SNAMP Fire & Forest Ecosystem Health Team Integration Team Meeting Notes
February 17, 2010; Davis, CA

In attendance:
Carie Battistone, CA Dept of Fish and Game
John Battles, UCB/SNAMP
Sue Britting, Sierra Forest Legacy
Steve Brink, California Forestry Association
Brandon Collins, USFS PSW
Doug Cushman, Lahontan RWQCB
Ron Eng, CA Dept. of Agriculture
Pat Ferrell, USFS El Dorado NF
Chris Fischer, USFS Tahoe NF
Pamela Flick, Defenders of Wildlife
Danny Fry, UCB/SNAMP
Pat Flebbe, USFS
Sarah Ford, Tahoe RCD
Ann Huber, UC/ SNAMP
Kim Ingram, UCCE/ SNAMP
Judie Irwin, El Dorado Fire Safe Council
Maggi Kelly, UCB/SNAMP
Anu Kramer, USFS PSW

Mark Lemon, USFS Sierra NF
Anne Lombardo, UCCE/SNAMP
Sara Lowry, CA Dept of Fish and Game
Kelly Pavlica, USFS Tahoe NF
Larry Peabody, USFS Tahoe NF
Dave Martin, USFS Sierra NF
Kim Rodrigues, UCCE/SNAMP
Richard Rypinski, Unaffiliated
Tony Rodarte, USFS Tahoe NF
Davis Saah, Univ. of San Francisco
Tom Sandelia, CalFire Fresno
Karina Silvas, Sierra Forest Legacy
Scott Stephens, UCB/SNAMP
Frank Stewart, Quincy Library Group
Courtney Walker, Tahoe RCD
Sheila Whitmore, UMN/SNAMP
Don Yasuda, Regional office USFS

Web attendees:
Brittany, Americorp
Richard Bagley
Chris Clavin, TSS Consultants
Lorna Dobrovolny - Ca Dept Fish and Game
Rob Griffith, Univ. of San Francisco
Carolyn Hunsaker, USFS PSW
Dawn Lipton, El Dorado NF
Tad Mason, TSS Consultants

Marc Meyer, USFS
Darca Morgan, Sierra Forest Legacy,
Greg Schroer, USFS
Bruce Springsteen, Placer County Air
Pollution Control Dist
Adriana Sulak, UCB/SNAMP
George Terhune, Quincy Library Group
I. **Welcome and overview:** Dr. Kim Rodrigues opened the meeting by with a brief overview of the Sierra Nevada Adaptive Management Project (SNAMP), including the Fire & Forest Ecosystem Health team (FFEH) which is part of the University of California Science Team (UCST). Kim described the goals for meeting and went over the rules for a positive meeting, discussing the need for interaction among all participants and the desire to focus on issues not personalities. She gave a brief overview the reasons SNAMP came to be and an overview of adaptive management as defined in SNAMP.

II. **Updates on implementation:** Dave Martin, District Ranger for the Sierra National Forest, relayed how the final decision for Sugar Pine would be published in the federal register the following week, beginning the comment period. The earliest start date for fuels treatments will be June 15, 2010. Tony Rodarte, Fuels Officer for the Tahoe National Forest, announced the 30 day comment period for the Last Chance project will begin March 1, 2010, with the earliest start date for implementation being the end of July 2010. Last Chance was delayed due to the need to analyze a fourth alternative, but there has been no change to the project prescriptions.

III. **Implementing and evaluating landscape fuel treatments by Dr. Brandon Collins:** The information on this presentation by Dr. Brandon Collins comes from his paper ‘Challenges and Approaches in Planning Fuel Treatments Across Fire-Excluded Forested Landscapes’ published in the *Journal of Forestry*. The data was collected from SNAMP study sites, as well as treatment projects on the Plumas National Forest. Brandon discussed theoretical versus actual treatment designs, their approaches and constraints; management decision options for treatment designs; and the differing modeling approaches and limitations for treatment evaluations including FlamMap, FARSITE, Forest Vegetation Simulator and ArcFuels. Treatment option models have links with ArcFuels.

*Question:* Obviously one needs expertise in modeling – what do people do when they don’t use models? What is the overlap between models and reality? How do we build on what folks have in their heads as far as forest expertise?

*Answer:* Brandon said he did not know how to compare these two but that it was a good question.

*Question:* What about Defensible Fuel Profile Zones (DFPZs) joining up with commercial landowners?

*Answer:* These are being implemented – treatments are truly becoming landscape in scale.

*Question:* Is there a lack of infrastructure to implement treatments i.e. biomass, etc?

*Answer:* Right now transportation between treatment areas and existing biomass facilities is usually prohibitively expensive. Transportation costs need to be addressed before more biomass facilities can be developed.
Participants discussed how Brandon’s research was useful to understanding the nexus between study and implementation. Different groups have favored different designs and prescriptions for fuels treatments, though all acknowledge the need to work at the landscape scale. Sierra Forest Legacy (SFL) is litigating the 2004 framework decision. They suggest the use of the term ‘obligation’ instead of ‘constraints’ when discussing land base areas that may not be treated in order to move away from a fuel/fire-centric approach.

The Quincy Library Group (QLG), has promoted the use of Defensible Fuel Profile Zones (DFPZs) to first install a network where fires can be stopped, then followed by thinning. QLG members said that 40-45% of that network has been implemented on the ground while some treatments are being held up in litigation.

Participants suggested that dialogue and transparency with the public is needed to before projects to limit and prevent confrontations. The USFS must show grounded reasoning as to why a project has been chosen even though it cannot be expected that a fuels officer can run all the models for treatments. Whatever strategy is chosen must be measured and monitored. It may also help to identify non-negotiable issues and what can be negotiated, especially as pertains to wildlife habitat conservation.

IV. Meta-analysis of fire hazard assessments with in the Sierra Nevada of California by Dr. David Saah: This presentation compared different fuels treatments; Strategically Placed Landscape Area Treatments (SPLATs) and Defensible Fuel Profile Zones (DFPZs) and their effectiveness within the Sierra Nevada. Field based and weather data on these either planned or implemented projects on the Plumas/Lassen National Forest, Sagehen Creek Field Station, the SNAMP Last Chance Project on the Tahoe National Forest and a Kings River site were modeled to evaluate fire behavior and impacts and treatment impacts. Results show that both SPLATs and DFPZs seem to work as predicted. Therefore, resource managers may not need to choose a specific strategy, but use a combination of approaches that achieve the desired results.

Question: If all treatments have relative similarities yet Kings River is ecosilviculture, can that be applied at a more landscape level?
Answer: The starting points are different but the conversations and results may become similar.

Question: Was an economic analysis used in this study?
Answer: Not for this analysis but economics should have been taken into consideration when the treatments were planned.
**Question:** How did you determine the dominant wind direction?
**Answer:** From interviews of local residents/professionals – the information was pulled from the field.

**Question:** How dynamic is wind modeling - does it include wind draws and channels/etc.?
**Answer:** The models only look at the dominant wind direction.

**Question:** How dynamic is wind modeling - does it include wind draws and channels/etc.?
**Answer:** Yes, vectorized wind models were developed that capture wind draws and channels developed from the dominate wind direction. To be clear, vectorized wind models were developed for the problem direction at pre-defined speeds held constant between the four sites.

**Question:** Have any sites been tested by fire?
**Answer:** No. However, on the Plumas/Lassen a fire occurred close to the treatment and from that we learned that we understand certain things.

**Question:** Why do SPLAT effects between Last Chance and Sagehen differ in fire behavior?
**Answer:** The treatment designs started similarly but instillation became different. Last Chance treatments are big and centrally located.

**Question:** Re. treatments in the Plumas Lassen Administrative Study (PLAS), they are broken up somewhat due to land allocations, there is less continuity, is this really a barrier?
**Answer:** That question has not been explored.

**Question:** Did you run other wind direction scenarios?
**Answer:** No, though variable wind was modeled on Last Chance and the results were about the same.

**Question:** These are non-suppression simulations; do they work for suppression efforts?
**Answer:** That question is outside the scope of this study, but could lend itself to a look.

**Question:** Did you consider using historic weather data in the modeling?
**Answer:** That was deliberated, but we chose not to. We wanted to keep wind a constant at all the sites for this comparison.

**V. Discussion:** What are the implications for managers of the study results? Kim Rodrigues facilitated a group discussion in which the following topics were discussed.

**Modeling:** Models are not answer tools but a means to communicate and learn from. The data seems to not be consistent throughout the Sierra; however, meta-analysis can try to address this...
issue. All four treatments have positive outcomes from the meta-analysis, but they have changed somewhat because they are not static. Intuition and technology are fine tuning each other to help inform best management practices. It was suggested that these results should be used throughout the Sierra to get treatments done.

*Trust & conflict solving:* We can share science, but we need to build trust and common ground. All groups must be brought together to resolve conflicts and issues and to encourage collaboration. Can we look at areas on the landscape level in which we can agree on action? We need public acceptance and trust for science to be implemented and reasons to trust the Forest Service once again. How the Forest Service responds to anti-trust comments based on past actions will often determine the outcome.

*Integration & science:* Science isn’t going to solve all problems, but it will provide the tools needed for conversation and integration. Questions that need to be addressed include: how to further research and do good science that is relevant to management, how treatments are designed and how to share that information, and identifying the issues and problems all need to be addressed. It is always good to know what the other opinions are regarding resource management. To improve the acceptance of projects, it is important to keep resource managers from all disciplines and the public informed on best available information, how the transition from science to implementation is done, whether results are acceptable, and to take into consideration all issues and topics when we designing future projects. It is important to not look at science as ‘black or white, right or wrong’ but as a guide and there are some very good examples of science guiding management such as Dinkey Creek.

*Role of SNAMP:* The group discussed how SNAMP relates to forest management - specifically what SNAMP have scientists learned and what issues they are trying to understand. The public participation team is looking at the social science aspect of the project and there are other teams looking at other areas such as water quality, and wildlife. One participant asked what SNAMP could do to bring the tools/technology/expertise to the Forest Service districts? John Battles said that the SNAMP MOU Partners asked for scientists to do science, not developing management directives.

*The Forest Service treatments:* Some people attended the meeting to get information from Forest Service management on what issues are being addressed for Sugar Pine and how adaptive management works within the Forest Service. They said it should be clearly stated upfront what the negotiable and non-negotiable areas are. There are continuing issues and debates on the ROD 2004 versus 2001 framework that have not been answered satisfactorily for some people.

*Other issues:* The secure rural schools funding is coming to an end in 2012. Economics, carbon credits and climate change are not issues addressed by SNAMP but these would be good topics
for additional analysis, though this is not within the study framework for SNAMP. Carbon credits were briefly discussed and found not to be the ‘silver bullet’ because of their dependence on too many multiple factors.

VI. Next Steps:

- Participants suggested the next SNAMP Integration Team meeting should be with the UC Fisher Team. It should include what habitat is valuable to the fisher, the structural needs versus fuel treatments and how to balance and achieve both. A discussion on fisher mortality is also important.
- Participants supported writing and distributing research briefs of UCST published papers.
- Participants suggested supporting secondary studies to include carbon credits/sequestration, economic analysis (including litigation costs, timber market and infrastructure) and social components that tie in with economics.
- Participants suggested a discussion on what is an ecological restored forest and what does resiliency mean?
- There is a potential for the spatial team to work collaboratively with others in addressing key questions about future treatment designs.