Conference Call regarding further discussion of the Owl Workplan for SNAMP
1/28/08
Facilitated by Kim Rodrigues, Susan Clark (notes)

Attendees:

Kim Rodrigues	Mike Chapel	Darca Morgan
Susan Clark	Sue Britting	Matt Triggs
Rocky	Shelia Whitmore	
Doug	Adriana Sulak	
Linda Blum	Anne Lombardo	

Kim first anchored the purposes of call:
1) To provide an update on workplan for the owl.
2) To encourage more deliberate dialogue with all partners including any unanswered questions from the Q2 meeting.
3) To set up opportunities for further dialogue.

It was noted that the current update to the owl workplan is posted on SNAMP website for review.

Furthermore Rocky introduced the new assistant project leader, Sheila Whitmore, who will be handling field aspects of the project

Rocky then presented an update from last Q2 meeting that included the 4 options for determining the feasibility of increasing the sample size.
1) Retrospective analysis of similar projects.
2) Find additional sites that will be treated on the Eldorado Forest to use as additional study sites.
3) Find sites with owl Protected Activity Centers (PACs) that have treatments in close proximity
4) Look for any site where there was a treatment on either the Tahoe or Eldorado Forests.

Current status within the project.
The owl team is in the middle of the process of figuring out what types of treatments have been done and whether these treatments match up with SNAMP (SPLAT-like) prescriptions, as guided by the Record of Decision 2004. At this point, they have determined that at least 3 - 6 owl territory sites on the El Dorado are planned for similar treatments to SPLATS. In addition, the owl team may be able to pick up a few more sites based on areas that are currently under treatment. They are also investigating this approach on the Tahoe National Forest. This data has just been received by Sheila and will be analyzed right away. In addition to these two forests, they are also looking for information on treatments similar to SPLAT prescriptions throughout the Sierra Nevada.

One of the issues the owl team is facing is that with retrospective analysis, it is not easy to discern how well historic treatments match up to SPLAT prescriptions based on the descriptions in the current documentation. They are hoping that they may be able to determine this relationship better when they are in the field this coming season.

Based on a question from Sue Britting, Rocky agreed that it was hard to distinguish SPLAT-like treatments in the retrospective analysis and that Option #2 will provide more possibilities for increasing the sample size.

Based on a request from Sue, Doug shared the names of the treatments the owl team are currently investigating on the Eldorado Forest. These include: "Hey Joe", "Misfire", "Stumpy", "O'Leary's Cow", "Quintette". Sue pointed out that Quintette and O'Leary's Cow are in the middle of analysis at the USFS so that data should be available for the owl team.

In addition, Doug pointed out that the owl team is investigating 2 other long-term owl studies on the American River RD ("Sugar" and "GT Gap") that have recently received SPLAT treatments.

Integration between Teams.
With all the information that the owl team is generating, Kim then asked Rocky and Doug if they have brought the Fire Team into the discussion of SPLAT identification, especially regarding the retrospective analysis. This would allow for the Fire team to help identify whether existing treatments fit the criteria for SPLAT prescriptions.

Doug then made the point that SPLAT prescriptions have lots of variability and he will work with the fire team to determine if historical and current treatments fit under broad parameters. Rocky then pointed out that they have also used core samples from the trees to determine when treatments have taken place (the assumption is that after the treatments there is a "release" with rapid growth that is recorded in the rings).

Sue Britting then provided some new information to the owl team based on her experiences. She pointed out that regarding the historic projects, there should be NEPA docs that contain summary of projects. These summaries will detail alternatives that will describe what treatments were proposed. Sue suggested that if you can identify the project name, you could track it back and request the NEPA docs with the details. Both Rocky and Doug thanked Sue for the information and will get back to the team regarding what they find.

Linda Blum then asked a question regarding how do you decide if you have a large enough sample size, especially if you are developing a project plan that focuses on both prospective vs. retrospective analysis.

Rocky then stated that determining the sample size is dependent on an estimation of how much variation there is in the data collected from the sample. This estimation can be developed from a literature search, a pilot study, or with some presampling. You then ask

how much variability there is and how much effect do you expect on the study site given the type of treatment. Computer modeling is a new technique that can help you estimate this as well. He specifically mentioned that Jim Hines (USGS) is working on a number of simulations that will allow for analysis of sample size needs.

Doug then gave a concrete example for this project. He stated that the owl team already has some idea of the variation within the sample size based on a 2007 publication by Rocky. This study looked at the effects of broad habitat alternations including wildfire. They reported that they were able to see changes in colonization and extinction rates based on the sample size that they used and the broad treatments employed. From this work, the owl team now has some idea of the magnitude of variation.

Linda Blum then brought up a concern that it sounded like the modeling and analysis was looking at the actions taken rather than evaluating what was left behind. Specifically, she was concerned that the study focus on what trees are being removed from the owl territory rather than what is left after the treatment.

Rocky responded that modeling is based on "likelihood estimation" or "Bayesian analysis". Key to both of these approaches is the ability to analyze covariance or multiple variables. These can include how much area was treated, how much mature forest remains, and/or how much heterogeneity exists in the site around owls. With this type of analysis, you can ask questions concerning extinction or colonization rates with more than one predictor variable. As a result, you evaluate what was there before, taken away or left behind. The role of the research team is then to determine the appropriate response variables. It is critical that the right predictors are chosen. These are the ones that you can easily measure and have the possibility of resulting in measurable change. The owl team believes that it will take a year or two to figure out the best variables.

Kim then pointed out that an important goal of the Triggers and Threshold (T/T) group is to explore of the role of these variables in Adaptive Management processes with a multidisciplinary and multiperspective focus. Kim used this example to demonstrate how information on the process of identifying predictor variables by the owl team can be used in the T/T discussions.

Rocky then used Kim's request to explain the next steps for the owl team. He reported that there are a set of candidate models that are being tested in the canopy reduction study (the report is due out in June 08). Rocky offered to share these findings with T/T as the analysis unfolds.

Doug then expanded on this point to propose that as they identify important variables from the canopy reduction study, the owl team will bring these to the T/T group and elicit input from the T/T participants. Doug also proposed that candidate models can also be posted on the web. He proposes that the model can the verbalized (i.e. owl occupancy is effected by the number of acres that are treated) easily because it is these verbalizations that they will be inserting into a mathematical analysis. Doug then demonstrated the power of this approach. For instance, the owl team could come up with ten candidate

models, but they still could have missed something. Doug also mentioned that a problem for researchers in their peer review is the question of whether the right model was chosen. Therefore with feedback from the stakeholders, the probability of missing an important variable should be reduced. Furthermore, it will be interesting to see the response from both the peer review and public regarding a model with a wider input from multiple perspectives.

Key Agreement:
1. As the owl team considers predictive variables with concurrent models, they will post verbal descriptions of these models on the web site and allow for interaction within and between partners and stakeholders.

2. Doug agreed to try to attend the 2/26 Q3 meeting as a means to support more dialogue. Rocky will be unable to attend due to his class schedule.

3. Kim will anchor and post upcoming dates on the web so that all participants can plan for the future meetings. These will include proposed periodic updates.

4. Kim will share the results of this conversation with the larger UCST and MOUP as a means to continue the dialogue within the teams to make sure that they are integrated.

At the end of the call, Kim anchored with Doug the flow of information for updates. Anne Lombardo (CE) and Ann Huber (UCST) will coordinate the information flow to make these updates as seamless as possible. Doug is to send any information for posting on the web to Maggi Kelly with cc's to Ann Huber and Anne Lombardo. Anne L will monitor weekly public posting of comments to the website and she will let Ann H as well as the respective UCST scientists know.