



SNAMP UCST Data Sharing Agreement Final Version – March 2011

Background

The SNAMP Project will collect, analyze and generate large datasets, from data collected by teams. These data will span field observations to remotely measured spatial data. The UC Science Team has a commitment to make our workplan, meeting notes, and discussions public and transparent, yet we have not yet formally adopted a protocol for sharing of data. This document outlines our guidelines and constraints for 1) sharing data across teams; 2) sharing data with the public; and 3) publication of scientific results.

We are committed to interdisciplinary science in adaptive management of Sierra Nevada forest systems. We recognize that there will be significant data sharing within and among the UC Science Teams, among the UC Science Team and the MOU Partners, and between the UC Science Team and public stakeholders. We will expedite data sharing among teams, which will speed the release of data that to inform management and monitoring process to the Forest Service, and we will strive to share data with the public whenever possible.

Within Science Team Data Sharing Guidelines

- 1) Proprietary rights to the data begin with the lead PI of the research teams that have collected the data. Many of these researchers within teams are graduate students, post-docs, or scientists early in their careers. Therefore, they, under the supervision of their PI, have the first right to publish papers from their work.
- 2) There is a limited time period that the lead research team PIs have proprietary rights to their data before it becomes available to the rest of the UC Science Team. To encourage interdisciplinary publications produced in a timely manner, the scientists will be given exclusive rights 12 months after the date of last post-treatment data collection in order to prepare and submit manuscripts for publication. If additional lab analysis is required to process field samples then the 12-month period begins when processing is complete. After this date, data will be shared with other members of the UC Science Team with the constraints given below. During this 12-month period, any person requesting data must obtain written approval of the appropriate PI. Negotiations between the parties are encouraged with regard to a data request but if that PI decides that the proposed work would duplicate their efforts, they can deny the request. Note that these guidelines only refer to data collected during the timeframe of the SNAMP project; other data that did not originate with SNAMP are not subject to these guidelines.
- 3) All data requests from any person must be accompanied by a written proposal that includes clear hypotheses, and a list of collaborators. The proposal must be submitted to the science team lead PI that has overseen the study in question and copied to the program manager. This is to insure that one person (the lead PI) will know exactly who has requested data. The collaborator agrees not to further share the data without first requesting permission from the PI and providing the PI with a list of individuals who will be given access to the data. Any

changes in hypothesis or scope will also require an updated proposal to be reviewed by the PI. Interdisciplinary research publications are encouraged.

- 4) All data requests must be approved in writing by the science team lead PI that has overseen the study in question. Co-authorship of papers produced from the shared data must be negotiated with the lead PI of the science team and research team scientists (see Publication Guidelines section of this document). It is expected that in cases where substantial amounts of information are shared that at least one person from the primary study will be a co-author on any publication. After the 12-month period defined above, discipline scientists cannot deny requests for data from other project participants.
- 5) If two or more people or groups of people propose similar analyses using SNAMP data, the UC Science Team will negotiate with the parties to see if a mutually beneficial decision is possible. If this cannot be done, a vote from the UC Science Team will decide the issue.
- 6) All science team PIs must archive data relevant to SNAMP analyses at least annually. This is to ensure a complete copy of all data resides in the database.
- 7) All publications produced from the SNAMP must acknowledge the MOU Partners (see SNAMP website for list) who funded the project. A publication number from the SNAMP project should also be included (i.e. "this is publication #xx of the Sierra Nevada Adaptive Management Project"). All manuscripts should be submitted to the Academic Coordinator prior to journal submission to review for consistency of the above items.
- 8) In situations where data used in some SNAMP analyses precede the initiation of the SNAMP project, and hence have historical, long-term proprietary rights by the PI, these raw data may be withheld by the PI from data sharing with any internal or external party.
- 9) When writing other science team proposals to funding agencies (e.g. NSF, NASA) we need to consider which members should be considered as Co-PIs on the proposals. All external proposals must be submitted to the Academic Coordinator prior to submission to check for consistency and to alert the Academic Coordinator that a grant submission is imminent.

Public Data Sharing Guidelines

These guidelines discuss all data including spatial data and non-spatial data. Types of spatial data include study area boundaries, field plot locations, remotely sensed imagery, and the results derived from analyses of spatial data.

- 1) The UC Science Team will make efforts to make spatial and non-spatial data public whenever possible and/or appropriate. There are compelling reasons why a scientist might not want to distribute data, for example: disclosure of location of equipment or sensitive, rare, or endangered species might put them at risk; data might not be complete; data might have proprietary restrictions originating outside of the UC Science Team.
- 2) Proprietary rights to the data begin with the lead PIs of the research teams that have collected the data, and each PI will have the ability to decide which of their team's data can be shared, either internally (within UC Science Team) subject to the within Science Team guidelines above or externally (outside of UC Science Team).
- 3) In situations where data used in some SNAMP analyses precede the initiation of the SNAMP project, and hence have historical, long-term proprietary rights by the PI, these raw data may be withheld by the PI from data sharing with any internal or external party.
- 4) For spatial data that is common across all teams, the spatial team will review and make recommendations on the appropriate format for data sharing. We are concerned about distributing overly large file sizes.

SNAMP Publication Guidelines

Authorship of papers in this multi-discipline, multi-site, and multi-investigator study could become controversial. Therefore, the UC Science Team has established the following guidelines:

- 1) Conceptualization or proposals to proceed with drafting of a manuscript by any SNAMP science team member or cooperator should be discussed with the PI(s) of the project(s) whose data will support the analysis within the manuscript.
- 2) Authorship will be determined by the contribution(s) of each person to each individual paper. Ideally, those contributions and the order of authorship would be determined before a paper is drafted.
- 3) To be included as an author, an individual must make significant intellectual contributions (as a part of conception, funding, design, data collection, data analysis, and/or interpretation) and make significant contributions to preparation of the manuscript (write, review, or edit). A person can only be included as an author if he/she is willing to be held responsible for both the interpretation of the data and the conclusions as presented (paraphrased from Patton-Mallory and others, 2000, see #5 below).
- 4) Participation in the actual work, such as plot establishment or data collection, does not earn authorship when the individual is following a set of protocols established by another individual.
- 5) The order of authorship should be determined by the relative degree of contribution from each individual to each individual paper. Normally, the senior author will draft the manuscript and assign co-authorship based on those contributions. Agreement on the tentative order of authorship before the manuscript is drafted is required, with a caveat that authors can be replaced or changed. We recognize that order of authors may change, even after initial submission, if the relative responsibilities and contributions change sufficiently to justify reordering of authorship.

Example Reference: Patton-Mallory, Marcia; Franzreb, Kathleen; Carll, Charles; Cline, Richard. 2000. Ethical conduct for research: a code of scientific ethics. *Journal of Forestry*. July:32-33.

This document was co-authored by Scott Stephens and Maggi Kelly
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