

## Action Item Notes

### Effectiveness Monitoring Committee Meeting

April 20, 2017

#### CAL FIRE Regional Office Redding

**Participants (19):** Dr. Russ Henly (Co-Chair), Dr. Kevin Boston, Dr. Stacy Drury, Tom Engstrom, Sal Chinnici, Bill Condon, Clarence Hostler, Drew Coe, Bill Short, Matt Dias, Stacy Stanish, Mandy Culpepper, Steve Baumgartner, David Fowler, George Gentry, Will Olsen, Connor Pompa, Justin LaNier, and Pete Cafferata.

**Webinar participants (5):** Richard Gienger, Mike Fuller, Dr. Matt O'Connor, Dave Longstreth, and John Anderson.

#### 1. Report by the Co-Chair

- Russ Henly reported on the following topics:
  - The draft California Forest Carbon Plan was released on January 20<sup>th</sup>, with the public comment period closing March 17<sup>th</sup>. The goal is have it finalized by the end of June. <http://www.fire.ca.gov/fcat/downloads/California%20Forest%20Carbon%20Plan%20Draft%20for%20Public%20Review%20Jan17.pdf>
  - AB 1492 updates: (1) TRFR fund budget—Senate and Assembly Budget Subcommittees have approved funding for CALTREES, pilot project work, Water Board grants for 2 years and CAL FIRE CFIP grants for 1 year, CAL FIRE seedling production at the LA Moran Reforestation Center in 2018, and a SES position at the CNRA; (2) a new version of the Ecological Performance Measures Working Group draft white paper from UC Cooperative Extension was received on April 17<sup>th</sup>; (3) the Campbell Creek Pilot Project Scope of Work Working Group has provided guidance to the PPIIT on how to develop the scope of work, including using a three-phased approach for a small sub-watershed in the Campbell Creek planning watershed (rapid assessment, THP review, and modeling), and (4) the LiDAR contract flight covering 1200 mi<sup>2</sup> in Mendocino County was completed in April and the data will be processed by the end of the calendar year.

#### 2. Update on EMC Membership

- Co-Chair Henly stated that BOF Chair Keith Gilliss is waiting to see who the new BOF member will be before filling the vacant EMC co-chair position.
- Other vacancies include the CVRWQCB and SWRCB positions, as well as the university affiliation membership position.
- **Co-Chair Henly informed the group that the EMC term for Members Boston, Kelly, House, and Chinnici's positions expire July 1, 2017. He encouraged current members to remain on the EMC**

for a second term. Members with expiring terms are to send an email message to Matt Dias and Russ Henly by mid-May informing them of their decision (prior to the June BOF meeting).

### **3. Updates on Contracting Processes for Projects Approved for Funding**

- **EMC-2015-001 (Class II-Large Monitoring):** Drew Coe reported that the CAL FIRE contract with Oregon State University is about to be sent by the CAL FIRE Business Services Office (BSO) to OSU for signing. Following signing by CAL FIRE Deputy Director Eng, it will be sent to the Department of General Services-Office of Legal Services for approval. Final approval is expected before mid-May.
- **EMC-2015-002 (FORPRIEM ver. 2.0.) and EMC-2015-004 (Effectiveness of Road Rules in Reducing Hydrologic Connectivity and Significant Sediment Discharge)—Statistical Consultation:** Pete Cafferata and Drew Coe stated that the draft contract with the US Forest Service Pacific Northwest Research Station (PNW) was sent to the CAL FIRE BSO on April 19<sup>th</sup>. Principal Investigators are Dr. Ashley Steel and Pat Cunningham. The scope of work and budget (\$55,834.86) have been agreed to by both CAL FIRE and the PNW.
- **Statistician on Retainer:** Bill Condon suggested that it would benefit the EMC to have a statistician available as needed with an open contract. Bill Short stated that this is possible with a multiple year contract, and Drew Coe informed the group that this process worked well for CMER in Washington. **Stacy Drury stated he will speak to the PSW's newly hired statistician, Dr. Nels Johnson, about possibility filling this role for the EMC. CAL FIRE staff were directed to work with Bill Short on developing appropriate language to use for a potential EMC contract.**
- **Review on EMC funding status:** Russ Henly listed the current funding allocations from the \$425,000 TRFR funds for fiscal year 2016/2017:
  - Class II-Large: \$221,271
  - Statistical Review for FORPRIEM2 and Road Rules: \$55,835
  - Total committed: \$277,106
  - Total remaining: \$147,894

### **4. Review of Submitted EMC Projects**

#### **EMC-2017-001 (Effects of Forest Stand Density Reduction on Nutrient Cycling and Nutrient Transport at the Caspar Creek Experimental Watersheds):**

- Pete Cafferata summarized the EMC-2017-001 detailed project description he produced, largely based on the research grant proposal application written by Dr. Helen Dahlke and Dr. Randy Dahlgren, UC Davis, and submitted to the Save the Redwoods League in 2016. The \$24,939 grant was awarded in December 2016.
- The Caspar Creek nutrient study is one of 10 sub-studies under the umbrella of the Third Experiment at the Caspar Creek Experimental Watersheds, and the only one that is yet to be fully funded. The nutrient cycling study would complement several of the sub-studies.
- THP 1-16-124 MEN for the South Fork of Caspar Creek study area is nearing approval; see: <ftp://thp.fire.ca.gov/THPLibrary/North Coast Region/THPs/THPs2016/1-16-124MEN/>

- Pre-project water samples are currently being collected from 4 sub-watersheds in the South Fork and analyzed at UC Davis. Funding is required from the EMC to complement other funding sources.
- EMC funding of \$92,252 is requested for 2017, 2018, and 2019, with CAL FIRE providing an additional \$100,000.
- EMC members offered several suggestions to improve the study, including:
  - Conduct a post-harvest survey for the South Fork sub-watersheds included in the study to document the amount of soil disturbance.
  - Conduct a post-harvest survey for the South Fork sub-watersheds included in the study to document the amount of organic debris and sediment delivered to each of the channels.
  - Produce a stratification of the yarding methods used in the South Fork sub-watersheds included in the study to further quantify the amount of disturbance in basin.
  - Document the soil types present in the South Fork sub-watersheds included in the study using NRCS web soil survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) SSURGO data; determine if significant background differences exist (e.g., soil chemistry) that could influence nutrient and sediment input to stream channels.

**EMC-2017-002 (Using Automated Bird Recorders to Determine Differences in Bird Occupancy of Four Habitat Types in a Post Fire Setting):**

- Stacy Stanish summarized the project proposal she submitted to the EMC on March 27<sup>th</sup>. This project builds on existing research being conducted on Boggs Mountain Demonstration State Forest following the 2015 Valley Fire, and complements work being conducted by DFW as part of their Eco-Regional Biodiversity Monitoring Project.
- The study will collect baseline bird occurrence and diversity for stands subjected to different disturbance and/or management treatments following wildfire, with the goal of determining if significant differences exist between treatments. Three replicates in four different stand types will be used:
  - Areas unburned by the 2015 Valley Fire.
  - High severity burned areas, but not salvage logged.
  - High severity burned areas that are salvage logged, but not planted or herbicide sprayed.
  - High severity burned areas that are salvage logged, ripped, planted, and sprayed.
- The study will utilize plots established by CAL FIRE-FRAP for evaluating tree mortality, post-fire regeneration, and fuel and carbon dynamics. Plots are approximately 3-5 acres in size.
- This study will test the effectiveness of FPR 1052, Emergency Notice requirements (e.g., following FPR operational rule regulations), and more specifically FPR 919, Wildlife Protection Practices.
- CAL FIRE's Demonstration State Forest Program is currently purchasing 12 bird recorders for the study, with deployment planned for May or June of 2017 (~\$10,000). EMC assistance is requested to fund contractor bird call interpretation for 3 years (~\$5,000) and for analysis software (~\$1,500).
- Less intense field sampling may occur at 5 years, 10 years, and longer timespans, but is not part of this study.

- The EMC determined that due to the study timeline, low funding request, and the timeline for EMC fund encumbrance, a more detailed project description is not required.

**UC Merced Project Proposal—Critical Baseline Monitoring of Water Quality for the Hemlock Forest Restoration Project**

- This project seeks funding for sediment and water temperature baseline monitoring to evaluate channel response from forest management prescriptions utilizing guidelines in PSW GTR-220. The proposed study area is the 12,000 acre Hemlock Project in the Stanislaus National Forest.
- Dr. Martha Conklin, UC Merced, is the lead PI.
- EMC members stated that this proposal does not relate well to the EMC Strategic Plan and its critical questions, since it does not test specific FPRs or other state regulations. It generally relates to cumulative impact assessment in mixed ownership watersheds, but lacks linkages to specific forest practice rules.
- **Russ Henly stated that he would contact Dr. Conklin and explain the EMC’s concerns, and determine if she thinks the project can be modified to better test state regulations.**

**5. Ranking and Funding of Submitted EMC Projects**

- The EMC determined that 2 projects were ready for ranking: **EMC-2017-001** (Effects of Forest Stand Density Reduction on Nutrient Cycling and Nutrient Transport at the Caspar Creek Experimental Watersheds, and **EMC-2017-002** (Using Automated Bird Recorders to Determine Differences in Bird Occupancy of Four Habitat Types in a Post Fire Setting).
- Members ranked these two projects as follows:

Project	Critical Question	Scientific Uncertainty	Geographic Application	Collaboration and Feasibility	Overall Ranking
EMC-2017-001	3.3	6.1	3.7	4.2	17.3
EMC-2017-002	3.4	6.7	3.6	4.2	18.1

- Overall ranking was slightly lower than previously ranked EMC projects.

**6. Funding Recommendations to the Board of Forestry and Fire Protection**

- Member Chinnici moved to recommend funding for EMC-2017-002 for the requested amount (\$6,500), which was seconded by Member Condon.

Roll call:

Boston	Aye
Chinnici	Aye
Coe	Aye
Condon	Aye
Drury	Aye
Engstrom	Aye
Henly	Aye
Hostler	Aye
Short	Aye

**Motion carries unanimously.**

- Member Coe moved to recommend funding for EMC-2017-001 for the requested amount (\$92,252), which was seconded by Member Boston.
- Co-Chair Henly suggested that the motion be amended to fund the project if the following questions are adequately addressed by the next EMC meeting (May 31<sup>st</sup>):
  - Conduct a post-harvest survey for the South Fork sub-watersheds included in the study to document the amount of soil disturbance.
  - Conduct a post-harvest survey for the South Fork sub-watersheds included in the study to document the amount of organic debris and sediment delivered to each of the channels.
  - Produce a stratification of the yarding methods used in the South Fork sub-watersheds included in the study to further quantify the amount of disturbance in basin.
  - Document the soil types present in the South Fork sub-watersheds included in the study using NRCS web soil survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) SSURGO data; determine if significant background differences exist (e.g., soil chemistry) that could influence nutrient and sediment input to stream channels.
- The EMC concurred with this suggestion and the motion was revised.

Roll call:

Boston	Aye
Chinnici	Aye
Coe	Aye
Condon	Aye
Drury	Aye
Engstrom	Aye
Henly	Aye
Hostler	Aye
Short	Aye

**Motion carries unanimously.**

## **6. Discussion on EMC-2016-003, Effectiveness of the Forest Practice Rules for Unstable Areas**

- Member Coe reported on Mass Wasting Subcommittee work for this project, being led by Member O'Connor. Subcommittee staff assistance has been provided by Dave Longstreth, Dave Fowler, Mike Fuller, and Ronna Bowers. Additionally, Pete Cafferata provided agency reports and papers relevant to this project on a CAL FIRE ftp site.
- The subcommittee had two conference calls in April to discuss development of a pilot study in the Caspar Creek watershed, evaluating LiDAR as a landslide detection tool.
- The initial proposal is to compare and contrast 2004 LiDAR and 2017 LiDAR landslide geomorphology within the South Fork and North Fork Caspar Creek watersheds, identifying landslides that occurred in between the two sets of LiDAR.
- This work is building off of Dave Longsteth's South Fork Caspar Creek Landslide Study, part of the 10 sub-studies included in the Third Experiment.
- EMC members commented that it is critical to be able to identify both false positives and false negatives for landslide feature identification.
- No EMC funding request has been identified at this time.

## **7. Public Forum** – None

## **8. Discussion of Location and Future Meeting Dates**

- The next meeting will be held on May 31<sup>st</sup> (location TBD).
- Connor Pompa will send out a Doodle poll for the next three meetings to be held in July, August, and September.
- Member Chinnici suggested having a summer field meeting, possibly at the Caspar Creek watershed. EMC response was positive.

## **9. Announcements**

- Bill Short announced that CGS's Jeremy Lancaster will present along with Jason Kean, USGS, at the International Association of Wildfire Conference "All Hands, All Lands: Implementation Rooted in Science," April 25-27, 2017 at Reno. Their talk is titled "Rapid Identification of Post-Wildfire Hazards and Risks." <http://www.iawfonline.org/CohesiveStrategyWorkshop/>
- Bill Short announced the CGS's Don Lindsay and Gordon Keller, USFS (retired), will provide a webinar presentation titled "Low-Volume Roads: Surface Drainage and Drainage Crossing Structures" for the American Society of Civil Engineers (ASCE); see: [http://mylearning.asce.org/diweb/catalog/item/eid/221478816?\\_ga=1.145384822.374731643.1492909013](http://mylearning.asce.org/diweb/catalog/item/eid/221478816?_ga=1.145384822.374731643.1492909013)
- Stacy Stanish is coordinating the CLFA fall workshop on water topics that is scheduled for September 8, 2017 in Chico.
- Drew Coe will present on the Boggs Mountain Demonstration State Forest Post-Fire Runoff and Erosion Study at the Forest Vegetation Management Conference in January 2018.