



Tree Mortality Task Force Monthly Update March 2018

HIGHLIGHTS

- Tier 1 and Tier 2 High Hazard Zones have been updated on the [Tree Mortality Viewer](#). These zones were identified using the Aerial Detection Survey data 2012-2017. The ADS data layers are also available in a [zipped geodatabase](#) and as pdf maps posted on the TMTF website: <http://www.fire.ca.gov/treetaskforce/reports>.
- On March 12 at the US Forest Service (USFS) Wildfire Training Center, UC Berkeley, UC ANR, and USFS researchers recapped the 2017 field season, sharing data on live and dead trees, bark beetle attacks, regeneration, and fuels. Also discussed was useful data summary products, and on-going collaboration on field data collection, interpretation and use. All the presentations from the workshop, a summary of the data from the network's plots, and a summary of the discussion we held on information needs are posted on the project web page: <http://ucanr.edu/treemortalitynetwork>.
- The table below depicts the number of trees removed through February 28, 2018.

<u>Area/Unit/County/Agency</u>	<u>Date</u>	<u>Trees Removed</u>
USFS	Feb-2018	548,447
CAL FIRE	Feb-2018	43,058
Caltrans	Feb-2018	111,233
Priority Counties	Feb-2018	29,104
PG&E	Feb-2018	390,991
SCE	Feb-2018	104,500
Total		1,227,333

UPCOMING MEETINGS and WORKSHOPS

- The next Task Force meeting will be held on Monday, April 9 from 1:00-3:00 P.M. A meeting announcement and agenda will be posted no later than Friday, April 6 on the TMTF website.
- The Sierra Institute for Community and Environment and the US Forest Service Pacific Southwest Region are hosting a two-day meeting, May 7-8 in Sacramento to further triple-bottom line (community, economy, environment) approaches to forest restoration. The [Sierra to California All-Lands Enhancement \(SCALE\)](#) network offers an opportunity for collaboratives and the Forest Service to collectively identify strategies to achieve landscape-scale, cross-boundary restoration of healthy, resilient forests.



WORKING GROUP REPORTS

Forest Health and Resilience

(Pete Cafferata/ Stewart McMorrow)

- [One Tree Planted](#), the non-profit that paid for CAL FIRE's last speculative sowing order, has offered to continue to fund reforestation efforts throughout California. Interested parties should work through FHRWG Chair [Stewart McMorrow](#).
- The third FHRWG white paper titled "Synthesis of Relevant Studies Exploring the Long-Term Outlook for Sierra Nevada Forests following the Current Bark Beetle Epidemic" has been updated to include [summary information from the March 12, 2018 Sierra Nevada Tree Mortality 2017 Field Season Results Workshop](#) held at the McClellan Wildland Fire Training Center. CAL FIRE-FRAP staff will continue to conduct modeling work for determining areas most likely to experience type conversions from mixed conifer to shrub lands prior to the next meeting. GIS layers for this analysis include fire threat, vegetation types modeled with climate change projections, and topographic position index (TPI) metrics.
- A revised draft CAL FIRE reforestation strategy has been developed following a conference call held on February 26 with a small sub-committee of the FHRWG. A list of ongoing or planned strategic efforts, focused on nonindustrial forestlands in California, has been developed. Strategic efforts for reforestation include reopening the LA Moran Reforestation Center nursery, establishing yearly speculative sowing orders and making seedlings available to impacted areas, increasing cone and seed collection efforts in mortality-affected seed zones, and creating a Reforestation Guide that stresses and encourages reforestation needs on private lands.
- Priority actions for the Seed Zone Map Update Group, a subcommittee of the FHRWG, include (1) standardizing data that seed banks collect for both the USFS and CAL FIRE, and (2) funding a research project with Dr. Jessica Wright, USFS PSW develop species-specific climate-based seed transfer guidelines. The CAL FIRE contract under development with the PSW will inform strategic planning and decisions with regard to updating the seed zone framework for the collection, curation, propagation, and planting of tree species in California.
- The Sierra Nevada Science Coordination Group, a FHRWG sub-working group, continues to collect data with its online geodatabase developed to document research and monitoring efforts being undertaken in the Sierra Nevada related to tree mortality. The goal of this effort is to catalog all current research efforts in order to identify knowledge gaps and future research needs. To date, 21 researchers have provided data for 102 polygons. To improve the response, a second email message was sent to 64 researchers on March 5 linking to a brief video demonstrating the ease of the online tool and a short online survey to gauge researcher interest.
- At the March Working Group meeting, California Natural Resources Agency's Dr. Russ Henly, discussed the concept of using the FHRWG to address the goals stated in the 2017 Climate Change Scoping Plan and the California Forest Carbon Plan. At our April meeting, we will address the concept of using the Working Group to further the use of prescribed fire for smaller landowners.



Regulations

(Matthew Reischman/ Jamie Sammut)

- On March 20, Regulations Working Group Chair Matthew Reischman, testified at an informational hearing before the [Joint Legislative Committee on Emergency Management](#) and Senate Insurance Committee. A background paper on "[Drought, Climate Change and Fire: How is the California Homeowners' Insurance Market Responding?](#)" supported the agenda. Other speakers included California Department of Insurance Commissioner Dave Jones; Staci Heaton from RCRC; Kara Cross, representing Personal Insurance Federation of California, and others.
- The Regulations Working Group is continuing to work toward the long-term permitting of air curtain incinerators.

Mapping and Monitoring

(Mark Rosenberg/ Kayanna Warren)

- FRAP completed the HHZ Tier 1 and HHZ Tier 2 data and maps using the Aerial Detection Survey results from November 2017. The data layers have been added to the [Tree Mortality Viewer](#) and Mortality Project Mapper and are available in a [zipped geodatabase](#) and as pdf maps posted on the TMTF website: <http://www.fire.ca.gov/treetaskforce/reports..>
- MMWG continues to receive monthly updates to the Mortality Project Mapper (MPM). The MPM incorporates project data from multiple agencies in a secure web map application used to capture project data by cooperating agencies.
- MMWG members and CAL-FRAP staff, Kelly Larvie and Tadashi Moody are supporting the Forest Health and Resilience Working Group's third white paper addressing the long-term outlook for Sierra Nevada forests. They are modeling areas most likely to experience type conversions from mixed-conifer forest to shrub and oak/grass/woodland types without active reforestation efforts.
- Kelly Larvie is also completing a request from Caltrans to analyze hazard trees along the state highway system.

Utilization – Bioenergy

(Angie Lottes)

- The Working Group will be inviting Carmen Tubbesing from UC Berkeley, to present on a [biomass quantification model](#) she developed using the Aerial Detection Survey information. The GIS tool she developed can calculate the biomass of trees that have died in recent drought/insect mortality within any user defined polygon in California.
- At the March 22 meeting of the California Public Utilities Commission (PUC), Commissioners passed [Resolution E-4922](#), ordering PG&E, SCE, and SDG&E to continue their BioMAT programs under current program rules. A number of Working Group members provided written comments prior to this meeting. The IOUs must now complete contract executions within 30 days of the Resolution and shall file a compliance filing with the executed contracts by filing Tier 1 Advice Letter(s) within 45 days of the Resolution.



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- The CPUC and PG&E sent out a Request for Interest to firms with the capabilities to complete High Hazard Zone Availability (HHZ) Study. The study is meant to reveal HHZ fuel availability as it pertains to BioRAM facilities and barriers to increasing availability.

Utilization – Market Development

(Evan Johnson/Bob Kingman)

- The Market Development Working Group received updates on the status of recent, and soon-to-be-released, contracts from Caltrans for the disposal of hazard trees from ROWs to be hauled to operating biomass energy facilities.
- Several members of the Working Group attended the International Mass Timber Conference, held March 20-22 and will report back on new developments, opportunities, and leads for supporting mass timber utilization or manufacturing in California.
- The Sierra Institute and partners are hosting a [ribbon-cutting ceremony](#) and site tour on April 6, to celebrate wood utilization and the completion of the new biomass heating facility and cross laminated timber building in Quincy. This biomass system, fueled by wood chips from local forest health projects, provides low-cost and sustainable heat to the county's Health and Human Services Center, and is housed within California's first full CLT building. The operation is a good example of how small-scale wood utilization will be able to continuously assist in the removal of small diameter, biomass from surrounding high fire hazard forests, while reducing energy costs to the county for heating.

Partner Updates

- The USFS has made the 2017 aerial survey results available for viewing through GoogleEarth and GoogleMaps and has posted an [Interim Report](#) that estimates number of dead of trees by county. The USFS's Aerial Survey Program also summarized highlights from the [2017 Aerial Detection Survey](#), a few pertinent results are:
 1. The bulk of new mortality was in white and California red fir which collectively accounted for 89% of the mortality and present on 88% of the acres mapped.
 2. California red fir was often considerably impacted even at the highest and most remote areas, especially in the southern Sierra Nevada range.
 3. White fir was heavily impacted in the south but also in northern areas closely correlated with overstocked stand conditions.
 4. Western pine beetle-related mortality, primarily in ponderosa pine, was drastically reduced from over 2.4 million acres in 2016 to about 330,000 acres in 2017.
 5. Mountain pine beetle activity was also markedly lower from 1.1 million acres to 113,000 acres. Similarly, Jeffrey pine beetle activity went down from 500,000 to 139,000 acres.)



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- The Sierra Nevada Conservancy (SNC) approved nearly [\\$3 million in grants](#) for projects that will reduce wildfire risk and restore forest and watershed health in the Sierra Nevada region. Funding for these projects comes from Proposition 1, The Water Quality, Supply, and Infrastructure Improvement Act of 2014. Funded projects include those in the tree mortality priority counties of Mariposa, Fresno, and El Dorado Counties.
 - PG&E has provided the California Fire Foundation (CFF) with \$1 million for a grant program that will help firefighters throughout the state prepare for and prevent climate change-driven disasters by providing funding for programs such as fire-retardant roof incentives, land-use planning, community education and grass clearing. The [California Fire Foundation](#), a non-profit 501c3 organization, aids firefighters, their families and the communities they protect. Fire prevention grant awards are anticipated to range from \$2,500 to \$15,000. The deadline for applications is June 15, 2018.