned about the encroachment of brush onto private and public rangelands and wanted to encourage more prescribed and natural burning of the grasslands. They were worried about the impact reduction in forage supply and "rangeland health" was having on ranch livelihoods, and ultimately, on the fate of rural communities. Land fragmentation and conversion were also a concern, as exurban sprawl moved into southern Arizona. Unlike SNAMP, the Malpai group was initiated by landowners. However, key to their success was their ability to influence the land management of federal and state agencies including the USFS (http://www.malpaiborderlandsgroup.org/).

Over two years, a small group of ranchers, environmentalists, and scientists, met and drafted a Malpai Agenda. Like both the QLG process and SNAMP, the Malpai Borderlands Group bases its discussions and management decisions on scientific research as well as local knowledge. The agenda expressed a commitment to "good science," as well as to biodiversity and a healthy ranch industry. The agenda stated that the effort would be led by the private sector with the agencies coming in as partners, rather than with the ranchers as agency clients.

As concern about fire suppression grew, the Malpai group grew. The group asked land management agencies to work with them on a Comprehensive Fire Plan for the area. The Forest Service, Bureau of Land Management, state land departments, and Natural Resource Conservation Service agreed to work with the Malpai Group to carry out coordinated ecosystem management in the area including improved use of fire. The Nature Conservancy eventually played a transformative role by purchasing and putting a conservation easement on a huge ranch in the area. The ranch was then sold to a rancher with a strong commitment to ecosystem management. The Nature Conservancy continues to work with the Malpai Group and the ranch serves as a grassbank in times of drought.

The Malpai Group has been able to obtain grants that have supported scientific research into the effects of fire on biodiversity in the area. This has helped gain the confidence of the agencies that ultimately determine fire policy for the area. Agencies appreciate having a coordinated group in the area to work with, and one that can be successful in obtaining grants and political attention to local needs. Agency efforts to change fire management have not only had some scientific support via the Malpai Group, but they have been backed at higher levels, partly due to the ability of the Malpai group to lobby at those levels. The various types of stakeholders are also united by their concern about the negative consequences of land fragmentation and exurban development. Several Malpai ranchers have demonstrated their commitment to permanently conserving ranchlands by putting conservation

easements on their ranches. Having a fire plan and a coordinated group is very useful to the agencies in determining whether or not to suppress a wildfire or let it burn, because they can anticipate the response of landowners in particular areas to a burn.

In short, the Malpai Group sought, in the case of fire suppression, to influence agency management and succeeded by building trust over time, supporting and using scientific research, making it easier for agencies to manage, showing visible commitment to environmental goals, working with NGOs and foundations, and lobbying in support of local efforts to change management. While they do not have a true "co-management" position, they have succeeded in changing local land management. The ground-up, grass-roots origins of both the QLG and Malpai make them very different than the SNAMP process, and their initial exclusion of the Forest Service is in direct contrast to SNAMP, but both groups were successful at influencing federal land management in very different ways (Malpai chose to become a 501 c3 nonprofit organization whereas the QLG invoked the Constitutional provision allowing citizens to redress grievances with the government (Chapel pers. comm. 2008)). Neither case's process nor structure is ideal for SNAMP to emulate but the use of consensus and focus on science are relevant to SNAMP. Stakeholders did not directly create SNAMP, though it can be argued that the program's origins lie in public concerns about Forest Service management, but their desire to be heard and their ability to help the Forest Service improve its management are no less crucial to the success of the project.

CALFED San Francisco Bay Delta and Delta Vision Processes

Begun in 1995, CALFED was a group of 25 California state and federal agencies working together to manage and restore the San Francisco Bay and Sacramento River Delta watershed (CALFED 2008a). By 2005 there was general unhappiness with the CALFED process and the State of California decided to refocus the mission of the group through a temporary entity called "Delta Vision" that reported to the state legislature and Congress with a new plan in 2008. CALFED then became the Delta Stewardship Council in February of 2010 as part of the Delta Protection Act of 2009.

Similar to SNAMP, CALFED and Delta Vision specifically emphasized the inclusion of a diverse array of stakeholders and a commitment to transparency but the two Delta processes had different methods for public input. The California-Bay Delta Authority was established in 2003 as CALFED's governance structure and is "charged with providing accountability, ensuring balanced implementation, tracking and assessing program progress, ensuring the use of sound science to guide decision-making, encouraging public involvement and outreach, and coordinating and integrating related government programs" (CALFED 2007b). The Authority was made up of state, federal, and public members. Unlike the QLG who specifically avoided this route, CALFED also created a FACA recognized 30-member advisory group called the Bay-Delta Public Advisory Committee in order to be able to officially advise federal agency secretaries. This committee was made up of representatives from environmental, water, civic and tribal groups, functioned as "a key link among CALFED agencies, stakeholders and the public", and was a crucial place for public input into management (CALFED 2007a). This committee was then broken into 9 subcommittees that were focused on relevant subject areas such as water quality, environmental justice, and levee stability. This is something SNAMP could create if it were willing to go through the federal bureaucracy to fulfill FACA requirements but while the university continues to convene and run SNAMP meetings with federal agencies as participants, complying with FACA is unnecessary. CALFED also had an Independent Science Board that was "designed to be a standing board of distinguished experts (scientists and engineers) made up of individuals with a range of multi-disciplinary expertise balanced among those with local experience and those with external relevant expertise" (CALFED 2008b). In some ways the role of the Science Team in SNAMP is both similar to the Authority in its third party neutral status but also the Independent Science Board in its research function. All of CALFED's advisory committees, at all levels of decision-making short of the ultimate level of the agency, included public members.

The Delta Vision process was structured somewhat differently (Delta Vision 2007). It has been suggested that the dissatisfaction with CALFED was ultimately caused by its focus on *process* to the detriment of *results* so Delta Vision was set up to include and validate public input but to also balance *process* and *results* more efficiently (Ullrey pers. comm. 2008). The decision-makers in the Delta Vision process were the state cabinet secretaries of the agencies involved (California Resources, Environmental

Protection, Business Transportation and Housing, Public Utilities, and Food and Agriculture) and they all sat on the Delta Vision Committee that met quarterly in a public format. Reporting to this committee was the Blue Ribbon Task Force that was made up of eight experts and scientists. The Task Force's meetings were also public and frequent. At the Task Force's meetings the Stakeholder Coordination Group presented outcomes from its meetings and shared ideas with the Task Force. This was the key point where public input was received. Stakeholder groups were asked to choose representatives to be on the Coordination Group who would be able to communicate the needs and desires of each to streamline the process. This group created 4 workgroups to focus on topic areas of importance to the stakeholders who then reported at the Task Force meetings. For both these processes, CALFED and Delta Vision, an internet presence was important – all reports, comments, meeting agendas and meeting notes are posted, stakeholders could submit comments via email, and Task Force meetings were webcast – tools that SNAMP employs as well. Acknowledging the need to balance process and results is important to SNAMP, and so the Delta Vision structure could inform SNAMP: the Forest Service is the ultimate decision-maker and therefore plays the role of the "Delta Vision Committee"; the Science Team could be considered the Task Force; and the IT group may be more like Delta Vision's Stakeholder Coordination Group in its role in the adaptive management cycle of incorporating and commenting on the Science Team research and making recommendations to the Forest Service.

Council on Environmental Quality: Collaboration in NEPA

Within the SNAMP process is the National Environmental Policy Act (NEPA, 1969) process that the Forest Service must conduct before it can implement treatments at the two study sites. Additionally, once the SNAMP research is complete, the Forest Service will hopefully continue with lessons learned through this process to improve public participation in future Sierra adaptive management NEPA projects. NEPA encourages federal agencies to collect public input on the environmental consequences of proposed public activities. However, decision-making still resides with the agency: "Collaboration *does not* turn the NEPA process into a process where an agency's responsibility to make sound decisions is replaced by how many votes are cast for a particular option or alternative" (CEQ 2007, emphasis added). But, "Collaboration *does* enable decision makers to consider any consensus that may have been reached among the interested and affected stakeholders, furthering the lead agency's ability to make informed and timely decisions" (CEQ 2007, emphasis added). The Council on Environmental Quality (2007) considers the primary goal of a collaborative NEPA process is "to arrive at an alternative that can be implemented" (CEQ 2007); something that is crucial to SNAMP given the litigious nature of the situation.

The Council on Environmental Quality (2007) explains the 5 phases of a NEPA process and suggests methods to employ public input to achieve success. In the "assessment and planning phase" the agency clarifies the management situation and determines the opportunity for collaboration – for example, the more complex the planned action, the more time planned for collaboration. Secondly, during the "convening and initiation phase", the lead agency brings interested parties together and clarifies roles, responsibilities and ground rules together. The Council's report suggests providing training to the collaborative group as SNAMP has done. It is during this phase that the group ought to address how they will make decisions together in the future – the lead agency should explain where it is limited by authorities, regulations, statutes or resource constraints (financial or natural). The Council proposes using a consensus approach rather than a majority rule approach, similar to QLG, and emphasizes that the rules of the consensus must be agreed upon, used and periodically reanchored. It is here that a third party neutral can add to the process and help determine ground rules. The third phase is the "sharing interests and exchanging information" – for example while the group is developing alternatives the report suggests agencies implement strategies such as: using a facilitator, conducting joint fact finding, creating topic study groups or subcommittees, and establishing public/private partnerships for sharing resources. This is followed by the fourth phase where "participants seek agreement through deliberation and negotiation". In the final phase the group depends upon it's agreed upon decision-making strategy to complete the "decision making and implementation" phase. Here it is crucial to for the agency to ensure that public comments are "heard" understood and addressed in the final document and the report suggests using an inter-agency working group to review comments as well as conducting in depth workshops.

Both of SNAMP's study sites' NEPA processes are completed so that the report's recommendations cannot be directly applied to the individual projects. However, the suggested process as a whole can be used as an example for the adaptive management framework and the future NEPA requirements that will be affected by SNAMP's findings.

Conclusions

To address stakeholder interest in shared decision-making with the Forest Service within SNAMP, we have communicated a few examples of other attempts to affect government management. The key to the progress of most of these groups, and likely to SNAMP as well, is in mechanisms that allow stakeholders to have an influence on management decisions within the context of the federal government's legal constraints. In these settings, science has almost taken on a mediation role, but in order to do so, it needs to be conducted in a way that seems credible to the participants and relevant to their concerns. Transparency is crucial. Important lessons learned from these cases are that it is imperative to provide opportunities for stakeholder input *before* agency decisions are made; that scientific information should come from sources credible to stakeholders, and research conducted in an open manner ideally with stakeholder input can be useful in resolving disputes; and that participation and management structures need to be flexible and may need to change as new ideas and research become available. Some SNAMP participants would like assurance that Forest Service management decisions will be made in accordance with SNAMP results and stakeholder input, however, that cannot be guaranteed for the reasons we have explained in this paper. It is left to SNAMP as a whole, and the IT group specifically, to create substitute mechanisms that can alleviate mistrust and allow the process to go forward in the face of uncertainty about Forest Service final decisions.

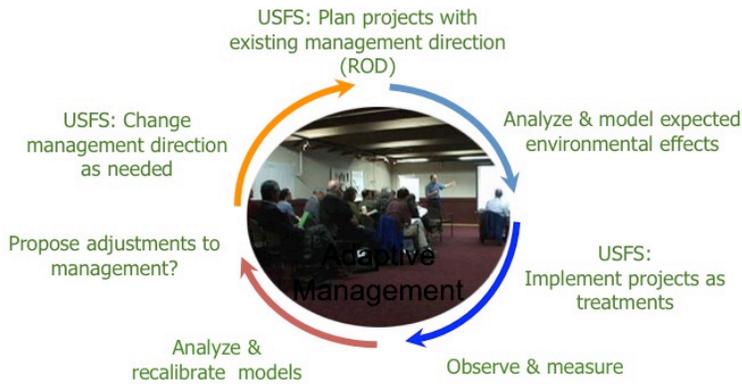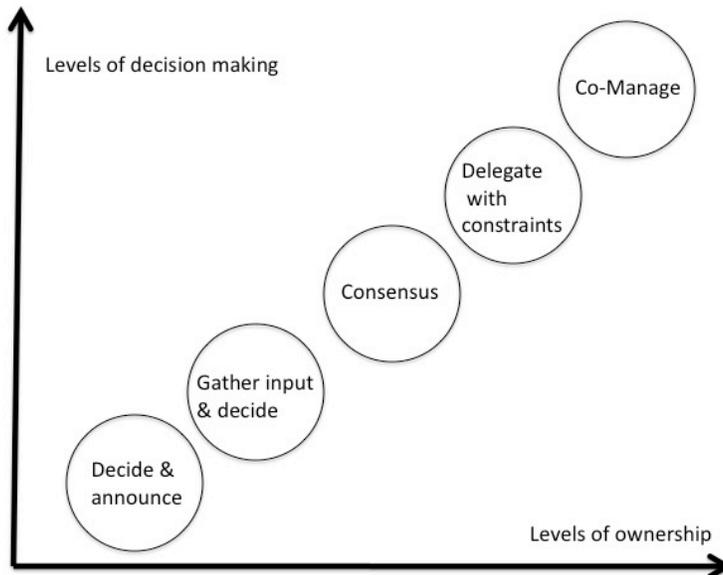**Figure 1: The UCST Adaptive Management Circle**

Adaptive Management Framework

USFS: Plan projects with existing management direction (ROD)

Analyze & model expected environmental effects

USFS: Change management direction as needed

Adaptive Management

USFS: Implement projects as treatments

Propose adjustments to management?

Analyze & recalibrate models

Observe & measure

Figure 2. Levels of Decision Making (originally from Interaction Associates and altered by Adriana Sulak)

Levels of decision making

Co-Manage

Delegate with constraints

Consensus

Gather input & decide

Decide & announce

Levels of ownership

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