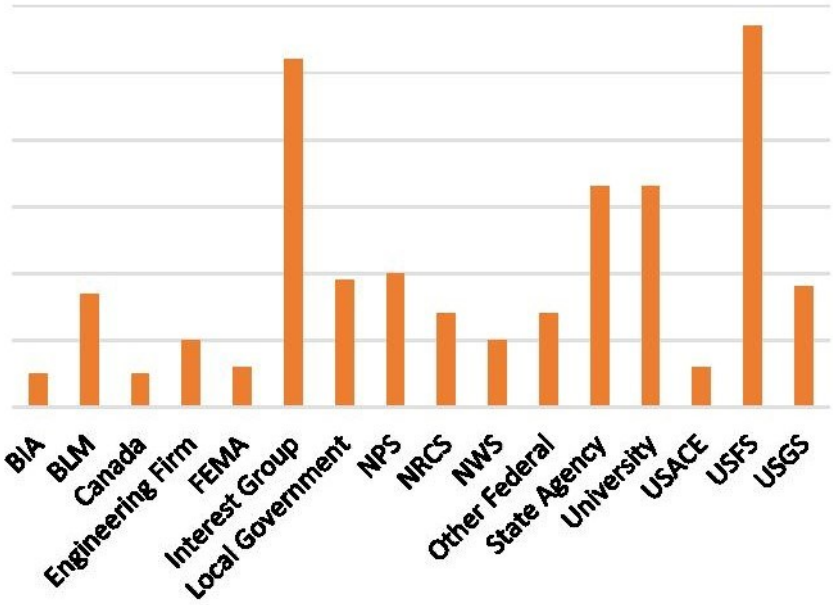
Post-Fire Science Webinar Highlights
May 19– 20, 2020

COCO
COALITIONS & COLLABORATIVES,INC

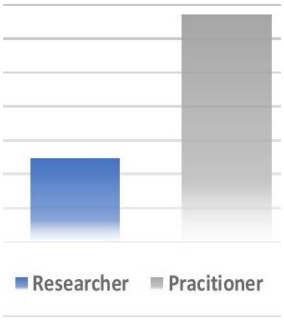
Over 250 attendees joined the discussion of the current state of post-fire science and needs for future science with researchers and agency representatives.

Information for this report is gathered from presentations and polling of the audience during the sessions.



Attendees largely represented Federal Agencies, led by USFS, NPS, BLM and NRCS. State and local agencies were represented, as well as non-profit watershed, fire, and conservation groups.

Do you consider yourself a researcher (creator) or a practitioner (user) of post -fire science?



Science Needs Panel -
Jeremy Lancaster – CA Geological Survey
David Callery – USFS, BAER
Cara Farr – USFS, BAER
Katherine Rowden – NOAA/NWS
Don Lindsay – CA Geological Survey
Stephen Brown - USACE

Where do you feel "blind" about post-fire hazards?
-Social science for effective communication of pre- and post-fire hazards.
-Understanding and prediction of run off and debris flows.
-Multi-year monitoring and risk mitigation for evolution of watershed.
-Tools for the immediate response, before BAER and other evaluation.
-Better prediction tools for impacts of precipitation events.
-Coordination with communities and various responding agencies.
-Experienced on-the-ground checks of models and prediction tools.
-Accurate information on alluvial fans and recognition of hazard.
-Hazard delineation beyond FEMA Flood Plan Maps.

What is the #1 priority for the panel?
-Complete model data that is ready to use (there are often holes) when an emergency happens.
-Being able to see all the rainfall and having better science on thresholds.
-Better technology to share post-fire data.
-Precipitation patterns and event probabilities to make predictions of runoff response more accurate.
-Research advancements in debris flow modeling for risk mapping that can be employed rapidly after fire.
-From a pre-fire planning perspective, mapping to address the lack of hazard recognition.
-Advancement in predicting post-fire runoff; develop a hydrograph for rainfall events pre- and post-fire.
-Monitoring recovery rates.
-Decision support tools and models to help us to determine values are at risk.

For all attendees: **Three words or phrases to describe your post-fire challenges.**

Science Research Panel -
Pete Robichaud – USFS Rocky Mtn Research Station
Paul Steblin – USGS
Laura Myers – Univ of Alabama
Sheila Murphy – USGS
Brendan Murphy – Univ of Utah
Jason Kean – USGS
Nina Oakley – CW3E/UCSD/SIO

What are the limitations to research progress?
-Funding for long term monitoring and reporting.
-Uncertainty in factors impacting recovery, including climate change.
-Pre-fire severity modeling.
-Post-fire hydrologic response and debris flow modeling.
-Communication of hazard, both medium and message for understanding and prompting action.
-Higher resolution in burn severity mapping.

For all attendees: **Two words to describe what we need in post-fire response.**

For all attendees: **What other aspects of post-fire science would you like to see researchers address?**

Some of the preliminary insights and takeaways from the conference were:

There is great interest in post-fire issues and a desire for similar conferences to keep the conversation going (perhaps covering additional post-fire topics such as water quality, soils, revegetation).

Time for interpretation and application of scientific research was noted as the greatest barrier to use of science. This could potentially be resolved through novel methods of communicating science including webinars, podcasts, or newsletters.

Communication related to post-fire issues (specifically between whom is unclear) stands out as one of the greatest post-fire challenges.

Coordination across agencies in post-fire response is also major challenge.

Assessment and communication of uncertainty around post-fire hazards is a strongly recommended research focus area.

Downstream impacts, runout, and inundation associated with post-fire flash floods and debris flows were also noted as recommended research focus areas.

Climate change and its effects on vegetation and fire characteristics as well as rainfall intensity is also a recommended research focus area.

Coalitions and Collaboratives, Inc. is committed to facilitating the conversation on post-fire needs through webinar series, reports and one-stop site for post-fire recovery.

https://aftertheflames.com/

https://co-co.org/

For all attendees: What mechanisms would you like to see used more frequently for communicating post-fire science?