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GOVERNOR OF HAWAII



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**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
DIVISION OF FORESTRY AND WILDLIFE  
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February 12, 2013

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Ms. Trudie Mahoney  
USDA Forest Service  
1323 Club Drive  
Vallejo, CA 94592

Dear Ms. Mahoney:

**SUBJECT: Final Report re: Grant No. 11-DG-11052012-031**

Enclosed please find the final report for the subject matter grant. Should you have any questions, please feel free to contact Wayne Ching of my staff at (808) 587-4173.

Very truly yours,

Roger H. Imoto  
Administrator

Enclosure

USDA Forest Service  
Cooperative Forestry Assistance Program  
Fiscal Year 2012

# FINAL REPORT

11-DG-11052012-031

Submitted by:

Wayne F. Ching  
State Protection Forester  
Fire Management Officer



State of Hawaii  
Dept. of Land & Natural Resources  
Division of Forestry & Wildlife

**2011-2012**  
**11-DG-11052012-031**  
**FINAL REPORT**  
Cooperative Forestry Assistance Program  
State Fire Assistance (VFA)  
Volunteer Fire Assistance (SFA)

## **I. State Fire Assistance**

### **Statement of Need:**

By statutory responsibility, the Hawai'i Division of Forestry and Wildlife (DOFAW) has a mission to provide fire protection of forest reserves, public hunting areas, wildlife and plant sanctuaries, and natural area reserves. It also cooperates with established fire control agencies for the protection of other wildlands and rural areas not within the Division's protection areas. In effect, DOFAW executes its fire management program to provide for public safety and to hold environmental damage below the level at which it would interfere with sustained of services and commodities from these rural and wildland areas.

By virtue of its core mission, DOFAW plays a pivotal role in protecting the state's watersheds and unique forest resources, i.e. minor/major forest products and threatened and endangered species. Because wildfire is a threat to Hawai'i's economy, society, and natural resources, all levels of government have established fire services to guard against the ravages of uncontrolled conflagration.

### **Goals and Objectives:**

**[The following goals and objectives reflect those in the 2010 Hawaii Assessment of Forest Conditions and Resource Strategy document]**

- To reduce the threat and losses from wildfires in interface areas on private and state lands through public and interagency participation.
- To provide protection for forest, brush, natural areas, and grassland to the extent needed to hold fire damage below the level at which it would interface with high-level, sustained yield of products and services from these lands.
- To minimize man-caused fires by improving agency prevention program(s) via training, technical assistance, and utilization of contemporary techniques for public education measures.
- To improve the response and firefighting capability of agency(s) via training, equipment acquisition, and organizational structure and procedures.
- To suppress wildfires in a safe manner and at a minimum cost consistent with land and resource management goals.
- To integrate fire management as an element of natural resource management.

## **Programs & Activities**

The following highlights the activities that occurred in the prevention, presuppression, and suppression programs during this grant period.

### **Prevention**

- Continue to develop and improve the Fire Prevention Program consistent with the national Cooperative Forest Fire Prevention Campaign.
  1. Handed out Smokey Bear material during Fire Prevention Week (Oct. 3-7, 2011) in cooperation with the various county fire departments statewide.
  2. Continued to maintain and upgrade DOFAW's statewide fire prevention material inventory. This included handed out pamphlets and brochures to the public on fire and camping safety.
- Continue to promote the Firewise concept to communities at risk and provide information to 45 rural communities statewide.
  1. The Firewise Coordinator provided outreach assistance to 45 communities on all the major islands.
- Participate in fire prevention activities, e.g. Smokey Bear appearances at various parades, schools, farm fair venues, etc. and work with the county fire departments in conjunction with their fire prevention education programs.
  1. Smokey Bear made an appearance for 100 Kindergarteners and 1<sup>st</sup> graders for Kaumana Elementary School (Nov.), and did a fire prevention presentation for 47 students from Waiakeawaena Elementary School, island of Hawaii (Nov).
  2. Smokey Bear made an appearance with the Maui Fire Department at the Kahului Baptist Preschool for 80 students (Oct.)
  3. Smokey Bear made appearances at the Children's House Elementary School (300 children), Waipahu Elementary (150 children) and Kapolei Farmers Market (50 children), island of Oahu.
  4. Smokey Bear visited all elementary schools (approx. 2500 children) on the island of Kauai during Fire Prevention Week (oct. 3-7, 2011)
- Continue to identify, update, and work with wildland urban interface communities in developing Community Wildfire Protection Plans.
  1. The Hawaii Wildfire Management Organization (HWMO), in conjunction with the Firewise coordinator, has completed extensive outreach to communities on Hawaii island and Maui.
- Other projects include the following:
  1. Provided personnel to serve as Lookouts at the Mauna Kea 200 motorcycle race in Mauna Kea Forest Reserve.
  2. Continued to work on the agency's historical GIS wildfire database.

3. Gave a presentation to a Hilo High School guidance class (25 students) that included the importance of fire management in protecting our forest, water and ocean resources.
4. Conducted outreach day for Kahului Baptist Preschool (Fire Day) with assistance from the Maui Fire Department. Smokey Bear made an appearance in front of approximately 80 students and faculty.

### **Presuppression**

- Conduct basic firefighting and specialized training statewide, based on Branch needs; collaborate with other fire agencies in the development and use of joint training opportunities.
  1. Conducted two firefighter safety workshops on Molokai for Molokai Fire Task Force participants (including MFD, TNC, Community Associations, Council Aides, USDA NRCS, Molokai Ranch, etc.). The intent was to bring awareness to community members on the dangers and steps firefighters follow to ensure firefighter safety. Also covered basic fire behavior and ICS issues.
  2. The DOFAW Fire Cadre conducted the 130/190 training on Kauai (Sept. 12-16, 2011) for 15 Kauai DOFAW and Kauai Fire Dept. recruit class. A training session was also conducted on Hawaii for 25 DOFAW and NPS personnel (Aug. 29- Sept. 2, 2011).
  3. Participated in the State-wide emergency response operations briefings conducted by the State Civil Defense Agency regarding flooding, tidal wave, and high surf conditions.
  4. Conducted a wildland fire safety workshop for county public works, private contractors, Maui Police Department and Mayor's office personnel who manage or work in the West Maui area. This training was a result of the West Maui Fire Task Force discussions, etc. Thirty people attended the workshop.
  5. Conducted the Statewide annual fire safety refresher for all DOFAW fire personnel and National Park Service's Haleakala and Kalaupapa employees.
  6. Provided assistance to the Hawaii Volcanoes National Park by providing instructors for the refresher training in American Samoa.
  7. Conducted field exercises with DOFAW Branch personnel on fire vehicle and pump operations.
  8. The State Protection Forester and the Oahu Forestry Manager conducted a radio commo. workshop for 12 DOFAW personnel.
  9. The Maui Protection Forester conducted a basic annual fire refresher workshop for The Nature Conservancy of Hawaii, private contractors and other local government agency personnel, island of Molokai (Dec. 2011).
  10. The Oahu Forestry Manager and State Protection Forester attended a Bambi bucket training workshop (Dec. 2011).

- Continue to improve and maintain the Remote Automatic Weather Stations on Kaua'i, O'ahu, Maui, and Hawai'i.
  1. Maintained 19 RAWS statewide on Kauai, Oahu, Maui, Molokai, Lanai, and Hawaii island.
  2. Installed two new RAWS - one on Maui, and one on Hawaii island.
- Incorporate the Geographical Information System concept including the development and maintenance of fire maps, fire weather data, and other fire-related matters.
  1. Updated the DOFAW Fire Reporting System.
  2. Fire training records were updated for all DOFAW employees.
  3. The Division GIS Specialist updated the Fire Response Maps for Kauai, Oahu, and Maui Branches. These updates were due to changes in land ownership.
- Participate in the Western State Fire Managers, California-Nevada-Hawai'i Forest Fire Council, the Hawai'i Fire Chiefs Association meetings and other seminars and conferences that promote fire health and safety.
  1. The DOFAW Fire Cadre attended the NFPA Wildland Urban Interface course sponsored by the Maui Fire Department (Aug. 4-5, 2011).
  2. Three members of the DOFAW Fire Cadre attended the California/Nevada/Hawaii Forest Fire conference in South Lake Tahoe, CA (Oct. 25-27, 2011).
  3. The State Protection Forester attended the NWCG Risk Management Committee (RMC) meeting in Gettysburg, PA (Oct.18-20, 2011). The State Protection Forester is a member of the RMC and represents the Council of Western State Foresters on the committee.
  4. The DOFAW Fire Cadre, with the HI Branch Forestry Manager, attended the Hawaii Fire Chiefs Association annual conference (Dec. 8-10, 2011) on Oahu. At the conference, the State Protection Forester was elected to serve a two-year term as a Board Member of the Hawaii Fire Chiefs.
  5. DOFAW hosted the California/Nevada/Hawaii Forest Fire conference on the island of Lanai (April 11-13, 2012). Over 110 participants from international, federal, state, and local government agencies attended the conference.
- Continue to conduct in-house fire management core group meetings as needed to resolve fire protection issues, consolidate training, etc.
  1. The DOFAW Fire Cadre attended quarterly meetings as a participating member of the Maui and Big Island Wildfire Coordinating Groups.
  2. The annual DOFAW Fire Core group meeting was held in August 2011. Topics discussed at this meeting include upcoming projects, training, budget, excess property management, and reporting.

- Continue to manage and use all Federal Excess Personal Property (FEPP) equipment statewide in accordance with program regulations, conduct onsite reviews, and complete an annual physical inventory of all FEPP equipment.
  1. The agency acquired several engines from the Region to add to the local VFD FEPP inventory.
  2. Maintained FEPP vehicles and equipment statewide.
  3. Updated the FEPP inventory.
- Continue to integrate fire protection concepts with other resource management programs within the agency.
  1. The DOFAW Fire Management personnel provided comments and recommendations to the updated Forest Management plans for statewide forest reserves.
- Construct and maintain existing firebreak roads, trails, etc.
  - 1) Maintained and improved 42 acres of firebreaks/roads in Mauna Kea FR and Kaohe Game Mgmt. Area, island of Hawaii.
  - 2) Maintained and improved 79 acres of firebreaks/roads in Puu Waawaa Forest Reserve, island of Hawaii.
  - 3) Maintained 27 acres of roads/firebreaks in Puu Anahulu GMA (West HI Wildlife), island of Hawaii.
  - 4) Maintained 5.5 acres of roads/firebreaks in Honuaula Forest Reserve, island of Hawaii.
  - 5) Maintained 67 acres by spraying fountain grass and molasses grass along a section of the new Saddle Road, island of Hawaii.
  - 6) Maintained 5.5 acres of roads/firebreaks in Puu Mali Mitigation Lands, island of Hawaii.
  - 7) Maintained 7.3 acres of fuel break in the Lanai Game Management Area, island of Lanai.
  - 8) Maintained 10 acres of fuel break in the Molokai Forest Reserve, island of Molokai.
  - 9) Maintained 20 acres of fuel break in the Kula Forest Reserve, 5 acres in Makawao Forest Reserve, and 5 acres in and around the Lahaina *Gouania* enclosure, island of Maui.
  - 10) Maintained 35 acres of roads/firebreaks in the Waianae Kai, Kuaokala, and Mokuleia Forest Reserves, island of Oahu.
  - 11) Maintained 133 acres of fire break in the Puu Ka Pele Forest Reserve, island of Kauai.
  - 12) Maintained 65 acres of fire break in the Na Pali Kona Forest Reserve, island of Kauai.

- 13) Maintained 5.5 acres of access/fire break roads in the Lihue-Koloa Forest Reserve, island of Kauai.
- 14) Maintained 1600 acres of fire break in the Kekaha Game Management Area, island of Kauai.
- 15) Maintained 14 acres of safety zones in various Forest Reserves, island of Kauai.
- 16) Established two new safety zones (3.5 acres) on Kauhao Ridge Road, island of Kauai.
- 17) Ten (10) acres of established helicopter landing zones in remote areas were maintained for fire emergencies, island of Kauai.
- 18) Established 3 new safety zones (3.5 acres) in the Puu Ka Pele Forest Reserve, island of Kauai.

## **Suppression**

- Continue to gather statewide fire data and add to the existing database for data analysis and reporting fire history for each Branch.
  1. The DOFAW fire records were updated and added to the current database. This data is sent forward to the Region as part of the annual wildfire report as well as the National Association of State Foresters fire data base.
- Respond to each wildfire incident in a timely manner with appropriate forces as mandated by the provisions of the Land Fire Protection Law (Chapter 185, Hawai'i Revised Statutes).
  - 1) During this period, the agency was involved in 10 fires, involving 2,168 acres. The agency also provided assistance in suppression efforts to other fire management agencies:
    - The Maui Branch provided assistance to the Maui Fire Department on the Kahana Iki Fire (75 acres) in Sept, 2011.
    - The Hawaii Branch provided assistance to the US Army on the Kilohana Fire (1,100 acres) in Sept., 2011.
    - The State Protection Forester provided assistance as a Safety Officer to the HI Volcanoes NP on the Kamoamoa Fire (Aug. 5-7, 2011).
- Assist the U.S. Forest Service, as needed, in training, wildland fire and other non-fire emergencies in the continental U.S. and the western Pacific territories.
  1. No assistance was required by the U.S. Forest Service. However, DOFAW did provide two instructors to the HI Volcanoes National Park in assisting with their annual Refresher Training in American Samoa.

## **Evaluation and Monitoring**

- Record keeping will be done via various reports (i.e. USFS six-month progress month report and final Performance Report, NFPORS, Annual Accomplishment Report, Annual Wildfire Statistics, State Fire Date, etc.) which will be kept on file for inspection.
  1. The various reports as stated above were submitted as required.
- Reduction in the number and size of wildfires, increased public awareness of fire prevention, improved organizational and cooperative prevention planning and coordination.
  1. The number and size of wildfires during this period was slightly above average (10 fires). During this grant period the average size of the fires was 217 acres. Over the last ten years (2002-2012), we were engaged in approximately nine fires per year. The average number of acres burned per year was 7,561 acres. The average size of the fires per incident was 831 acres.
  2. We continuously work on outreach through various venues including visiting elementary schools, provide a presence at county and community fairs and events, and interface with the various county fire department prevention programs to get the message across on fire prevention. The Hawaii Wildfire Management Organization has been a tremendous asset in interfacing with communities at risk from wildfires. The Firewise Coordinator also provides that needed outreach in community interface in all things Firewise and Fire Safe.



Joe Molhoek (left), NPS Pacific Region FMO, conducts a sand table exercise in American Samoa. Two DOFAW personnel assisted Molhoek in the annual Refresher Training.



Participants of the California/Nevada/Hawaii Forest Fire conference pose for a picture in front of the Lanai Culture & Heritage Center. Over 110 people were in attendance at the conference.



Ops. Chief Lance De Silva (L), confers with John Neizman and Steve Bergfeld on the Hikimoe Fire on Kauai.



Kauai Fire Dept. recruits prepare to undertake a hose lay exercise under the watchful eyes of HI Branch Protection Forester Jay Hatayama (right).