

## **SNAMP 2013 1<sup>st</sup> Quarter MOU Partners Meeting**

Monday, April 29, 2013, 10:00 am – 3:00 pm, Davis, CA

### *Notes*

#### *Participants:*

**University of California Science Team (UCST):** Roger Bales, John Battles, Brandon Collins, Rocky Gutiérrez, Peter Hopkinson, Lynn Huntsinger, Kim Ingram, Debra Larson, Shufei Lei, Maggi Kelly, Susie Kocher, Anne Lombardo, Zach Peery, Kim Rodrigues, Scott Stephens, Adriana Sulak – by phone

**Memorandum of Understanding Partners (MOUP):** Rick Bottoms (USFS-PSW), Patricia Flebbe (USFS), Cay Goude (USFWS), Bernie Gyant (USFS), Jayne Handley (USFS), Russ Henly (CalFire), MaryBeth Hennessy (USFS), Jeremiah Karuzas (USFWS), Chris Keithley (CalFire), Eric Loft (CalDFW), Pat Manley (USFS-PSW), Dave Martin (USFS) – by phone, Christine Nota (USFS), Tony Rodarte (USFS), Deb Whitman (USFS)

**Other attendees:** Reg Barrett (UC Berkeley)

**Meeting Purpose:** To provide direct communication between the UCST and MOUP on a quarterly basis, as committed

#### ***Desired Outcomes:***

- Shared understanding of collaborative adaptive management, SNAMP process agreements, and MOU partner roles;
- Shared understanding of 2014 SNAMP budget;
- Update on SNAMP fisher team;
- Input from MOUP leading to shared understanding of SNAMP integration framework and integration metrics, and how integrated results might be shared with multiple audiences;
- Progress of UCST: First quarter update report (in written form, provided via email or website)
- Scheduling of quarterly meetings for 2013 and 2013 Annual meeting (via email)

### **ACTION ITEMS**

1. The MOUP would like to see examples of the requests for and use of SNAMP data. Examples will be posted on the website. (John, Maggi, Rocky).

2. UCST and MOUP need to develop a plan for archiving SNAMP data at the next MOUP meeting. We will need to decide:
  - a. Where will data will be archived post-SNAMP?
  - b. In what format will it be archived?
  - c. How will it be organized and maintained?
  - d. Before the next MOUP meeting:
    - i. The UCST will provide sample data sets
    - ii. The MOUP will decide what sort of information they want available and in what form
3. How can SNAMP actively engage MOU partners?
  - a. Hold MOUP meetings twice a year in person
  - b. Seek input on the meeting agenda from UCST and MOUP
4. Find replacement fisher team leader before July.
5. At the next MOUP meeting, discuss transition from SNAMP fisher to the “Sugar Pine fisher project”.
6. Decide how to pay for the lidar re-flight of the Last Chance project- \$38,000 by June 1. It needs to be flown ASAP.
7. If the MOUP has questions about the budget report, let the UCST know what details are needed.
8. Before the next meeting, the MOUP, Roger, and John need to meet to clarify the Water Team’s budgetary needs.
9. Between now and the July MOUP meeting, the UCST will share preferred integration models and metrics with MOUP.

## **AGREEMENTS**

The SNAMP final report will be reviewed as follows:

- The UCST will give a draft of the report to all MOUP at the same time.
- The MOUP will share comments on the draft with each other.
- The UCST will revise if needed.
- UCST will disclose all suggestions and changes.
- The UCST will discuss publically the changes they make to the report.

For fiduciary/contractual project reports related to SNAMP funding: the preferred action is to receive permission from the contracting agency to release the report simultaneously to all MOUP. If this is not feasible, timely release of contract reports by the contracting agency to other MOU partners would be desirable.

1. If possible, the MOUP need to decide whether they are willing to release SNAMP-related contract reports to all partners simultaneously.

In the SNAMP final report, the term “trade-off” will be avoided in favor of “effect,” “impact” or similar terms.

The decision making process used by the MOUP and UCST:

1. Consensus for both the UCST and MOUP. MOU Partners need to define consensus.
2. Fall back for UCST: Explain “What we couldn’t agree on and why.”

3. The MOUP may wish to formalize a fall back process for decision-making.

## MEETING NOTES

**Welcome and overview** – Kim Rodrigues of the SNAMP Public Participation Team reviewed meeting goals and also the roles, relationships, and responsibilities of the MOU Partners and UC Science Team. The ground rules are to:

- 1) Start and end on time
- 2) Be respectful of others
- 3) Only one person speaks at a time
- 4) Focus on issues – not people or personalities
- 5) Say what you have to say – only once
- 6) Use inquiry to seek understanding
- 7) Share in the success of the meeting – focus on results, process and relationships
- 8) No sidebar conversations
- 9) Check cellphones/computers during breaks only
- 10) Honor time commitments – the agenda is ambitious
- 11) Take care of yourself
- 12) Enjoy yourself.

She also put together ground rules for meeting leaders which in this case are Patricia Flebbe and John Battles. They are to:

- 1) Help the team identify purpose
- 2) Set scope and boundaries
- 3) Demonstrate understanding and support for the project
- 4) Define and maintain role as supporter and active listener as well as contributor
- 5) Actively listen to all perspectives.

**Definitions of adaptive management and collaborative adaptive management** (handout attached at end of notes)

Kim Rodrigues described the project's definition of adaptive management (AM) and the implied roles and responsibilities. AM involves adjusting management in response to experimentally applied treatments. The treatments are being applied now. The UCST will not be able to close the adaptive management loop – this is the role of the US Forest Service and other MOUPs – and so the UCST needs to be clear about what we can and cannot deliver.

Collaborative adaptive management (CAM) requires “committed participation at all levels,” and is time intensive because it requires building understanding and respect between participants. Our CAM process is anchored in our key agreements, neutrality and data sharing agreements, frequent communication, and an open and transparent process.

### **Data Sharing Agreement- Maggi Kelly**

The UC Science Team agreement: <http://snamp.cnr.berkeley.edu/documents/302/>

The process for sharing data within the UC Science Team is to make a request to the individual principal investigator (PI). For sharing data outside UC Science Team, the intellectual property rights belong to the PI. All requests for data should be made in writing to the PI. Password protected data are not ready to be shared. When SNAMP data is used, users must acknowledge where the data are from and funding sources. Larger issues pertaining to data sharing are:

1. How long should the data be available?
2. Where should the data be stored?
3. Who will maintain the data post-SNAMP?

*Current data sharing* - The group identified some examples of data requests from agency partners that have been made in the past. The lidar data has been requested by the USFS and other agencies. Forest inventory data including final products, fuel loads, and plot level summaries was also requested by the USFS. The Owl Team has been asked for data from the private sector too - SPI wanted to know if there were owls on their land. Kim Rodrigues proposed that examples of how SNAMP data has been shared in the past be posted on the SNAMP website.

*Data archiving* - The MOU Partners then discussed the preferred way for archiving SNAMP data for the long-term. How and where data will be posted and how it is organized and maintained is important to work out. The data need to: 1) Have relevant formatting and 2) Be available and downloadable. Roger Bales said that he has found formatting and organizing water data for public sharing to be time-intensive and expensive. He thinks it would require at least 1 FTE for a year to format and archive all the data. Another option is to provide data summaries/trends rather than raw data. This might actually be more useful to a wider audience.

Rocky Gutiérrez said he was concerned about the amount of data to be shared. The Owl Team has 25 years of data. Some of these were not paid for by the US Forest Service and so are not required to be made public, even though the data were used in SNAMP analyses. John said that SNAMP has a written policy that data collected prior to SNAMP are not subject to agreements to share data.

John Battles suggested that the UCST needs guidance from the MOUP on how to archive SNAMP data. Several agencies have funded SNAMP so the archive will need to allow multiple agencies to have access. The UCST will discuss what format the data can be released in for a given budget. MOU Partners said that the sooner they know how the data will be available the better because they will need to plan for additional staff time to work on managing the data.

***Action items:***

- *The MOU Partners will provide guidance on what data they want made available and how to format the data.*
- *The UCST will provide sample datasets for MOUP to evaluate example formats.*

**Neutrality Agreement – Kim Rodrigues**

The SNAMP UC Science Team Statement of Neutrality grew out of early contentious public meetings. [<http://snamp.cnr.berkeley.edu/documents/335/>]

The group revisited the issue that Cay Goode brought forth on a previous MOUP call about the appearance that a report was altered to please the funding agency. A fiduciary report to the USFS by the Owl Team included data that were presented at the 2011 annual meeting showing the population trends on California Spotted Owl using a new analysis that included new owls that had been excluded from previous analyses because of data uncertainty. The owl team was satisfied that previously excluded data were more reliable than previously thought and so included them in the new analysis. When the USFS reviewed the report, they asked the Owl Team to include both analyses, which the scientists felt was reasonable. Unfortunately, this led some stakeholders to conclude that SNAMP science was being filtered by funders.

John Battles reiterated that the SNAMP final report will be public and all contents will be at the sole discretion of the UC Science Team. Any information used will be shared openly and will be available to MOUP and stakeholders. The SNAMP final report will be provided to all MOUP at the same time for comments. The report may be revised based on comments. All of the comments and revisions will be included in the final report. All individual chapters of the SNAMP final report will also be peer-reviewed.

The issue to resolve is the process for how to handle the multiple fiduciary reports that go directly to funder agencies (e.g., Department of Water Resources, US Forest Service, and the Sierra Nevada Conservancy) and are required to comply with the grant. The current process is that the UCST produces a separate contractual report for each funding agency contract. The funding agency then needs to accept the report and confirm that UC has completed the contract.

US Forest Service staff agreed that it is important to produce these fiduciary reports to ensure accountability to taxpayers and that it is also important to avoid the impression that the Forest Service is filtering data and science produced by the UC Science Team.

Kim Rodrigues reiterated that it is in everyone's best interest to be open and transparent because otherwise SNAMP science may fall under suspicion. What should the UCST do if a funding agency makes comments or requests changes to data presentation that change a report? One solution is to have all MOU Partners receive reports at the same time so that partner agencies can review the report before it gets released. Comments can be released to the public.

However, not all funders may have a policy allowing sharing all reports with the public. Rocky said that he believes the Owl Team is obligated by contract with the University of Wisconsin to give the Eldorado Owl Study annual report directly to the Forest Service first, as the Eldorado Owl Study contract is not part of SNAMP. He said he did not feel he could release the Eldorado annual report simultaneously to other agencies unless the Forest Service contracting officer says it was okay. A solution to this problem would be to disclose to the MOUP any changes made to a report as a result of input by the funding agency. Zach Peery said the Owl Team would talk with the contracting officer for the Eldorado Owl Study and see what can and cannot be released but would disclose any changes made.

- **Decision:** *Suggested changes to fiduciary reports by MOUP and changes made based on those comments will be disclosed.*

**Roles of the MOUP:** Next, the group discussed the role of the MOU Partners in the project and how to re-engage the group following transitions in key staff. One suggestion for dealing with agency staff turnover was to have executive-level briefings in each agency every year as well as the regular MOUP quarterly meetings.

Generally, there are difficult issues to deal with at each MOUP meeting. It may help to deal with these issues first. Making sure that the agenda reflects the concerns of partner agencies is also important to engaging them. This would require more input from the MOUP in building meeting agendas. Also, meeting in person is much more effective for engaging participation than conference calls.

Another way to improve engagement is to be very clear on the MOUP decision-making process. The mode all along has been consensus. It is important to define consensus further, however. Kim Rodrigues suggested the following definition: Agreements that all parties will fully support (rather than simply an agreement that all parties can “live with”). She also suggested a fall back process in case it is not possible to reach consensus. The UC Science Team’s fallback process is to explain “What we couldn’t agree on and why.”

***Action Items:***

- *The MOUP will hold in-person meetings twice a year and will share input to the meeting agenda with the UCST to identify major issues on which decisions by MOUP are necessary.*
- *The MOUP will review and define their decision making process.*

**Fisher Team Update** – John Battles announced that Dr. Rick Sweitzer tendered his resignation effective May 3, 2013. The UCST is currently looking for a replacement. The goal is to have a decision about the replacement before this July. The UCST needs to ensure analysis of the seven years of SNAMP fisher data and its integration into the SNAMP final report. The UCST also want to ensure a smooth transition between SNAMP and the “Sugar Pine Fisher Project” that will take over the on-going fisher research in January 2014.

Intellectual property rights should not inhibit SNAMP integration of data. The University of California owns the SNAMP data, and the Forest Service has data rights. The SNAMP final report is a contractual obligation, and production of it is the UCST’s first priority. SNAMP is requesting funding from the MOUP for analysis and integration of fisher data and work in 2104. For scientific papers, Rick and Reg Barrett have intellectual property rights to the fisher data.

MOU Partners were interested in having no time lag between SNAMP and the Sugar Pine Fisher Project and in better understanding how the Forest Service is going to fold them together. At this point, it is not clear whether the academic replacing Rick for the remainder of SNAMP will be the person who continues in the Sugar Pine Fisher Project, but the assumption is that currently collared fisher will continue on. Cay inquired whether the USFS will use a transparent and collaborative process for Sugar Pine project and asked that the MOUP discuss this at the next meeting.

***Action Item:***



- *The MOUP will discuss this topic during July Q2 meeting.*

**SNAMP budget** – John Battles went over the current SNAMP timeline. All post-treatment data collection will end by December 2013. The UC Science Team is asking for funding to do analysis, integration and report writing in 2014. John asked the UCST principal investigators (PIs) what they needed to realize the goal of SNAMP. The total reviewed at the meeting was \$1,087,645 for 2014.

*Lidar reflight (2013)* - Maggi Kelley discussed the need to re-fly lidar on the Last Chance project this summer. The whole northern site needs to be redone because it snowed halfway through the acquisition in the fall. If only half of the site was reflown, the two halves would not match or have uniform point density. Some funding was saved when the second half of the flight was cancelled due to snow, but additional funding is needed to re-fly the whole area with NCALM [National Center for Airborne Laser Mapping]. NCALM has provided all the SNAMP lidar data so far. They are a non-profit academic consortium and very economical.

Rick Bottoms suggested the UCST look into using a USFS Pacific Southwest Research station plane for flying lidar. One problem with this is lead time as the flight needs to happen as soon as possible to provide post-treatment lidar data. Also, NCALM processes the lidar data to UCST specifications, which can take up to three months.

The MOU Partners discussed whose responsibility it was to cover the additional cost. They asked whether there was any flexibility in this year’s UCST budget to cover the flight. They also discussed whether there may be end of the fiscal year dollars in agencies that could be applied. The lidar funding decision needs to be made within the next two weeks.

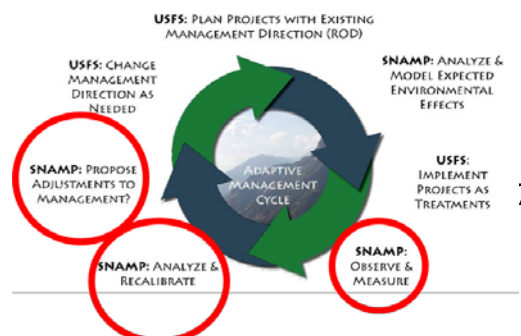
*Water budget (2014)* – Roger Bales requested \$350,000 for SNAMP water research in 2014. Last year (2012), the Water Team’s budget was \$150,000, which came from the Department of Water Resources. Bernie Gyant was concerned that the MOU Partners had started to view the USFS as the default funder. Cay Goode reiterated that DWR should take most of the financial responsibility for water research.

Kim Rodrigues asked those assembled what their highest priorities for SNAMP water research products are. John reiterated that the project is integrated and that the UCST is not willing to jettison one component of the project. Patricia suggested the UCST needed to look at a lower budget for 2014 and assess what the consequences would be, while PIs reiterated that carrying out analysis is just as expensive as doing fieldwork.

**Action Item:**

- *The Water Team will clarify their budget with Patricia, John, Martha, and Roger to clarify what Water Team research elements are specifically to meet the SNAMP deliverables and which are beyond the SNAMP purview.*

**Integration**- Peter Hopkinson reviewed the Integration roadmap with the MOUP and a graphic developed to help visualize the process.



In the schematic, the UCST is currently 1) observing and measuring 2) analyzing and recalibrating and 3) proposing adjustments to management. Each research team will choose one or two primary metrics for integration. These will be reported on in the integration section of the final report. All the other metrics will be in each team's individual report.

Cay Goode re-iterated that she did not want discussion of any "tradeoffs" in the integrated report, as this gives the impression that species can be traded off for other benefits. She suggested use of the word "effects" or "impacts" instead.

Peter said that using these integration metrics, each team will make two graphs: 1) effects of SPLATs and no SPLATs without fire over 30 years, and 2) effects of SPLATs and no SPLATs with a fire at 5 years. The UCST does not plan to have multiple integration models.

Fire metrics of interest to most in the public may be the probability of a fire occurring. The scale at which this is defined is important because the probability of a fire occurring in a small stand is only about 3% in a given year. However, if you look at fire at a larger scale, the probabilities are much harder.

A big challenge for the UCST will be to present the data in a way that captures the uncertainty inherent in them and to make the computer models used to infer results understandable. One solution is to present the data in different ways to meet different audience needs.

***Action Items:***

- *The UCST will share their preferred integration model with the MOUP and be prepared to discuss why it was chosen.*
- *A July meeting date will be chosen (July 30<sup>th</sup> in Sacramento)*
- *Peter, John, Susie will work on an agenda for that meeting.*

**Wrap Up** - Kim Rodrigues asked the group to reflect on what worked well for this meeting. Participants said they liked the good attendance, open frank discussion, and starting with the controversial discussions first. The next meeting could be better by having a better meeting room, sending out hand-outs in advance, having more short breaks for networking, and making decisions clearly and then clearly restating what decisions were made. Participants also filled out evaluation forms about the meeting. Responses to some of these questions are listed below.



**SNAMP evaluation results - MOUP meeting, 4/29/2013, Davis; 22 surveys returned**

1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree, 6=NA)						(yes; no; maybe)	
The goals and objectives of the event were clearly stated	Constructive discussion was encouraged by facilitators	I felt my comments were heard by the UC scientists	I felt my comments were heard by MOUP attendees	There is a clear plan of action for the future on today's issues	I learned something new at this event	Are you comfortable with a UC affiliated facilitator from SNAMP's PPT team for MOUP meetings like this one?	Would you prefer the MOUP seek a facilitator from outside of SNAMP?
4.4	4.7	4.6	4.5	4.0	4.3	20 yes; 2 no answer	18 no, 1 yes, 2 maybe, 1 no answer
What is the most interesting or useful thing that you learned today:							
what the science team is thinking about integration; issues that need to be solved	fisher project status & other info as I have not been closely involved lately	large variety attendance (science team, MOUP, gov't agency)	DWRs commitment of only \$150,000 to water	discussion about process is important and helps move collaboration forward and resolves issues	learned more about MOUPs and their priorities	status of project and funding issues	shared understanding
discussion	agency realities						

### What is adaptive management?

- It is based on the **premise that ecosystems are complex, dynamic and unpredictable**
- It involves **deliberate experimentation** that hopes to provide information to resource managers **on appropriate spatial and temporal scales**
- It is the process of **adjusting management** in response to new information, knowledge or technologies.
- Must be **clear** and designed to **meet specific desired outcomes**

### What is collaborative adaptive management (CAM)? How does it differ from AM?

- CAM is **many thing to different people**
- CAM differs from AM in that it involves a **greater level of participation** from stakeholders
- CAM is a **participatory process** based on shared understanding and mutual learning
- The CAM process supports project implementation, monitors project impacts and reviews results with the engagement and support of active stakeholders
- CAM **requires a commitment of time, people and resources** as well as the **identification of boundaries and constraints**
- Provides a **safe** environment
- **Guides** the group(s) to shared goals
- Designed to **build understanding and respect**
- Practices **active listening and sharing**
- Ultimately seeking **agreement** and **building trust**.
- Requires true **labor**, extensive **time** and a sincere **commitment** from all participants

### Definitions from MOUP agreement

- Through multi-party (collaborative) adaptive management seek to “build stakeholder understanding and trust in the implementation of the ROD. The Forest Service and State recognize the value of using the University of California (“University”) as a neutral third party with expertise in projects of this sort to assist in developing a process with the Forest Service and interested stakeholders” (USFS)
- “This [CAM] process would include the development and review of individual project implementation monitoring and involve a feedback mechanism to ensure that appropriate changes are implemented when desired conditions and conservation goals are not being met at an individual project and landscape level.” (F&W)
- SNAMP requires the “...full engagement by the Forest Service in a collaborative adaptive management and monitoring process with interested federal, state, local

stakeholders, government agencies, Native American Tribal representatives and the scientific community as full partners directed previously by Congress and consistent with the [Western Governors Association] WGA 10-Year Comprehensive Strategy and Implementation Plan. This adaptive management approach can improve forest management practices on lands owned and managed by other entities, both public and private.” (State)

- SNAMP, with its “collaboratively developed and refined adaptive management strategy of annual monitoring, evaluation and accountability should inform management and interested stakeholders whether direction is being implemented as described, whether management practices are resulting in expected outcomes, and whether desired conditions are being met over appropriate timeframes. The adaptive management strategy should also offer a shared basis for designing and tracking changes or improvements at the stand and/or larger landscape levels.” (all)
- SNAMP will include a “neutral third party to assist in the development of an adaptive management and monitoring system, implement the system, and then use the information obtained through this development and implementation process to inform the implementation of adaptive management and monitoring processes for future projects involving different areas. The third party must have impeccable scientific credentials as well as the skill and experience to sort through often apparently contradictory data and trends. In addition to their technical expertise, the party must also have the trust and respect of a wide variety of stakeholders.” (UCST)