

Tree Mortality Task Force

Forest Health and Resilience Working Group (FHRWG)

Monthly Meeting Notes – October 5, 2016

Member Roll Call: Stewart McMorrow (CAL FIRE), Chris Keithley (CAL FIRE-FRAP), Tom Smith (CAL FIRE), Larry Camp (FLOC), Chuck Henderson (AFF), Susie Kocher (UCCE), Staci Heaton (RCRC), Paul Mason (PFT), Rich Wade (BOF), Lisa Thornley (BLM), Margarita Gordus (DFW), and Pete Cafferata (CAL FIRE).

Guests: Jodi Axelson (UCCE), Kelly Larvie (CAL FIRE-FRAP), Rick Standiford (UC Berkeley), Heather Williams (CAL FIRE), Mark Rosenberg (CAL FIRE-FRAP), Eric Huff (CAL FIRE), Elizabeth Merioli (Sagent Marketing), Sara Ortega (Sagent Marketing), Emily Meriam (CAL FIRE), and James Savage (BLM).

Approval of September 2016 Meeting Minutes

After minor edits were made, all concurred to approve the September meeting minutes.

Updates on Aerial Flights Related to Tree Mortality

Chris Keithley had no new information on the contract with Dr. Greg Asner, Stanford University, to conduct a second aerial flight detecting tree moisture stress in the Sierra Nevada. **Dr. Keithley will obtain a map of the footprint to be evaluated.**

Kelly Larvie updated the group on the JPL/NASA flight in the upper San Joaquin River basin above the 3000 feet elevation for both LiDAR and hyperspectral imaging. It is anticipated that this flight will occur in early 2017; it will yield information on moisture stress, numbers and locations of dead trees, and locations of critical infrastructure. **Larry Camp and Susie Kocher volunteered to join a small sub-group composed of FHRWG and Mapping and Monitoring Working Group members, with the goal of coordinating data collection efforts and identifying useful products that can be derived from this flight.**

Update on the FHRWG document titled “Achieving Long-Term Forest Health and Resilience in California.”

Tom Smith reviewed past efforts on the FHRWG document titled “Achieving Long-Term Forest Health and Resilience in California”, including incorporating edits he had received from Brian Nowicki, CBD. Mr. Nowicki stated at the last FHRWG meeting that the earlier edits Dr. Smith incorporated in the document did not adequately address his concerns. Gabe Schultz, TMTF Co-Leader, and Dr. Smith reviewed these comments and produced a new version of the document after the September meeting. Currently CAL FIRE Deputy Director Helge Eng is reviewing the paper for consistency with other documents, including the California Forest Carbon Plan. Suggestions for improvement at this meeting included (1) describing that the paper is a broad guidance document (not a substitute for an RPF), (2) correcting the percentage of private forest ownership in California, and (3) adding past management actions as a forest stressor.

Discussion on the Draft Sierra Nevada Health Treatments and Options Document

At the September FHRWG meeting, John Amodio and Larry Camp summarized their draft document titled “Sierra Forest Health Report.” This white paper stresses the critical need for creating a comprehensive forest restoration program in the Sierra Nevada to improve forest health conditions (i.e., a Sierra Ecological Restoration Program that integrates existing programs). The goal is to have all landowners, including small nonindustrial owners, to invest in forestry to improve forest health and resiliency in this region. The draft white paper remains incomplete; sections on adaptive management and monitoring remain to be written.

For a realistic time frame, the FHRWG decided request a completed draft by October 21st, so that discussion can occur at the November meeting. Comments on the current draft can be submitted at any time to Mr. Amodio and Mr. Camp. They will attempt to contact Jim Branham at the Sierra Nevada Conservancy for input on the document.

Discussion on Developing a Strategy for Reforestation

Stewart McMorrow, CAL FIRE, led a discussion on the FHRWG IAP objective: “*Develop a strategy to reforest areas deforested by bark beetles. Investigate which species and genotypes should be replanted considering elevation zones and seed zones, areas with high rates of mortality, and other considerations (e.g., climate change) in the high hazard counties.*” Mr. McMorrow suggested that it may be appropriate to determine:

- What species are already regenerating?
- What species do we want to promote for planting?
- What scale do we want/need to plant?
- Where do we want to plant? (seed zone/elevation band)
- When do we want to have seedlings available?
- How will we distribute them?

A reforestation effort could potentially be dovetailed into other programs (e.g., High Speed Rail, CFIP, GHG, etc.). Most importantly, however, Mr. McMorrow stated that we need to know what species are already regenerating, and if there is an actual need for reforestation. Preliminary observations indicate that incense cedar and black oak will remain following pine removal in significant numbers, but formal studies are required to obtain good information on this question. Jodi Axelson stated that a UCCE field study addressing this topic will begin next spring. Susie Kocher added that she is exploring the question of “Where do we want to plant?” She has spoken to Tom Blush, USFS Region 5 Regional Geneticist, and Jessica Wright, USFS PSW Conservation Geneticist, regarding provenance trials in the Tahoe Basin. Combining data from provenance studies with predicted climate change can help inform reforestation efforts (see Dr. Wright’s chapter 3.1 in the USFS PSW’s *Science Synthesis to Support Socioecological Resilience in the Sierra Nevada and Southern Cascade Range*, Gen. Tech. Rep. PSW-GTR-247 (http://www.fs.fed.us/psw/publications/documents/psw_gtr247/)). Additionally, she has spoken with (1) Dr. Mark Schwartz, UC Davis, regarding a beta version of a seed source selection tool he has developed that uses climate modeling to determine appropriate seed sources, and (2) Dr. Hugh Safford, USFS PSW, regarding Sierra Nevada reforestation needs. Dr. Safford has stated that there may be minimal need to replant.

Rick Standiford stated that other sources of information to address this question will be the nearly completed updated version of the California reforestation guidebook, and an existing series of videos UCCE has produced on forestry topics (e.g., “Developing a Reforestation Plan” at <https://www.youtube.com/watch?v=N7W5jkjngc0>, and “Forest Health and Management: Drought and Infestation” at: https://youtu.be/sRcnk_MZj5g). It was also suggested that it may be possible to query Forest Inventory and Analysis (FIA) data for regeneration information. Mark Rosenberg is CAL FIRE’s Western States representative to the FIA management team and can work on this approach for obtaining regeneration information. **Susie Kocher and Stew McMorrow volunteered to work on obtaining pertinent regeneration information to better inform the FHRWG how to move forward with this objective.**

UC Cooperative Extension Planning for Sierra Nevada Tree Mortality Response

Rick Standiford, Susie Kocher, and Jodi Axelson provided additional information regarding how UC Cooperative Extension can assist the FHRWG with public outreach regarding forest health and resilience. Approaches include:

- A set of 13 videos that are currently available online dealing with forest management issues for landowners (e.g., drought and infestation, reforestation, wildfire, cost share plans, etc. (http://ucanr.edu/sites/forestryonline/Forest_Landowner_Videos_Available/))
- A proposed webinar series addressing different management opportunities/solutions for landowners (Jodi Axelson lead).
- An extension package developed to address when and where reforestation is needed in the high hazard counties (Susie Kocher lead).
- A possible cell phone application providing landowners with a decision system to make informed decisions related to forest health (tree identification, etc.).

Funding is required for the extension package and cell phone application. Possible funding sources discussed included National Institute of Food and Agriculture grants and the Western States competitive grant process (Council of Western State Foresters).

Dr. Standiford, Ms. Kocher, and Dr. Axelson requested that FHRWG members and participants email them additional ideas for public outreach regarding forest health and resilience issues.

TMTF Public Outreach Working Group (POWG) Forest Health Outreach Campaign

Heather Williams, CAL FIRE, discussed the POWG tree health and urban resident public outreach campaign, being assisted by the private firm Sagent Marketing. They would like FHRWG assistance on what to tell urban residents is needed for healthy forests (i.e., trees, soil, air, and water). The goal is to simply explain how forest health impacts their water and air quality. They need ideas to take back to the POWG.

Ms. Williams explained how there are many types of messages to convey, such as (1) cutting trees to thin overly dense forest stands is beneficial, (2) prescribed fire is a good forestry tool to improve forest health, and (3) healthy forests must be managed by humans. If successful, this type of campaign could affect state legislators’ thinking and their sponsored bills.

Ms. Williams requested that FHRWG members and participants email her suggestions on how the POWG can successfully convey these types of messages to urban residents (Heather.Williams@fire.ca.gov). Social media tools such as Facebook, Twitter, etc. are available.

Examples of similar successful campaigns were discussed, such as the multi-agency “One Less Spark Campaign” (<http://www.preventwildfireca.org/OneLessSpark/>), USFS Forests to Faucets project (http://www.fs.fed.us/ecosystemservices/FS_Efforts/forests2faucets.shtml), and Denver’s advertising campaign that led to passage of a tax for the Colorado Forest Restoration Program (http://csfs.colostate.edu/media/sites/22/2015/03/Request_for_Application_2015_ForestRestorationGrant_ApplicationInstructionsMar3-2015.pdf). Possible approaches to assist in this endeavor include the American Forest Foundation’s Project Learning Tree (PLT) (<https://www.forestfoundation.org/>), and state and federal urban forestry programs.

Next FHRWG Meeting Date

The next FHRWG meeting will be held on **November 2nd, 2:00 p.m. to 3:30 p.m.**, following the TMTF Mapping and Monitoring Working Group meeting.