



## Tree Mortality Task Force Forest Health and Resilience Working Group Minutes

November 2, 2016

CAL FIRE FRAP Office, 1300 U Street, Sacramento, CA

- I. FHRWG Member Roll Call: Stewart McMorrow (CAL FIRE), Chris Keithley (CAL FIRE-FRAP), Larry Camp (FLOC), Susie Kocher (UCCE), Paul Mason (PFT), Rich Wade (BOF), Margarita Gordus (DFW), John Amodio (YSS), Sherry Hazelhurst (USFS), Brian Nowicki (CBD), and Pete Cafferata (CAL FIRE).  
FHRWG Participants: Heather Williams (CAL FIRE), Mark Rosenberg (CAL FIRE-FRAP), Emily Meriam (CAL FIRE-FRAP), James Savage (BLM), Chris Fischer (USFS), Kayanna Warren (USFS), Tadashi Moody (CAL FIRE-FRAP), and Laurie Litman (InfoWright).
- II. Approval of October 2016 Meeting Minutes: After minor edits were made, all concurred to approve the October meeting minutes.
- III. Update on USFS Forest Health Monitoring: Sherry Hazelhurst stated that the USFS has several ongoing forest health monitoring efforts, and that they are determining where there are information gaps. The Forest Service hopes to have new data published by spring 2017. Forest Inventory and Analysis (FIA) plot data are capturing some information on tree mortality (~10% of the California plots are located in the high hazard counties). Chris Fischer added that the USFS is monitoring wildfire effects in the high mortality areas, and that a new tree mortality aerial survey was completed in August/September 2016. **Data from the flight is expected to be released in May 2017; increased mortality has been observed across the state.**
- IV. Update on Dr. Asner's Contract for a Second Conifer Moisture Stress Flight and USFS/JPL Flight: Chris Keithley informed the FHRWG that CAL FIRE has a contract agreement in place with Dr. Greg Asner, Stanford University, and that the moisture stress flight was completed earlier this year. **Dr. Asner will be invited to present information on this project with a webinar for the FHRWG meeting scheduled for December 7<sup>th</sup>.** The contact agreement will make the datasets available to the TMTF. Unfortunately, the agreement to include a tree mortality component for the USFS/JPL flight in the upper San Joaquin River basin was not able to be executed.

Kelly Larvie, CAL FIRE-FRAP, produced a handout describing the purpose and tasks for a new FHRWG/Mapping and Monitoring Working Group (MMWG) sub-working group to address emerging remote sensing technologies for assessing and monitoring forest health. Larry Camp and Susie Kocher are the FHRWG representatives; Kelly Larvie, Mark Rosenberg, and Liz VanWagtendonk (SNC) are the MMWG representatives. The goal is to use LiDAR and hyperspectral (HS) imaging to determine dead tree heights and assess potential impacts to nearby assets-at-risk from tree fall.

**Tadashi Moody volunteered to contact Dr. Scott Stephens (UC Berkeley) and other fire scientists regarding existing fire models that can use LiDAR and HS tree mortality data to identify high risk rural communities. Brian Nowicki offered to chair a new sub-working group to address gaps that exist with current fire models in high mortality areas for predicting risk**



**to communities. He stated that these models are not reflecting reality in areas with high rates of tree mortality, and that he will supply a list of literature citations for distribution to the FHRWG. Volunteers for this new sub-working group should contact Mr. Nowicki.**

- V. GIS Data to Summarize Number of Acres in Forest Type/Seed Zone/Elevation Bands: Emily Meriam explained how the TMTF MMWG is assisting the FHRWG by overlaying GIS data for tree seed zones, 500-foot elevation bands, and forest type vegetation maps. This effort will summarize the number of acres in each forest type/tree seed zone/elevation band combination for the 10 high hazard counties. Seed zones will be defined using current climate data. **A table and map will be produced summarizing these data, with the goal to complete the project by the first week of December.** Stew McMorrow stated that this product will be a good tool for helping prioritize seed collection for both the USFS and CAL FIRE. Susie Kocher added that a new Seedlot Selection Tool (SST) is available online (<https://seedlotselectiontool.org/sst/>). It is a GIS mapping program designed to help forest managers match seedlots with planting sites based on current or future climatic information.
- VI. Status of the FHRWG Document “Achieving Long-Term Forest Health in California”: Pete Cafferata stated that Helge Eng, CAL FIRE Deputy Director for Resource Management, made edits to the document in October, which he incorporated. Gabe Schultz asked that the document go through the “green sheet” approval process for CAL FIRE senior staff (including the Director); it is currently in review. **John Amodio asked if all FHRWG products would have to go through this CAL FIRE approval process. Gabe Schultz, after the meeting, responded that not all products will require internal CAL FIRE review; only those with concepts that bridge TMTF policy or provide a position that would represent the Governor’s office will require “green sheet” approval.**
- VII. Status and Discussion of the Draft “Sierra Forest Health Report”: John Amodio and Larry Camp provided a summary of their draft Sierra Forest Health Report white paper. An updated version was distributed to the FHRWG on October 24<sup>th</sup> that incorporates comments received through October 22<sup>nd</sup>, including those from Jim Branham (SNC) and Craig Thomas (SFL). **Comments on the new draft are due by November 23<sup>rd</sup> and should be sent directly to Mr. Amodio and Mr. Camp (or to Pete Cafferata, who will forward them to the authors). Once a final draft is produced, a 1-2 page executive summary will be produced, as well as an appendix with key references, definitions, a brief overview of the inclusive process that developed the SNC Watershed Improvement Program (WIP), and key supporting data (e.g., plots displaying drought mortality data from 2011 to 2016).**

Rich Wade, Board member, stated that he asked the Board of Forestry and Fire Protection (BOF) to consider this document and provide initial feedback. At the BOF’s meeting on November 2<sup>nd</sup>, Mr. Wade and Mr. Camp summarized the white paper’s goals. BOF members stated that for item “E” (provide legislative and administrative reforms...), the authors should provide supplementary language. Regarding item “G” (develop a regulatory framework to reduce burdensome cost...), Board members stated that they are already considering this issue, but discussion could be expanded (including “outside the box” solutions, such as performance-based standards). Mr. Wade will continue to be the BOF’s liaison with the TMTF, and he will determine when the document should be brought back to the Board for further review.



VIII. Continued Discussion on FHRWG Reforestation Objective: Stewart McMorrow led a discussion on reforestation strategies he and Susie Kocher developed for the FHRWG (a one page handout summarized these concepts was provided). Mr. McMorrow stated that High Speed Rail Authority funding of \$2.4 million will be available for CAL FIRE's CFIP, with the goal of planting 360,000 to 400,000 seedlings. Past inquires and observations have indicated that only shade tolerant species, such as incense cedar and white fir, are left in the understory of high mortality areas. Since dead tree removal typically destroys 75% of this existing regeneration, some amount of pine inter-planting appears merited in these areas. The goal is to strongly encourage landowners to replant conifer seedlings.

Mark Rosenberg suggested (1) obtaining FIA plot data for statistically valid regeneration information, and (2) utilizing other types of outreach methods, such as enlisting the help of the American Forest Association and Mr. Tom Fry. He can provide assistance with outreach to small nonindustrial landowners. Heather Williams and Sherry Hazelhurst expressed an interest in participating in this effort.

Mr. McMorrow briefly described additional "brainstorming" reforestation strategies, including:

- The next issue of Forestland Steward will focus on replanting pines in high mortality zones; Susie Kocher will work with Laurie Litman on this issue.
- CAL FIRE Communications staff will create materials for social media and websites regarding tree replanting.
- The Forest Stewardship Helpline (1-800-738-TREE), staffed by Richard Harris, will encourage tree planting.
- Forest nurseries (Eldorado RCD and CAL FOREST) will ask people who put in sowing orders if they are involved with CFIP; Stewart McMorrow's contact information will be provided.
- UC Extension (in combination with RCDs) will help organize workshops on this topic in the high impact counties.
- Rollout of the revised California reforestation manual should occur in summer 2017.
- Establish a sowing order based on data to be collected this fall that helps to inform the percentages of seeds to sow from each of the affected seed zones. Order will be 150,000 seedlings (ponderosa pine, sugar pine, incense cedar, giant sequoia, and Douglas-fir), available in fall 2017/winter 2018.
- CAL FIRE FAS (Forestry Assistance Specialist) staff will focus more effort on encouraging landowners to add tree planting to their CFIP contracts.

IX. New Business—Status on Updating High Hazard Zones: Mark Rosenberg stated that the newly released Tier II zone data, as well as recent Tier I data, are posted on the TMTF website: <http://www.fire.ca.gov/treetaskforce/>. This information is based on aerial detection flights, public utilities information, and local knowledge.

X. Next FHRWG Meeting: The next meeting will be held on December 7<sup>th</sup> at 2:00 p.m. at the CAL FIRE FRAP office.