

Pre-Fire Planning/Work								
	Effectiveness of fuel treatments							
	Simple models for practitioners to use during PRE FIRE assessments that look at vulnerabilities (most are very challenging for practitioners)							
	A complete comparison of modelling accuracy from pre to post fire impacts.							
	Pre-fire assessments that can provide potential risk ahead of time.							
	If there are preemitive mitigation efforts that can be out into place to lessen post fire impacts.							
	More work expanding on simulating burn severity for use in pre-fire assessments							
	Easy mitigations for private property							
	Simple post fire risk mapping for use before fires							
	Pre fire impact assessment							
	+1 to comment on pre fire engagement							
	Pre-fire risk assessments using publicly available geodata and GIS tools.							
	Pre-fire analysis, including proactive management of invasive species, and analysis of the efficacy of that management in light of fire/post-fire information.							
	Pre-fire planning and prep for post-fire response							
	cost savings/economic benefits of fuels treatment							
	How do these events occur and/or repeat over longer time periods.							
	Fire Monitoring Handbook FMH update/revision							
	Identification of high risk areas							
Modeling								
	Fuel models							
	Modeling post fire response in more humid climates							
	Additional research on reburn effects on soil properties and water quality/availability.							



	Relationship between fire intensity and post-fire DF susceptibility.							
	Model refinements for geographic areas							
Short-Term Response								
	Rapid risk assessment procedures that can be implemented by broader disciplines							
	Updates to effectiveness of post fire treatments							
	impacts of heavy equipment usage in post-fire zones - both for harvesting, debris removal, and restoration/reforestation activities							
	What can firefighters do/avoid doing while they're out there there on the fire and just after?							
Region specific research								
	Hawaii and Pacific-specific post fire science.							
	Regional climate influence such as NA monsoon							
	Climate-adapted reforestation							
Infiltration								
	Post fire ground cover and infiltration database							
	More refined infiltration adjustment guidance for post-fire conditions.							
Technology								
	AI methods to harvest information (i.e. human-readable text that is not necessarily immediately "understandable" by machines) and to integrate that information for fire science research							
	How to balance High Tech with High Touch?							
Bulking/Debris Flows/Erosion								
	Bulking rates and model							
	Sediment bulking							
	Sediment bulking and routing							
	Bulking of flood flows							
	Importance of soil disaggregation depth on debris flow initiation							
	Bulking factors for runoff							

	Bulking rates							
	Mapping of pre fire tendency toward debris flow							
	In-channel erosion-transport-deposition processes incorporated in erosion models							
	Bulking							
	Bulking factor criteria							
	Debris and sediment flow rates and impacts on downstream coastal areas and waters							
	Regional variations in post fire debris flow initiation.							
	Mapping for Pre-Fire debris flow levels so you have a benchmark.							
	flash flood thresholds in combination with debris flow thresholds							
	Wind erosion effect on vegetation recovery and health impact on air and water							
Soil								
	soil functional and productivity recovery							
	Research on soil effects from reburn.							
	Studying pre-fire dry soil repellency compared to post-fire repellency, therefore a better understanding of how the soil conditions changed.							
	How microbial recovery impacts soil and vegetation recovery							
Sharing Information								
	How to collect information that can be fed upward?							
	Turn research into a product for BAER Teams							
	Potential integration of postfire science with JFSP Fire Science Exchange Network							
	Practitioner information sharing							
	increased open source easy models for lower level technician types... not every district has "academics"							
	Better science delivery to the practioners							

More meaningful engagement with practitioners throughout the research process - not just as stakeholders but as meaningful partners								
How can we set up a reporting system for event and non-events? Something similar to the CMOR citizen drought impact reporting.								
Trainings or user friendly models to predict erosion rates and downslope sedimentation vulnerabilities in steep coastal slopes								
Interpreting the input and output accuracies in the results								
Getting the observation data (gauge,radar,stream) to the NWS into the AWIPS warning computer system.								
Scalability of projects, upland treatment effectiveness in different ecotypes, and how to collaborate better in such a tough hierarchical structure with few voices								
Does text onboarding help with dissemination?								
Normalized schema for aggregate modeling.								
Catalogue of storm events that trigger a debris flow event								
inventory of storms of record for Forests, inventory of damaging storm that trigger post-fire events								
Community Engagement								
Engaging citizen scientists								
Outreach education for the public								
Communication tools								
Messaging content and dissemination								
More messaging/communication studies with practical use								
Communication with local long term recovery groups.								
How to better utilize local agencies and organizations In post fire planning, burn assessment, and implementation.								
Community Action								
political / social science around changing local regulations / zoning to get people out of the high risk areas								

	Supporting locals after the BAER teams leave. Tools to help managers make calls post fire, second year, third year, etc. most are guessing at best... this leads to many not leaving their homes after multiple calls to evacuate....							
	Development in high- and medium-risk zones (social science and geography?)							
	Impacts/consequences to human and other bio systems. How can those systems affect the science (e.g., development that does/not plan for wildfire and Post-fire vulnerabilities)							
	+1 to supporting locals after Baer leaves							
	USACE involvement in BAER team deployments.							
	I'd like to see researchers on the BAER Teams often to see/help the rapid assessment process							
Values at Risk								
	Values at risk decision support tools							
	Monetizing values at risk							
	Effects to cultural resources, particularly different types							
Climate change								
	climate change and how post fire response may differ in places where there have not historically been many fires (ie. Alaska and the western PNW)							
	changes in vegetation type w/ changes in climate							
	Better forecast modeling in light of climate change and modified likelihood of debris-flow initiating precipitation events							
Hydrology/Precip								
	RAINFALL THRESHOLDS							
	Density of rain and stream gages is very low in many Forests.							
	Rainfall thresholds and identifying recovery differences across California							
	Thresholds							
	Post fire flood flow estimation improvement							

	Improving post fire hydrology prediction							
	Changes in hydrology - streamflows that are not necessarily going to be a flash flood/debris flow issue, but may affect runoff characteristics that could still impact river flooding and modeling.							
	2nd + year precip thresholds							
	Use of lightening strike data to map probability of summer thunderstorms							
	Recovery/ Monitoring							
	Riparian area protections and recovery							
	guidance on evaluating recovery in the field							
	More on effectiveness of practices in reducing flood/DF and in speeding recovery of ecosystem services							
	How does drought impact recovery							
	Post-fire ecosystem recovery							
	Mapping post fire recovery across broad areas							
	How best to monitor invasive and noxious weed infestations post-fire and how different species respond to different fire conditions in different parts of the country.							
	Effectiveness of post fire erosion mitigation measures							
	Types of monitoring methods in post-fire recovery environments.							
	Native seeding.							
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	Seeding with fast growing non native sterile species.							
	What protection structures work best to protect the alluvial fan.							
	Effectiveness of inexpensive treatments at stream crossings							
	Cost/ benefit comparisons of suppression vs. rehabilitation.							
	How climate and invasive spp affect post fire effects and vegetation recovery							

Post-Fire Science Needs Symposium
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What other aspects of post-fire science would
you like to see researchers address?

	Separating rapid risk assessment from longer term modeling and design							
	Interaction of post fire landscapes and insect and disease susceptibility and spread in the lo big term, and how that intersects with recovery							
	Better burn severity data developed by fire ecologists							