

Sierra Cascades Dialog Small Group Discussion Notes

May 2012 Adaptive Management

The following pages summarize the flip chart notes taken during breakout discussions at the Dialog.

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

Themes:

1. It appears that there are similarities between different organizations definitions of A.M., but how it is applied varies. Even within the USFS, applications vary between district and regions especially in regards to triggers.
2. There is a clear and important link between A.M. and adaptive learning. Participation in the dialog meetings is not only A.M., but adaptive learning – hope everyone recognizes that.
3. Water issues go beyond the scope/scale of the forests. It will be very important to engage downstream water users/organizations in the discussions concerning water.
4. The distinct roles and contributions of the bioregions need to be distinguished from the distinct roles and contributions of local participants.
5. It is very helpful to understand the conditions/criteria for successful A.M. as pointed out in SNAMP presentation. It is good to point out that A.M. is not applicable in every project or that there are varying degrees of A.M. The public may not be fully informed on that or even local USFS managers.
6. Though the USFS often portrays the image of “knowing it all/knowing what to do” that is false. Local communities need to step in and help fill the information gaps. There also needs to be an acknowledgement that “we, meaning everyone regardless of affiliation,” may not actually have an answer but that that should not prevent forward movement.
7. A successful, upfront effort with community involvement now can lay the foundation for less involvement later on. Meaning that once trust is established and the foundation of A.M. has been clearly vetted/laid out, then the public may not feel the need to engage on every project. They will trust the history of success that has built up.
8. Be mindful of time and fiscal constraints when implementing C.A.M. – especially in monitoring.
9. The upcoming conservation strategy written by Sierra Forest Legacy that has clear steps, written agreements and a culture of learning, could be used as an example to the USFS.
10. The challenge is to take science such as GTR 220 and work it into effective land use policy.
11. Some discussions at these dialogs have been too abstract. We need more examples like SNAMP to help see the vision.
12. The public needs greater education on management processes such as time and legal constraints.
13. The scope of a plan needs to be very specific on what issues it covers and doesn't cover; how/why parties would consult it; and what makes it different from past plans.
14. Desired conditions should be seen as the objectives.

Questions to ponder:

- How can we involve the public in discussions over definitions of what the bioregional efforts should be, especially when talking about triggers?
- How will USFS educate employees on the new science? Is new science (ex. GTR220) being taught in universities to future USFS employees and participants? What are the process/mechanisms for using the new data in future management?
- Will there really be next steps or evidence that all of this dialog work and A.M. with public input has amounted to anything? How will the public know?
- What is a clear definition of ecological restoration?

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

Themes:

1. Local government must be engaged at the regional level and is distinct and separate from the general public.
2. Transparency of process at the project level will more easily reveal inconsistencies or tinkering at the regional level.
3. Need consistency at the regional level in dealing with local government.
4. Laws and regulations dictate USFS processes, limiting its flexibility.
5. Use the expertise of USFS FHP entomologists and pathologists for risk modeling, forest health monitoring and technology transfers.
6. USFS needs to follow their new rules with respect to working with local governments.
7. Renewing the timber industry will remove the criminal drug economy, increase safety, maintain the health of the environment, reduce unemployment, and strengthen the local economy and the local communities. Timber harvest workers skills are valuable, must not be lost and may be used in a new and different setting.

Public Engagement

1. Better communication between all the stakeholders at local and regional level.
2. Communication, including internet with real time updates
3. Public-Private partnership with non-profit organizations
4. More realistic about data collection; putting together a monitoring protocol in order for public to be involved

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

Themes:

1. *Must first establish priorities for the Adaptive Management Program*
 - This should involve group engagement of all appropriate stakeholders
 - Scientists must be at the table, too
 - The group should determine which policies and trends are important
 - Then, the group can frame issues to be addressed around these policies and trends
 - The group should frame key questions and have scientists help answer them
2. *It is important to learn from prior mistakes*
 - The public must be informed of decisions
 - Consider that potential litigation is a constraint on decision-making
 - Consider the possibility of conflict between scientists and managers
3. *Need a study plan on what Adaptive Management techniques would work for each case*
4. *Should establish a baseline database*
 - Need GIS-type of database, tracking data and information, with an annual review
 - Should have regional level central clearinghouse of data, lessons learned, tools used
 - Forests and districts learn from prior experience and data already gathered
 - Must get scientists involved with managers to establish database
 - Would funding constraints make this too difficult?
 - Must consider factors other than science in establishing the database
5. *Regarding data*
 - Look at what data is already available – avoid duplicating prior efforts
 - Make sure existing data is relevant to the issues under discussion
 - Avoid focusing on a single aspect - a single decision impacts many things; be multidimensional
 - Data should include items involving economic and sociological impact
 - Disclose both long term and short term considerations
6. *Design a program to track the process behind all decisions made and establish an index*
 - Important to justify rationale behind decisions
 - Must have central source of processes that have been tracked
 - Develop an index for each forest plus a central, regional index
 - Regional can be a clearinghouse for all information gathered at local level

Public Engagement

1. *Database needs to be available to the public*
 - Public needs to be involved in reviewing the database

2. *Public can be engaged using the internet*
 - Could have webinars with dialogues
 - Must be mindful of tech issues facing public engagement
 - Many places lack cell coverage
 - Some people have DSL, which is slow
 - Some do not have computer access or are do not use computers
3. *Should keep printed matter (newsletters, etc.) in addition to internet*
4. *Need to be doing more for schools*
 - Use web/internet
 - Schools can have a role in helping to engage the public
 - Students can do community projects on issues
5. *Can have one person representing more than one group at public sessions*
 - They can put forward more than one point of view
 - Need a regional representative
6. *Want public involvement and collaboration at an early stage -- at pre-scoping level*
 - Sharing of tools
 - Making sure smaller groups get heard at higher level
7. *Can develop and run video models for the public*
 - Develop template video model, like After-Action Fire Reviews
 - Can involve the public in running and testing different scenarios on the video templates

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

1. *There were many concerns about the loose definition of "adaptive management."*
 - Not comfortable with what it means or how it is applied. Does it apply to actions within a single project, or is it a larger concept about the Forest Service learning from past projects and using that knowledge in future projects. If it is the latter, isn't the Forest Service already supposed to be doing that?
2. *The group felt that adaptive management should be a deliberate process that is **scientifically driven***
 - A couple of people felt the current system doesn't allow for good use of science.
 - Forest Service is more interested in coming to collaborative solutions (finding a middle ground) instead of using methods that are scientifically superior.
 - For example, Forest Service could test different treatments simultaneously, then as they learn from the different processes make changes on the other treatments, or for future treatments.
3. *How can planning/projects be more scientifically driven, and be given the freedom to adapt to better science as projects are being implemented, or even just developed?*

Currently, after the Forest Service starts heading down one path, it is often hard for the agency to update their analysis and change their plan.

4. *SOPA would be a good location for the Forest Service to decide and declare whether a project is appropriate for adaptive management (and collaboration).*

Forest Service should be clear about its goals for the project, and with what they hope to accomplish with collaboration.

Could be based on PPIQ – pesky participant identification quotient

5. *Adequate monitoring is important.*

We need to do this so that we can learn from past projects (and this is a good place for public assistance)

Public Engagement

1. *(Much of our conversation discussed the interaction between adaptive management and collaboration)*

- a. There were concerns about who was available to collaborate when the Forest Service tried to work collaboratively on projects. The only people who have the time and money to collaborate are people from groups with specific narrow interests.

- b. These groups often won't be happy with a collaborative solution, so everyone loses.

- c. Forest Service ends up with an option that was created by "paid participants."

- d. The average local public citizen is not available to collaborate, even though they may have a unique set of concerns/interests.

- e. BUT, Collaboration is important (and is required by the new planning rule and other laws and regulations)

- f. Could be easier for average citizen to participate if there were additional ways to get involved (i.e. internet, social media).

- g. Also, the more "localized" the project is the more interest local citizens will have.

2. *Public involvement is good at 2 times (1) Monitoring and Data Collection, and (2) Processing and discussing the results of the Forest Services' analysis of the data.*

3. *Forest Service should be upfront and clear about budget constraints, staff constraints, and goals.*

4. *Forest Service needs to keep moving after gathering public input. Take it for what it is worth, and then keep moving to get projects planned and implemented.*

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

Themes:

1. Transparent process with clearly defined goals and objectives - both developed with public input at local level.

It's important to make sure that stakeholders are contacted (by the integration team).
Multi-disciplinary teams

2. Empower local communities (at the forest level) to help develop adaptive management process

3. For purposes of assessing and monitoring, start with a clear baseline developed through empirical information - not expert opinion and emotion. Then develop who, what, when, where and why of forest plan.

4. Strengthen monitoring by developing a central resource database for ease of access to data

Public Engagement

1. Very important to bring members of the public out to where the work is being done (by scientists) so they can appreciate what is being done - dirt-kicking field trips. This would include field workshops and education. The public should have input into the questions being asked and objectives. This is the key to adaptive management.

2. Public engagement should be accomplished through a coordination committee of those with an "interest" in the decision.

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

Tools

1. Clear direction from Regional offices to the Forests and down to the districts is needed.
2. Guidelines (clarity) for how to interface w/ NEPA
3. Regulatory or statute backing may be needed to ensure the Forest Service has to engage in/implement monitoring. Without backing it may not be mandatory to implement.
4. Monitoring & AM should focus on collecting information for discreet areas that s uses in criteria-based decision making. Information & criteria should include: social, economic, and ecological impacts, effects and perspectives.

Processes – involving public

1. Crucial community/public involvement is involved INITIALLY and not responsively.
2. Must be attention to social considerations/perceptions

3. Increasing consistency of records of public comments and increasing completeness of specific comments may help build a sense that public is being heard. Formal justifications and responses (consistently) to these comments would be appreciated.
4. Using local people as much as possible to assist in monitoring has the following benefits: controls costs, promotes learning on both sides, leverages lay expertise

Processes – involving agencies

1. Efforts should be made to explicitly involve STATE AGENCIES in AM Planning processes
2. Interforest/cross-scale/transboundary working groups should be formed to work on regional solutions (this may require regulation changes).

ELEMENTS

1. Staff with sufficient skill sets for implementation and management is vital.
2. Incorporation of data sets from outside the FS
3. Public education/effective means of engaging public is necessary
4. Evidence of FS **hearing** and **acting** on public input (retroactive or proactive) [this will require a huge effort and a major culture change]. Such evidence could include:
 - Willingness to adjust purpose and need in response to public perspective
 - Summary statements and/or commitments after public meetings (might require regulatory changes)

Public Engagement

Forests broadly

1. The Forest Service needs to RETHINK deeply about how to reach and meaningfully engage the public in the forests more broadly (let alone the AM process)
2. Improve PR for forest service

Active Management specifically

1. Get the public to the forests and involved using such things as: field trips/service trips that are hands on (such as clearing trails, involving them with monitoring) - if you get them on the ground it will increase commitment and/or concerns for supporting AM
2. Go to where the public is to engage them (i.e. presentations at local Board of Supervisor meetings)
3. Leverage existing organizations to recruit volunteers

Tools, Elements & Processes to Build a Robust Adaptive Management Program

1. *Everyone needs to decide what to monitor*

- Collaborate on this
- Species of concern, but what else? National Forest planning is for ALL resource areas, not just species of concern – what about recreation?
- Restoration-focused vs. multi-use mandate
- Realize that there's monitoring vs. assessment, they're different things
- Monitoring at regional scale – how to know what's at local population level?
- Includes research from other locations
- Don't need to reinvent the wheel

2. *Important to look at social and economic needs as well*

- Land management in context of social and economic communities
- How to answer the question “what jobs were created?”
- Hire local vs. outside (consider cost, training needs)
- Adapt to how much effort to put into social
- How to determine what jobs are result of a management decision?

3. *Focus on Ecosystem Services*

- Clean water
- Wildlife habitat
- C storage
- Recreation
- Trees for commodities
- Resilience to wildfire

Goal for National Forest(s) to produce that service

Quantify into \$\$ value?

- Acre-feet, tons of C, availability to rec
- Need something you can measure

Regional benchmarks: if you don't make them, how do you know what to change?

Integrated team will figure out how to meet regional goal; Need at forest level as well though

Communicate

- What works on one NF, could work elsewhere

Initial implementation \$\$ huge

FS doesn't have resources, \$\$ or expertise

NEEDS PARTNERSHIPS

Public Engagement

1. Citizen science data gathering has value:

- Have a protocol, pictures and geotags
- ex. iNaturalist
- researchers to help determine/teach sig. data
- lots of non-statistically significant data
- internet apps
- ex. Hikers give inconsistent reports/wrong locations

Citizen monitoring – USFS is roadblock

- USFS doesn't trust them or don't want to invest time to train or make use of citizen scientists
- FS needs to go out and talk to them – agency reluctance, trust issues with specialists
- Misperception that citizen scientists are unskilled and inexperienced
- FS provided a training to Sierra Club on how to do a lake survey – garden clubs, retirees

2. Programs to involve public in management actions

- Ex. PCTA helps do physical management on the ground
- Volunteers can help with fuels to clear brush
- Overlapping resource benefits
- Fuels management helps trail AND habitat
- Sierra Nevada 6-10 fuels management collaborative
- Model for other communities
- CFLRP's
- NGOs grants from elsewhere – private, etc.
- Ex. Coca-Cola meadow restoration on Eldorado NF
- Small rural communities key players

corporations and corp

How to engage people far away – ex. In a city don't know where their water from

3. NGOs can advocate for funding for adaptive management

- Right now stakeholders fight over using FS \$ - INSTEAD, stakeholders should go to Congress for more \$ for USFS

Concern over adaptive management and flexibility – how to trust in this process?

- FS needs to stick with the process (through good times and difficult)

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

1. The Budget needs to be more transparent. To include things like: What does this wildlife question cost to answer?
2. ID (interdisciplinary) meeting with in the FS may benefit from a piece being open to the public. There is a small handful of people who could provide valuable input to discussions of upcoming plans. Develop questions and prioritizes together.
3. Share the science. PSW (FS researchers) could benefit from a symposium to share what they are learning with the public, as they already share it internally. Allow the public to be involved in setting priorities, identify gaps. Provide an Ecology glossary to assist in background. Send scientific reports on tour.
4. Make up of citizen monitoring groups. Leverage groups already on the land, local watershed groups, RCD (Resource Conservation Districts), backcountry horsemen (could offer early detection of invasive weed/ monitoring). If Citizen monitoring is used it will need a careful protocol set up and constant follow up, which may require someone to run monitoring focus. Making use of existing I-phone apps may assist in involving the public. There needs to be a monitoring steering committee, the details are important. The public needs: an understanding of what/how is being monitored, access to information gained AND interaction with monitors, scientists and agency people.
5. The 2 year monitoring report would be very important; that it answered the right questions and provided outcomes. Honest, AM requires mistakes and change, we cannot fear mistakes.
6. Stewardship vacations – people come and help with projects during their time off. (Earth watch does it)
7. There is concern about lack of controls on SPI land. Clear-cut and aerial herbicide spraying! How can FS share its goals with private neighbors, influence them?
8. Need to value what tourists come for. Scenery very valuable to maintain, no clear cuts.
9. And the million dollar question, everyone has been wondering. How will change reach the Regional level? This process needs to spelled out clearly, step by step, level by level.

Public Engagement

1. Broaden stakeholder interest groups when listing them—hard to list interest groups because someone is usually left out.
2. Add water agencies

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Key items from the discussion:

- 1) Engage the public through creative outreach with clear expectations of outcomes.
- 2) Focus research efforts to address management needs.
- 3) Develop an information management system to share regional data.

Tools, Elements & Processes to Build a Robust Adaptive Management Program

1. There was a request for a **common set of rules for all of Region 5**. However, the group recognized that those rules may change with the types of issues that the agency monitors, as proposed management actions for such issues have different application scales.
2. There was a question of whether the design process should come first to engage public to help develop a program, or whether there should be a plan first for the public to comment on.
3. One comment was that there is a **need for a strong information management system to disseminate and access information** about forest conditions. There was another request to have more baseline data at the regional level, information about assessments in other jurisdictions, as well as assessments that across jurisdictional boundaries. Another suggestion was to use partners like local entities and non-governmental organizations to collect data. However, the group pointed out that **collection methods need to be standardized so the information can be easily sharable via a database**. There was a comment that **Data about the region is not shared between agencies, federal, state, and local**. There was also a request to integrate management processes.
4. There was discussion of monitoring protocols and the use of citizen scientists to collect data. There was a concern that the use citizen scientist to collect may not legally defensible to support management decisions. However, there was an **interest and willingness to have citizen scientists collect data if properly trained**. There was also discussion that citizen scientists could install monitoring stations or collect basic data for agency staff to synthesize into results to base management decisions. There is no standardization of data collection processes, and no assessment of how different organizations collect their science data. There was a comment that **the public does not understand the legal requirements of data collection** to support management decisions.
5. Another need the group identified includes greater connections between practical research and management needs. However, one participant pointed out that research must continue to be peer-reviewed using accepted scientific standards. One suggestion was to **change the research funding process so that researchers have to meet managers' needs** to receive funding for research projects. There was a suggestion to **use fieldtrips to connect researchers and managers**.

6. The group made the **distinction between long-term monitoring and research studies**. Graduate students have two-three years commitments to a research project. There is a need to **determine what research is feasible to conduct in the next two years**.

Public Engagement

1. One participant shared that there is a need to find the **common issue that brings people together, and to have all interested people at the table at the same time**.
2. There is a perception that the **Public Meeting process is no longer helpful to gather public support, since citizens do not seem to care about the noncontroversial issues, and do not participate in the opportunities to provide public input**. One suggestion was that the **agency needs to engage in a more meaningful way to show that it has received and acknowledged the public's input to demonstrate to the public that engagement is worth their time**. Another suggestion was that the agency use creative outreach, and to **clearly communicate expected outcomes**. Also, **the agency should ask the public's input on a specific item/topic**, not just the full spectrum of issues of a project.
3. The group pointed out that due to economic factors, it is challenging to gather people and engage them on the issues. There was a suggestion to **use social media tools to share information**, especially in the rural areas. However, **a big challenge for government staff is that they are not allowed to access social media sites on government computers**.
4. **The main concern is how to keep the public involved in the long-term process**. The public engages in issues that are controversial because they feel like they have something to lose, and thus need to participate to protect their interests. Another concern is that the **communities' memory is short and that people have already forgotten the devastating fires in the early 2000's**. Additionally, **many of the properties in the area are second-homes with owners not in the area**. It was noted that this may be an **opportunity for local associations to do marketing or outreach and education on key issues like fire and the benefits of participation in a public engagement process**. One comment was that **the agency or organization needs to go to the public, instead of hosting meetings at agency offices**. Thus, the agency or organization can host meetings where the public gathers at such places like coffee houses, libraries, or town halls.

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Tools, Elements & Processes to Build a Robust Adaptive Management Program

1. Need for involvement with all parties.
2. Need tools and skills associated with collaboration.
3. Need deliberate process to determine what adaptive management is.
4. Need for clarity on what process is.
5. Need for steering committee to help develop what framework is.

6. Need for regional guide to clearly spell out process and tools that are available.
7. Need to review relevant species recovery plans to determine how adaptive management was used and how it might be applicable in this effort.
8. Need for political engagement in order to bring “funders” along if overall process is to be successful.
9. Need for organizational goals and paradigm shift.
10. Structure to promote collaboration are essential.
11. Biomass is interesting option. Funding comes from industry. Looking for more economic opportunities from items that historically have not generated income. How can forest management be funded differently?
12. Recreation interests have concerns about how adaptive management is undertaken. Specifically, what type of studies on recreation oriented issues will be undertaken? What is the science of recreation and how can the quality of the experience be integrated into the forestry planning process?
13. Key component of adaptive management process is having all stakeholders involved. Need for learning process and political engagement in order to “drive” entire process. Litigation is hugely problematic.

Public Engagement

1. Need for commitment to process.
2. Expectation is that all parties will work together collaboratively. However, in the end, any party can walk is a challenge.
3. Need to do all that can be done to bring diverse set of stakeholders along.
4. Public trust resources are very difficult to convey. Unfairly put the burden on the agencies. Culture within each community is different. How will expectations be met and/or changed?
5. Need for shared language. Clear agreement as to the expectations as to what is to be achieved. Need to increase capacity within both FS and public entities that are involved.
6. Need to have clear benchmarks so folks understand what is being worked towards.
7. Need to get to build trust amongst parties so that process may respond appropriately. This takes time and energy. Need to create defensible and supported efforts.
8. Interest based collaboration requires “easing up” on advocacy side of brain.
9. Need for continual education of all parties to help isolate outliers. All parties have to be at the table.
10. Relationship building is very important. People to people interaction is key. What if process is very successful and there is a need for many more meetings. How can we support involvement at this intensive level?
11. Need for new model. Capacity building at all levels is needed.

Key Insights from Discussion

- Embracing adaptive management will require adaptive management!
- Need to develop capacity both within FS and involved parties.
- Commitment from leadership at all levels of FS is needed.
- How will cost of adaptive management process be covered?
- Need for strong facilitation involvement.

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- Be sure you have developed clear goals and objectives for adaptive management.
 - Describe the resources you have available and the questions you wish to address
 - State the purpose for the program
 - Be clear about the study plan – techniques, costs, leads
 - Define the scales at which studies will be completed and results can be applied
 - Be clear about how new information will be disclosed and discussed
 - Describe the when and how changes to management will be considered
 - Are preset “triggers” desired or useful?
 - Should this be ad hoc and a group decision?
- Find ways of involving people who do not live in the immediate area of where management is being studies
- Prioritize investments to be sure the most critical questions are addressed first
- Consider small-scale experiments to evaluate controversial topics