

# CATASTROPHIC WILDFIRE IN CALIFORNIA THE SEARCH FOR SOLUTIONS

## Fire Management 24/7/365:

*Report of a workshop on the mitigation of wildfire risk  
in the mixed conifer forests of California*

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### Abstract

Catastrophic wildfires, sometimes called “megafires,” are more and more common in the western United States. California in particular is increasingly thought of as having a year-round (24/7/365) fire season. These megafires ignore boundaries, require prolonged and expensive interagency responses, and harm natural and cultural resources. Many agencies have developed programs designed to reduce wildfire risk, such as through the use of mechanical thinning or prescribed fire. However, these programs often are treating far fewer acres than called for in planning documents. Experienced fire scientists and managers believe it is time to reassess fire and fuels management programs. Working with a number of partners, the George Wright Society organized a workshop in February 2021 to address these issues, titled “Fire Management 24/7/365: A Workshop on the Mitigation of Wildfire Risk in Mixed Conifer Forests of California.” This paper reports on the workshop and plans for future collaboration.

**Extreme and catastrophic fire events** over the past few years have caused fire and resource agencies to reassess their priorities and consider ways to more effectively manage risk, as well as restore fire-dependent ecosystems. In 2020, in California alone, 4.2 million acres burned, 10,500 structures were destroyed or damaged, and 31 people were killed. Nationally, 10.3 million acres burned. And 2020 was a replay of 2019, 2018, and 2017. These are sobering statistics. As a result, many members of the George Wright Society (GWS) have been drawn into the crisis, as well as the efforts to find solutions.

One member of GWS suggested a workshop to find ways to increase prescribed burning and other needed treatments in the Sierra Nevada, to reduce the risk of megafires. Taking this suggestion to heart, GWS staff

and present and past board members consulted GWS members in the Sierra Nevada to determine whether such a workshop would be helpful in their efforts to address the issue, and if so, what workshop content would be most valuable.

Consultations suggested that current fire and resource managers agreed with the suggestion. They saw the potential benefits of such a workshop, but also the need to begin doing things differently. For one, they believed such a workshop should focus primarily on outcomes rather than only the delivery of information. They also felt they should be planning and conducting their projects working with other agencies within the larger landscape, that they should be finding ways to work together to achieve mutual and individual agency goals, and on larger landscape-

scale projects when possible. Having heard this from National Park Service (NPS) managers in Sequoia-Kings Canyon and Yosemite National Parks, we reached out to US Forest Service (USFS), CAL FIRE, and regional land management collaborations to see if there might be interest within those agencies/groups for such a workshop. What we heard from USFS and CAL FIRE, in particular, echoed what was said in NPS. On that basis, we committed to organizing what we called Fire Management 24/7/365: A Workshop on the Mitigation of Wildfire Risk in the Mixed Conifer Forests of California.

### The workshop

**What was conducted?** Fire Management 24/7/365 was conducted as a collaborative workshop designed to produce real, on-the-ground projects and other advances that increase the cooperative use of prescribed fire and other fuels treatments in California’s mixed conifer forest ecosystems. After almost a year’s delay and two format changes caused by the pandemic, the workshop was held in an all-virtual format on February 11–12, 2021. The teamwork started by the workshop continues, and so this report may be regarded as an opening account of what we hope will be enduring collaborations.

**Why did we do this?** Catastrophic wildfires, sometimes called “megafires,” are more and more common in the western United States. California in particular is increasingly thought of as having a year-round (24/7/365) fire season—hence the name of the workshop. These megafires ignore boundaries, require prolonged and expensive interagency responses, and harm natural and cultural resources. Many agencies have developed programs designed to reduce wildfire risk, such as through mechanical thinning and/or prescribed fire. However, these programs often treat far fewer acres than called for in planning documents. Experienced fire scientists and managers believe it is time to reassess fire and fuels management programs and to find new ways of addressing risk.

### Building the case: The program

Livestreamed opening and closing Plenary Sessions explored the impacts of the 2020 fire season on the future management strategies of four key agencies: the California Natural Resources Agency, CAL FIRE, USFS, and NPS.

Keynote speakers (listed in the workshop program, Figure 1) reflected on their agency’s fuels/prescribed fire program in light of the characteristics of the 2020 wildfires, offering thoughts on possible modifications to the fuels/prescribed fire program, such as expanding the size of projects, the season of these projects (i.e., beyond spring and fall), and expanded partnerships for larger interagency projects. The speakers explored the need and prospects for strategic shifting of operations funds (as appropriate) from fire suppression to fire prevention (social program and fuels management), and changes their agency needed to make with respect to getting more prescribed fire, fuels treatments, and ecosystem restoration.

Plenary Sessions provided additional context and perspectives on what changes are needed and what challenges lie ahead for wildland fire management in California. The opening and closing Plenary Sessions were recorded and are available on the [George Wright Society YouTube channel](#).

**Outcomes: the core of the workshop, planning for projects.** Three Working Sessions—virtual table-top exercises—were designed to start or advance on-the-ground, cross-agency, multi-disciplinary collaborative projects to start treating more acres.

The Working Sessions focused on prescribed fire and fuels treatments in three geographic areas: Stanislaus National Forest/Yosemite National Park, Sequoia National Forest/Sequoia-Kings Canyon National Parks, and mixed conifer forests in Southern California.

The sessions were virtual, with participation through Zoom. The Working Sessions were by invitation and not videorecorded. Detailed meeting minutes were kept. Each session had two co-leads, a facilitator, and a recorder. Participants included agency fire and fuel managers and experts such as fire ecologists, fuels management specialists, and air quality, cultural resource, wildlife, and other professional specialists from the major organizations working on each landscape.

- “Enhancing the Giants” focused on Stanislaus National Forest (USFS) and Yosemite National Park (NPS). Staff from these units worked

Figure 1. Fire Management 24/7/365: the workshop program, Day 1.



## A Workshop on the Mitigation of Wildfire Risk in Mixed-Conifer Forests of California

**February 11–12, 2021**  
[georgewrightociety.org/fire](http://georgewrightociety.org/fire)

### PROGRAM | AS OF FEBRUARY 8 • ALL TIMES ARE PST (PACIFIC STANDARD TIME)

#### THURSDAY, FEBRUARY 11

	<b>Opening Plenary Session</b> (livestreamed) <b>Chair: Jerry Mitchell</b> , George Wright Society; chair of Fire Management 24/7/365 Steering Committee		
8:00–8:30a	<b>Welcome / Indigenous Acknowledgement / Overview</b> Welcome / Acknowledgement of Original Stewards / Other Acknowledgements: Jerry Mitchell Overview of Workshop: <b>Jerry Mitchell</b> & <b>Tom Nichols</b> , member, Fire Management 24/7/365 Steering Committee		
8:30–8:45a	<b>Presentation: Collaborative Leadership on Wildfire Management: Core Elements of Success</b> <b>Sharon Farrell</b> , Golden Gate National Parks Conservancy / California Landscape Stewardship Network		
8:45–9:00a	BREAK		
9:00–10:30a	<b>Panel Discussion: “What Needs to Change — Now — in the Wake of California’s 2020 Wildfire Season”</b> <b>Moderator: Jerry Mitchell</b> Introduction to session, speakers by moderator (5 mins) Keynote panelists: <ul style="list-style-type: none"> <li>• State of California perspective: <b>Jessica Morse</b>, Deputy Secretary, Forest Resources Management, CA Natural Resources Agency (confirmed) (15 mins)</li> <li>• CAL FIRE rep: <b>Helge Eng</b>, Deputy Director, Resource Management (15 mins)</li> <li>• USFS rep: <b>Tony Scardina</b>, Deputy Regional Forester (15 mins)</li> <li>• NPS rep: <b>William Kaage</b>, Chief of Fire &amp; Aviation Management (15 mins)</li> </ul> Moderated discussion among panelists (25 mins)		
10:30–11:00a	BREAK		
	<b>Working Sessions (by invitation only) • 11:00a–5:00p</b>		
	<b>STF/YOSE Hub: “Enhancing the Giants”</b> <b>Chairs: Rebecca Johnson (USFS), Jim Junette (USFS), Dan Buckley (NPS)</b>  In this series of working sessions USFS Stanislaus NF (STF) staff and NPS Yosemite (YOSE) staff will work together with subject matter experts to examine the potential for cross boundary wildland fire and fuels management treatments in the North Merced/Merced Grove/Crane Flat Area, especially the area of land spared by the 2013 Rim, 2018 Ferguson and other recent fires. We will explore the possible application of PODS using ForSysX to identify areas of highest priority, and what would be the most beneficial treatments to better manage future unplanned wildfires. We will discuss stewardship authorities and	<b>SQF/SEKI Hub: “Big Stump to Redwood and Beyond”</b> <b>Chairs: Angel Prieto (USFS), Christy Brigham (NPS)</b>  In this series of working sessions USFS Sequoia NF staff and NPS SEKI staff will work together with subject matter experts to examine the scope of the fire and fuels management problem across Sequoia NF and SEKI, identify work already planned, identify target areas for interagency treatments, and seek streamlined and more efficient mechanisms for planning and implementing forest treatments. In addition we will share learning and investigate approaches to California Fisher habitat management (relying on guidance in agency BO’s), as well as approaches to prioritizing giant sequoia groves for treatment. We will also look for opportunities to conduct large landscape scale treatments and areas	<b>“Saving Conifer Forests of Southern California through Project Collaboration and Development”</b> <b>Chairs: Len Nielson (CAL FIRE), Terri Thomas (GWS), Randy Striplin (USFS)</b>  Our workshop hub will be discussing and guiding through project collaboration and the development process’ for projects in San Diego and San Bernardino, CA. We are working with real projects to demonstrate and learn the barriers and success of these two projects. The knowledge gained and shared from these project collaborations will help guide you for your projects. Giving you tools of trade and will help you identify what to expect when similar barriers arise for your projects. These sessions are centered around project implementation and development for fuel reduction to meet California’s goal of one million acres annually across Private, Tribal, State, and Federal land partnerships. Be prepared to take away methods and strategies to

together with subject-matter experts to examine the potential for cross-boundary wildland fire and fuels management treatments in the North Merced/Merced Grove/Crane Flat Area, especially the area of land spared by the 2013 Rim, 2018

Ferguson, and other recent fires. They explored methods to identify areas of highest priority, and what would be the most beneficial treatments to better manage future unplanned wildfires. They discussed stewardship authorities and potential

Figure 1 (cont'd). Fire Management 24/7/365: the workshop program, remainder of Day 1.

	potential partnership agreements between the STF and YOSE. Part of our process will be to identify work already planned, identify target areas for interagency treatments, and seek streamlined and more efficient mechanisms for planning and implementing forest treatments. We will also discuss capability and capacity to conduct multiple landscape level treatments, including staffing, funding mechanisms and agreements. We will share learning and investigate approaches to California Fisher habitat management (relying on guidance in agency BO's), as well as approaches to prioritizing and preserving giant sequoia groves. Finally, we will report out on what we see as barrier to both interagency planning and projects as well as impediments to increasing the pace and scale of forest treatments.	for efficiencies and removal of impediments to this type of work. Finally we will report out on what we see as barrier to both interagency planning and projects as well as impediments to increasing the pace and scale of forest treatments.  Participants will include NPS and USFS staff as well as experts on Fisher and sequoias.	accomplish these goals working through collaborations. These collaboration projects are California's paradigm shift to create a more resistant forest through resiliency and restoration.
11:00a-12:15p	Working Session A1: Workshop Objectives and Planning Area Description	Working Session B1: Introductions / Objectives	Working Session C1: Southern Cal Hub collaboration and tools for projects
12:15-2:00p	LUNCH BREAK		
2:00-3:15p	Working Session A2 Use of Tool	Working Session B2	Working Session C2: Saving San Diego's last mixed Conifer Forest
3:15-3:45p	BREAK		
3:45-5:00p	Working Session A3 Project Planning Area (PPA)	Working Session B3	Working Session C3: Success and barriers that presented themselves to the project

partnership agreements between Stanislaus and Yosemite. Part of our process was to identify work already planned, identify target areas for interagency treatments, and seek streamlined and more efficient mechanisms for planning and implementing forest treatments. They also discussed the capability and capacity to conduct multiple landscape-level treatments, including staffing, funding mechanisms, and agreements. They shared learning and investigated approaches to California fisher habitat management, as well as approaches to prioritizing and preserving giant sequoia groves. Finally, they reported out on what they saw as barriers to both interagency planning and projects as well as impediments to increasing the pace and scale of forest treatments.

- “Big Stump to Redwood and Beyond” focused on Sequoia National Forest and Sequoia-Kings Canyons National Parks (SEKI). Staff from these units worked together with subject-matter experts to examine the scope of the fire and fuels

management problem across Sequoia NF and SEKI, identify work already planned, identify target areas for interagency treatments, and seek streamlined and more efficient mechanisms for planning and implementing forest treatments. In addition, staff shared learning and investigated approaches to California fisher habitat management, as well as approaches to prioritizing giant sequoia groves for treatment. They also looked for opportunities to conduct large landscape-scale treatments and areas for efficiencies and removal of impediments to this type of work. Like the “Enhancing the Giants” working hub, they reported out on perceived barriers to success.

- “Saving Conifer Forests of Southern California through Project Collaboration and Development” focused on Cleveland and San Bernardino National Forests, tribal lands, Resource Conservation Districts, and other lands in San Diego County. This workshop hub discussed and was

Figure 1 (cont'd). Fire Management 24/7/365: the workshop program, Day 2.



**A Workshop on the Mitigation of Wildfire Risk  
in Mixed-Conifer Forests of California**  
February 11–12, 2021  
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**FRIDAY, FEBRUARY 12**

Working Sessions (by invitation only) • 8:00a–12:30p			
8:00–9:15a	<b>STF/YOSE Hub: “Enhancing the Giants”</b> Chairs: Rebecca Johnson (USFS), Jim Junette (USFS), Dan Buckley (NPS)  Working Session A4 Capability and Capacity	<b>SQF/SEKI Hub: “Big Stump to Redwood and Beyond”</b> Chairs: Angel Prieto (USFS), Christy Brigham (NPS)  Working Session B4	<b>“Saving Conifer Forests of Southern California through Project Collaboration and Development”</b> Chairs: Len Nielson (CAL FIRE), Terri Thomas (GWS), Randy Striplin (USFS)  Working Session C4: Emerging Santa Ana Project in San Bernardino NF
9:15–9:45a	BREAK		
9:45–11:00a	Working Session A5 Priorities and Protections	Working Session B5	Working Session C5: Continuation of session C4: How does this project parallel other projects
11:00–11:15a	BREAK		
11:15a–12:30p	Working Session A6 Draft report to Closing Plenary, Wrap-up & Next Steps	Working Session B6: Draft report to Closing Plenary, Wrap-up & Next Steps	Working Session C6: Draft report to Closing Plenary, Wrap-up & Next Steps
12:30–2:00p	LUNCH BREAK		
2:00–3:15p	<b>Closing Plenary Session (livestreamed)</b> <b>Panel Discussion: “Bringing It Full Circle: Reports from Hubs, Reactions from Agency Representatives”</b> <b>Moderator: Jerry Mitchell</b> Introduction to session, speakers by moderator (5 mins) Reports from Hubs— <ul style="list-style-type: none"> <li>STF/YOSE Co-Chairs: <i>Rebecca Johnson, Jim Junette, Dan Buckley</i> (10 mins)</li> <li>SQF/SEKI Co-Chairs: <i>Angel Prieto, Christy Brigham</i> (10 mins)</li> <li>SoCal Collaboration Co-Chairs: <i>Len Nielson, Terri Thomas, Randy Striplin</i> (10 mins)</li> </ul> Reactions from agencies— <ul style="list-style-type: none"> <li>CAL FIRE rep: <i>Helge Eng</i> (10 mins)</li> <li>USFS rep: <i>Tony Scardina</i> (10 mins)</li> <li>NPS rep: <i>William Kaage</i> (10 mins)</li> </ul> Moderated discussion among Co-Chairs, Agency Reps (25 mins)		
3:15–4:00p	<b>Closing Talk</b> Moderator: Jerry Mitchell Introduction of speaker by moderator (5 mins)  <b>“What’s Next? Wildfire in California’s New Climate Reality”</b> Keynote speaker: <i>Scott Stephens</i> , Professor of Fire Science, UC Berkeley (25 mins)  Past management and climate change are impacting wildfires in California forests. While it is difficult to partition these factors in terms of producing current wildfire effects, management actions can be taken today to increase forest resilience in these ecosystems. Challenges remain regarding increasing pace and scale of appropriate restoration treatments but there is hope if we move decisively.  Questions from moderator (15 mins)		

guided through project collaboration and the development process for projects in San Diego and San Bernardino. The projects were chosen to demonstrate and learn from the barriers

to success of these two projects, and how to overcome those obstacles. The knowledge gained and shared from these project collaborations was used to guide others on their own projects.

The working sessions were centered around project implementation and development for fuel reduction to meet California's goal of one million acres treated annually across private, tribal, state, and federal land partnerships. These collaboration projects are California's paradigm shift to create a more resistant forest through resiliency and restoration.

### **Perspectives on workshop effectiveness, afterwards**

Fire Management 24/7/365 was planned as an outcomes-focused, multi-agency, interdisciplinary workshop, with aims to move the needle toward more collaborative prescribed fire and fuels treatments in California. The after-action review suggested that participants were pleased with the results and optimistic about working together to complete needed planning and to execute projects. In some cases, project co-leads asked if GWS facilitators could remain engaged as long as needed to help advance the project.

Originally scheduled for April 2020 as an in-person experience, the workshop was rescheduled because of COVID-19 as a hybrid in-person/virtual event. However, the severity of the pandemic made it necessary to change it a second time: to a completely virtual event. Admittedly, the steering committee considered canceling, but partner agencies asked that it not be, because of the importance of the projects and the need to "get the ball rolling" on collaboration approaches. So the workshop was conducted. The after-action review concluded that the workshop was successful, even as conducted virtually.

### **Follow-up by GWS**

As mentioned, several of the project co-leads asked if GWS could remain engaged in various capacities, some for facilitation and helping prospective partners break down barriers. However, true follow-up would focus on the outcomes achieved.

The GWS may seek funding to go onsite to document project execution and to interview participants before and after the projects, to determine whether

the objectives were achieved, and determine what contributors learned for use on future collaborative projects. With this documentation, a follow-up workshop could also be conducted to help the partners plan better outcomes (projects) and for the GWS to target a larger range of audiences as needed to accelerate project work. (Originally, the target audience included college students, professionals early in their careers, non-governmental organizations, and the public, including fire-safe councils and other public partners).

### **A possible GWS template for helping members and agencies address issues?**

In the past few years, GWS members have been constrained by agency limits on conference attendance and even travel. The GWS staff and board have assessed and considered numerous options/alternatives for meeting the needs of GWS members. The approach used in the Fire Management 24/7/365 Workshop could be a good option moving forward, even after the pandemic, because of the focus on outcomes. It could be tailored to helping members address any number of issues that are important in parks and protected areas. One issue, already suggested for a future workshop: visitor use and carrying capacity.

### **Acknowledgments**

The members of the workshop Steering Committee were myself as chair, Terri Thomas (GWS), Tom Nichols (NPS, retired), Jan van Wagendonk (NPS, retired), Sarah Campe (Sierra Nevada Conservancy), Len Nielson (CAL FIRE), Eamon Engber (NPS), Jason Kuiken (USFS), Randy Striplin (USFS), Dan Buckley (NPS), Christy Brigham (NPS), Joe Gonzales (USFS), Erik Torres (NPS), Angel Prieto (USFS), John Ziegler (NPS), Kevin Soland (Resource Conservation District of Greater San Diego County), Beck Johnson (USFS), Jim Junette (USFS), Christina Barba (USFS), and Landin Ballard (NPS). Dave Harmon and Emily Dekker-Fiala from the GWS executive office staffed the event. Thank you to all who attended and contributed to Fire Management 24/7/365.



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### On the cover of this issue

A montage of images from [One Tam](#), a collaborative partnership to manage the landscape of Mount Tamalpais in California, along with one from Alcatraz Island in Golden Gate National Recreation Area.

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PAUL MYERS / GOLDEN GATE PARKS CONSERVANCY  
THIRD ROW PAUL MYERS / GOLDEN GATE PARKS CONSERVANCY (BOTH PHOTOS)  
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