

Pacific Fire Exchange FY24 Annual Report Narrative

Overview

The Pacific Fire Exchange (PFX) was formally established with JFSP funding in 2012 as a partnership between the University of Hawaii at Manoa (UHM), the non-profit Hawaii Wildfire Management Organization (HWMO), and the USDA Forest Service (USFS). The roles played by these organizations have evolved and are currently as follows: the PI at UHM contributes overall project oversight and leadership and contributes to scientific content; HWMO provides co-leadership and oversight (vision/goal setting, strategic planning, monitoring and evaluation, report writing) through the involvement of the co-Executive Directors (Nani Baretto and Elizabeth Pickett) and covers logistics and the development, dissemination, and evaluation of PFX educational products/events through the PFX Coordinator. USFS Institute of Pacific Island Forestry Ecologist Dr. Susan Cordell provides governance leadership as the chair of the 12-member PFX Steering Committee consisting of researchers, fire responders and land managers. The PFX covers Hawaii and the US-affiliated Pacific Islands (Territories and 'Freely Associated States') of Guam, the Commonwealth of the Northern Marianas (CNMI), the Republic of Palau, the Federated States of Micronesia (FSM), the Republic of the Marshall Islands and American Samoa. The focus of the PFX efforts across this vast area has been informed by input from land managers, fire responders, and communities across the region (ranked and prioritized via stakeholder survey <https://pacificfireexchange.org/researchers/>), the availability of information (e.g. primary research) as well as the frequency of fire occurrence and severity of fire impacts, which differ dramatically across the region.

The 2023 Maui Fires deeply impacted PFX leadership and staff both professionally and personally. It also marked a turning point that influenced project outputs and outcomes throughout FY24. Amid the immediate shock and global attention, the value of JFSP's investment – both in the PFX's body of work and the people the project has supported over the years including Dr. Trauernicht's and Ms. Pickett's positions in the past and the PFX coordinators past and present – became immediately apparent. The hundreds of requests for information and interviews, invitations to speak and collaborate, and the use of PFX outputs across social media not only helped local and national leadership and the general public understand the causes of these fires, but also how we might respond as a society.

Success Story 1 – Conceptual: Rapid Response to the 2023 Maui Fires

Topic areas: ***Invasive plant species, Vegetation, Soil, Watershed processes, Postfire recovery and management***

In the months that followed the 2023 Maui Fires, PFX leadership and staff provided more than 50 TV, Radio, and Newspaper interviews and over a dozen requests for information briefs from county, state, and federal leadership. However, as we moved into FY24, the PFX PI and Coordinator scrapped our conventional webinar and fact sheet projects in order to organize and respond to the most pressing needs articulated in dozens of direct requests from community members and land managers. This culminated in the development of an online [After Fire technical guide](#), which compiled existing and developed new guidelines for post-fire assessment and response tailored to the Hawaiian environment. While the resource page was posted live

within a few weeks of the fires, over October and November of 2023, we worked to improve the content and organization based on expert vetting by our Steering Committee and on ongoing requests and feedback from end-users.

The [After Fire webpage](#) was accessed over 900 times over the first three months of FY24. This pivot reflects prior efforts by the project to respond to and integrate emergent fire incidents in the program work plan. However, the success of our response to the Maui Fires ultimately depended on the project's in-house expertise and reputation, the responsiveness of our Steering Committee, and the adaptability of the project's program of work – all of which is made possible by the long-term and continuing support of JFSP.


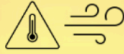









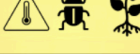





			
<p>After fire, first things first.</p> <p>In the aftermath of evacuation and recovery, communities and responders are often dealing with hazardous environmental conditions which call for vigilant public safety and environmental stabilization.</p>	<p>For long-term wildfire risk mitigation planning, supporting agriculture and reducing fuels around your home and community are key.</p> <p>The role that farms and ranches play in land care is critical across fire prone landscapes. Ranches and farms keep fire-prone weeds at bay to maintain pastures and crops.</p>	<p>What is your emergency soil stabilization plan? This can be done in various high-tech and low-tech ways.</p> <p>After human health and safety, the first priority is to protect the soils from rain and run-off.</p>	<p>Consider re-vegetating burned areas in a way that makes sense for your environment while knowing that resources (time, money, long-term stewardship) may vary.</p> <p>Re-planting is an important, long-term strategy for soil stabilization. While native Hawaiian plants are always desirable, they require a great deal of care, such as water, fencing and weeding.</p>

Re-organized, thematic links on the PFX “After Fire” page for all available resources related to post-fire response compiled after the 2023 Maui Fires.






Success Story 2 – Instrumental: Meeting Critical, Emergent Information Needs
Topic areas: ***Invasive plant species, Vegetation, Watershed processes, Fuels management,***

The Lahaina and Kula fires exemplified all the factors the PFX has communicated for more than a decade: unmanaged [post-agricultural lands](#), fire-prone [nonnative grasses](#), wet-dry [weather cycles](#), and [rapidly moving fires](#). The relevance of this information is evidenced by the incredible growth of website traffic, with page views increasing to over 48,000 in FY24 compared to 10,000 the year prior. In addition, of the many high level Information briefs to federal, state, and county organizations, the use of PFX products and analyses in FY24 by the [Lahaina Fire Incident Analysis](#) commissioned by Hawai'i State Attorney General and the Hawai'i House of Representatives Wildfire Prevention Working Group's [Final Report](#) are highly likely to have medium- to long-term impacts on future fire-related policy in Hawaii.

On a more practical level from the perspective of PFX end-users, from November 2023 to March 2024, the Project PI and Coordinator responded to dozens of inquiries from the general public and state and county agencies about fire history data and low flammability plants. Given the lack of quantitative research on plant flammability in Hawaii, we turned to our practitioner community – landscapers, extension agents, horticulturalists, and land managers – and surveyed more than 60 experts to brainstorm species recommendations and elicit knowledge on environmental tolerances, cultivation, and seed sourcing for 30 plant species. We organized this information as another online technical guide for creating green breaks. By March of 2024, the project organized and published all available [fire history data](#) online and released [Coastal Plants for Green Breaks](#) which were the most accessed pages in 2024 with over 2100 and 1700 pageviews, respectively. In addition, the Coastal Plants for Green Break guide is currently being used by the Maui County Office of Recovery and the Surfrider Foundation to inform public outreach and plant distribution for Lahaina residents directly impacted by the fires.

Polynesian Introduced Plants			
Polynesian Introduced	Susceptible	Moderate	Tolerant
17. `Ulu (breadfruit) <i>Artocarpus altilis</i>			
18. Kamani tree <i>(Calophyllum inophyllum)</i>			
19. Kukui, candlenut tree <i>(Aleurites moluccanus)</i>			
20. Mai'a, banana (<i>Musa</i> species)			
21. `Uala (<i>Ipomoea batatas</i>)			
22. Hau, beach hibiscus <i>(Hibiscus tiliaceus)</i>			
23. Noni (<i>Morinda citrifolia</i>)			

[↩ `Ulu](#) ↪ [Kamani](#) ↪ [Kukui](#) ↪ [Mai'a](#) ↪ [`Uala](#) ↪ [Hau](#) ↪ [Noni](#)

 Drought
  Heat / Wind
  Pests / Pathogens
  Weed competition
  Palatable to goats, deer, etc.

Example of environmental tolerances of polynesian introduced plants derived from practitioner knowledge for use in green breaks from the PRFX website.

Success Story 3- Capacity-Building: Re-configuring the exchange for future success

Topic Areas: ***Social science and human dimensions***;

The major lesson from changes in the social landscape since the Maui Fires is that the new level of interest and societal need clearly require a full-time coordinator for the exchange. Not only has interest in and information needs generally exploded in the Pacific Region, so has the breadth of PFX audience, which now includes a much wider swath of the general public. In addition, the requests from researchers and the production of new fire science following the Maui fires is unprecedented. These fires have also altered both UH Extension program's and Hawaii Wildfire Management Organizations' approach and project portfolios. For instance, Dr. Trauernicht has raised several large grants for plant material development for post-fire response and fire mitigation project planning, while HWMO has expanded its staff and will be taking on a suite of projects including CWPP development and expansion of its firewise community program. These changes will provide incredible opportunities for the PFX to support science communication and education and both UH and HWMO will benefit from a higher level of time commitment and independence that a full-time Coordinator will bring to the table.

Our half-time coordinator left in March of 2024, and we have only just made an offer to hire a full-time coordinator, again based at Hawaii Wildfire Management Organization. For the sake of clarity in terms of project implementation and supervision, we have also decided to make HWMO the prime funding recipient. This will help to move responsibilities for project reporting and budget tracking into the Project Coordinator's plate and better balance the evolving and increasing workloads being placed on the PI and co-PIs. Again, this kind of flexibility is made possible by the relationships among project partners and ongoing support of our Steering committee, which is ultimately due to long-term investment by JFSP.

Connecting Short-Term and Long-Term Objectives

PFX maintains both the reputation and the portfolio of products that met critical and fundamental needs of leadership following the Maui Fires. Again, amid many high level Information briefs to federal, state, and county organizations, the use of PFX products in the Hawai'i State Attorney General's [Lahaina Fire Incident Analysis](#) and the 2023 Hawai'i House of Representatives Wildfire Prevention Working Group's [Final Report](#) are exemplary. Importantly, these reports are highly likely to have medium- to long-term impacts on future fire-related policy in Hawaii, especially related to funding and compliance for fire mitigation actions, which contribute to the PFX's long-term goals of reduced fire impacts.

The Maui fires dramatically raised the profile for fire-related projects in Hawaii, yet the availability and relevance of PFX resources directly informed a suite of funded fire research and mitigation projects totaling more than \$20 million from the [REPI program](#), the [US Forest Service](#) and various [environmental](#)- and [health](#)-related research projects at the University of Hawaii at

Manoa and other research institutions. This includes efforts under the leadership and collaboration of Dr. Trauernicht to develop seed production (\$3.6 million via the DoD REPI program and \$4.6 million from the US Forest Service in 2024) for post-fire restoration, and \$1.3 million to develop fire risk exposure, mitigation costs, and planning criteria to support risk reduction projects for communities adjacent to military lands. These outcomes are clearly related one of the PFX's core long-term goals of increased investment in fire mitigation and research but, again, are largely due to the Maui fires. However, the existence of PFX products and reputation have helped to inform and, importantly, to focus these efforts so that they meet real world needs.