

DIALOG REPORT #6

ADAPTIVE MANAGEMENT IN FOREST PLAN PLANNING: TOOLS & TECHNIQUES

DIALOG HELD MAY 10, 2012

GARDEN PAVILION, MCCLELLAN, CALIFORNIA, AND INYO NATIONAL FOREST, BISHOP, CALIFORNIA

OVERVIEW

On May 10, 2012, the Forest Service held its sixth Sierra Cascades Dialog, *Adaptive Management in Forest Planning: Tools and Techniques*. This Dialog's goals were to explore adaptive management in the new Planning Rule and lessons learned from the Sierra Nevada Adaptive Management Project and to identify issues and tools and public engagement opportunities for adaptive management during forest plan revision in the Sierra Cascades.

Approximately 120 stakeholders participated in the five-hour Dialog. Participants included Forest Service staff and stakeholders representative of diverse interest groups, including conservation/environmental, fire safe councils, contractors, county governments, forest products industry, land managers, local elected officials, private landowners, recreation, rural communities, scientists, state government, and water agencies. Tribal members and youth were missing from the audience.

The intent of the Dialog is for stakeholders to engage in conversation on land management issues of regional importance for the Sierra Nevada and the Cascades. The goal of the Dialog is to create shared understanding among participants with diverse opinions. Dialog outcomes inform future Forest Service decisions. The first Dialog helped the Region to refine the Leadership Intent for Ecological Restoration. The second Dialog on *Values, Attitudes and Beliefs* has informed the Region's biological assessment for forest planning and led to the science synthesis. The third Dialog on *Improving Rural Economies* built on work underway in partnership with County elected officials, the Sierra Nevada Conservancy, the Biodiversity Council, and other initiatives around the state. The fourth Dialog on *Science Synthesis* identified questions that stakeholders would like the science synthesis to answer. The fifth Dialog vetted a Collaborative Model for each early adopter forests to use during Forest Plan revision. The current Collaborative Model includes Dialog participants' suggestions.

This document summarizes the content of the discussion to the extent possible since participants primarily worked in small groups. Notes from each table-top discussion are included in their entirety in a separate attachment.

ADAPTIVE MANAGEMENT IN THE NEW PLANNING RULE

Ron Pugh, Deputy Regional Director for Ecosystem Planning, recapped the major steps in the Regional Office strategy for Forest Plan revision before going into detail on some ideas about adaptive management. The Inyo, Sierra, and Sequoia National Forests will be the first forests in this region to revise plans using the proposed 2012 planning rule. Forest plan revision has several significant inter-related elements: the bioregional and forest assessments, the science synthesis, and plan revisions. The bioregional and forest assessments and science synthesis will develop in parallel during 2012. The assessment will create the scientific and site-specific understanding for individual forest plan revision beginning in 2013. All components are founded within a collaborative framework engaging stakeholders regionally and locally.

ADAPTIVE MANAGEMENT FOR FOREST PLANNING INVOLVES BUILDING A STRATEGIC FRAMEWORK FOR FOREST PLANS THAT RECOGNIZES THAT MANAGEMENT ACTIONS MAY NEED TO SHIFT IN RESPONSE TO CONDITIONS CHANGING OVER TIME.

Region 5 is doing a bioregional assessment to address issues of regional significance, consistent with stakeholder input, even though it is not required by the planning rule. Forests are looking at the landscape scale, ecological regions, and sub-regions of California beginning with the assessment. All forests will look at variable scale tied to ecology. Any species that traverse a forest boundary will trigger a regional focus.

The bioregional assessment will inform management and monitoring issues. Criteria in the bioregional and forest assessments will be used for the analysis in the assessment and for the monitoring program. Analyzing these criteria would inform both project-level work and forest planning into the future. Mr. Pugh observed that most monitoring is currently geared to projects.

The intent is to improve planning through monitoring. Forest plans will set up monitoring. Information gained through monitoring will feed back into the plan, inform about changed conditions, and identify any necessary plan changes. For example, if a six-degree change in temperature is expected due to climate change in five years, but occurs in one, the criteria would need to be changed. Specific projects will be examined in the context of the plan. Future plans would be based on the monitoring over time.

Adaptive management does have constraints: time, people and funding. Resources will need to be built into the plans for adaptive management to occur. An important component of adaptive management is to manage change that will occur: weather, actual disturbances, human uses, demographics / population, new information, research and politics.

Active public participation is critical to the adaptive management framework. The Region and forests intend to create meaningful opportunities for public participation. The Region will continue to use the Dialog and other venues for inviting participation.

Each forest will need to define its participation through the Collaboration & Communication Plan during plan revision and through the plan during implementation. Questions and discussion are noted on the following graphic recording.

ADAPTIVE MANAGEMENT IN FOREST PLANNING

QUESTIONS:

Craig Thomas: (Sierra Force Legacy)

WITH DATA & RESEARCH
WHAT DO WE DO WITH THIS
FOR A SUCCESSFUL OUTCOME?

Connect the imaginary
loops



SHARING WITH
SCIENTISTS
Monitoring
report
in a collaborative
REPORT...

Structure
of how we
do it?
Have a
conversation

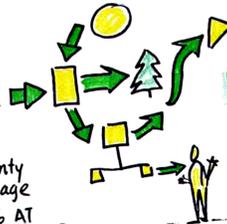
HOW ARE YOU GOING
TO TRIM DOWN ALL
THE INFORMATION FOR
THE FOREST PLAN
TRANSPARENCY & SCALE

Conversations | being at the
table
help inform...



Q: ORGANIZATIONAL
STRUCTURE...
CULTURE?

Admitting uncertainty
and how we manage
ARE YOU LOOKING AT
THE STAKEHOLDER BASE?
This is key



"we will
operate
differently..."
"no more
pre-decision
secrecy..."

people
involvement
at every step
We're in a slow-turning boat

Q: MONITORING/
WHERE WILL
THE CONNECTIONS
BE MADE?

social
acceptance
(is limited
on what we
do out in the forest...)

Look at: ECO SYSTEMS SERVICES
BALANCING...



Context
Public
Understanding

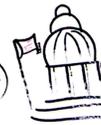
Q: WHAT IS THE
REGION DOING
FROM REGIONAL
SCALE DOWN TO
THE FOREST? (MONITORING)
FRAMEWORK & STRUCTURE

We intend to do a
bio-regional assessment-
BROADER LEVEL ISSUES...
We'll address these...

Q: WHAT IS THE COST
ASSOCIATED WITH MONITORING

How will you determine
the correct monitoring
priorities | subsequent
action? COST?

Congress Controls Cost
Look at where we are
spending on current monitoring



WHO DOES THE MONITORING?
in the Future: NGOs?
COUNTY GOVERNMENTS?



Q: THE LARGER
BIGGER PICTURE?

WHAT ARE WE
TO BE LEARNING HERE?
Public Education
Or does this ADOPTIVE
MANAGEMENT
Feed into FOREST SERVICE
Internally



LARGER
SCALE information

GROUP
LEARNING



SIERRA NEVADA ADAPTIVE MANAGEMENT PROGRAM

Dr. John Battles, PhD, Principal Investigator, and Dr. Kim Rodrigues, PhD, University of California, provided an overview of the SNAMP program, focusing on its successes and lessons learned. Dr. Battles and Dr. Rodrigues also focused on tools and techniques that would benefit forest planning and how SNAMP has managed cost constraints.

The SNAMP program is extensive with six research teams. SNAMP has a learning cycle that involves assessment and learning, feedback and adjustment, implementation, and re-assessment. Focusing on a clear question is important for adaptive management. Adaptive management also requires a plan for spatial scale, time, approach to engaging agencies and managers, and public vetting. Effectiveness is contingent on knowing information gaps, the prospects for learning at the appropriate scale (or size), and having opportunities for adjustment. Committed partners working together collaboratively have been instrumental to SNAMP, including the state natural resources agencies, and universities with a robust collaborative framework.

Dr. Rodrigues concentrated on the collaborative framework and public engagement component. Adaptive management takes labor, will and commitment, building capacity, and financial and human resources. Collaborative adaptive management can only be done when conditions are present to support success.

Dr. Rodrigues outlined the following keys to success:

- Building relationships and looking for opportunities of early agreement
- Being clear about the outcomes and process is
- Committing to public engagement and strategic outreach in a clear and thoughtful way
- Being honest and up front with people about decision-making and the structure of the process. Defining consensus and the fall back structure are important. Facilitation is critical
- Having an inter-disciplinary approach. SNAMP used an integration team approach with the regional, forest, and local level represented.
- Commitment
- Long-term memory
- Identifying key people at multiples levels
- Distance support
- Clarifying the science for the public
- Articulating legal constraints

QUESTIONS & DISCUSSION

The budget for SNAMP was about \$1.7 million per year.

“Closed loops” references clearly tracking the impact, i.e. answering the “so what” question or closing the loop. Explaining the difference that some action made.

The Forest Service should consider a similar model for funding. The forest could link forest restoration with public utilities and water agencies.

The elements that are necessary for adaptive management, articulated by the presenters, included clear goals, data gaps, research, and thinking strategically up front. Time, energy, and effort are critical and helps to set expectations.

ADAPTIVE MANAGEMENT FOR THE SIERRA NEVADA

The Dialog held small group discussions concentrating on two questions:

- 1) What are the tools, elements, and processes that would build a robust adaptive management program for the Sierra Cascades on the regional scale?
- 2) How would the public like to engage in adaptive management?

The following summary is based on large group insights toward the end of the day as well (highlighted in the following graphic) and the summary of each tabletop discussion provided to the facilitator.

TOOLS, ELEMENTS & PROCESSES TO BUILD ROBUST ADAPTIVE MANAGEMENT PROGRAM IN THE SIERRA CASCADES

Clearly define “adaptive management.”

Adaptive management should be a **deliberate process that is scientifically driven**. Some felt the current system doesn’t allow for good use of science. Collaborative solutions (finding a middle ground) must be bound by science. Concern that middle ground sometimes trumps using scientifically superior methods. For example, Forest Service could test different treatments simultaneously, and then as they learn from the different processes make changes on other or future treatments.

Establishing priorities for the Adaptive Management Program should come first. This should involve group engagement of all appropriate stakeholders, including local communities. 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. Prioritize investments to be sure the **most critical questions are addressed** first.

Look at what **data** is already available – avoid duplicating prior efforts. 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. Land management in context of social and economic communities. *Think about how* to answer the question “what jobs were created?” Hire local vs. outside (consider cost, training needs).

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

Local communities need to step in and help fill **the information gaps**.

Design a program to **track the process behind all decisions made** and establishes an index. Justifying rationale behind decisions is important. 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

There is a clear and important link between adaptive management and **adaptive learning**. Participation in the dialog meetings is not only adaptive management, but adaptive learning.

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.

Desired conditions should be seen as the objectives.

Monitoring and adaptive management should focus on collecting information for discreet areas that are used in criteria-based decision making. Information & criteria should include: social, economic, and ecological impacts, effects and perspectives.

Focus on ecosystem services: clean water, wildlife habitat, recreation, trees for commodities, *and* resilience to wildfire.

There is a need for a strong **information management system to disseminate and access information** about forest conditions. Make available baseline data at the regional level, information about assessments in other jurisdictions, and assessments across jurisdictional boundaries. **Data about the region is not shared between agencies, federal, state, and local.**

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 and identifying gaps. Provide an ecology glossary to assist in background. Send scientific reports on tour.

Consider establishing **citizen-monitoring groups**. Leverage groups already on the land, local watershed groups, 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. **Collection methods need to be standardized so the information can be easily sharable via a database.** Making use of existing smart-phone applications may assist in involving the public.

Using citizen scientist to collect data may not legally defensible to support management decisions. However, there was an **interest and willingness to have citizen scientists collect data if properly trained**. Citizen scientists could install monitoring stations or collect basic data for agency staff to synthesize into results to base management decisions.

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.

There is a need for **political engagement** in order to bring “funders” along if overall process is to be successful.

Describe the when and how changes to management will be considered. Are preset “triggers” desired or useful? Should this be an ad hoc group decision?

Consider **small-scale experiments** to evaluate controversial topics.

PUBLIC ENGAGEMENT

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 adaptive management 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.

The distinct roles and contributions of the bioregions need to be distinguished from the distinct roles and contributions of local participants.

Improve communication between all the stakeholders at local and regional level.

Communicate, including internet with real time updates.

Establish public-private partnership with non-profit organizations.

Be more realistic about data collection and put together a monitoring protocol in order for public to be involved.

Make database available to the public.

Want public involvement and collaboration at an early stage, at pre-scoping level.

Make sure smaller groups get heard at higher level.

Develop template video model, like After-Action Fire Reviews. Can involve the public in running and testing different scenarios on the video templates.

Increase consistency of records of public comments and 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.

Using local people as much as possible to assist in monitoring has the following benefits: controls costs, promotes learning on both sides, and leverages lay expertise.

Form inter-forest/cross-scale/trans boundary working groups to work on regional solutions (this may require regulation changes).

Identify staff with sufficient skill sets for implementation and management is vital.

Demonstrate that the Forest Service has heard and is acting on public input (retroactive or proactive). This would require a significant effort and a major culture change. Such evidence could include: willingness to adjust purpose and need in response to public perspective and summary statements and/or commitments after public meetings (might require regulatory changes).

Engage the public through creative outreach with clear expectations of outcomes.

There were concerns about who was available to collaborate when the Forest Service tried to work collaboratively on projects. It's difficult for the general public to have the time and resources to participate.

Public involvement is good during: (1) monitoring and data collection and (2) processing and discussing the results of the Forest Services' analysis of the data.

Clarify Forest Service budget constraints, staff constraints, and goals.

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) – getting people on the ground will increase commitment and/or concerns for supporting adaptive management.

Go to where the public is to engage them (i.e. presentations at local Boards of Supervisors meetings).

Leverage existing organizations to recruit volunteers.

Due to economic factors, gathering people and engaging them on the issues is challenging. Use social media tools to share information, especially in the rural areas. A big challenge for government staff is that they are not allowed to access social media sites on government computers.

Need to do all that can be done to bring diverse set of stakeholders along.

Need to get to build trust amongst parties so that process may respond appropriately.

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?

Need to develop capacity both within Forest Service and involved parties.

Commitment from leadership at all levels of Forest Service is needed.

Need for strong facilitation.

Embracing adaptive management will require adaptive management!

QUESTION TO PONDER

How can we involve the public in discussions over definitions of what the bioregional efforts should be, especially when talking about triggers?

RELATED DOCUMENTS

Dialog 6 Adaptive Management **Small Group Notes**

Wall Charts & Wall Charts Transcribed

