

## Tubbs FIRE Watershed Emergency Response Team (WERT)



### Sonoma Napa and Mendocino Fire Summary

Russian River Watershed – Tubbs, Pocket, Redwood and Nuns Fire  
- 87,751 acres burned in the 950,365 acre watershed (9%)

San Pablo Bay Watershed - Tubbs, Nuns and Atlas Fires  
- 83,880 acres burned in the 784,983 acre watershed (10%)  
- Napa River – 28.5%  
- Sonoma Creek – 43.3%  
- Carneros – 30.9%

Upper Eel River Watershed - Redwood  
-4,019 acres burned in the 453,810 acre watershed (1%)

### Task

- A rapid assessment of post-fire geologic and hydrologic hazards to life and safety (i.e., collectively known as “Values-at-Risk” or VARs) for private lands affected by the 2017 Tubbs Fire

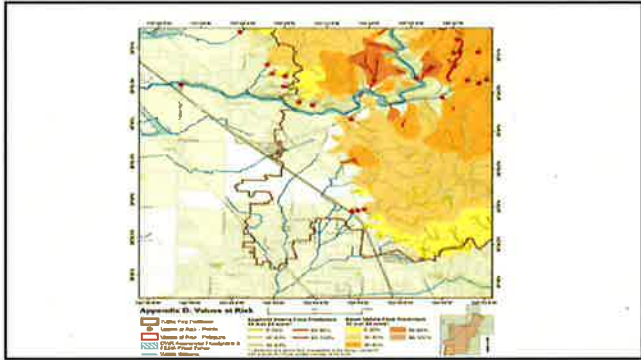
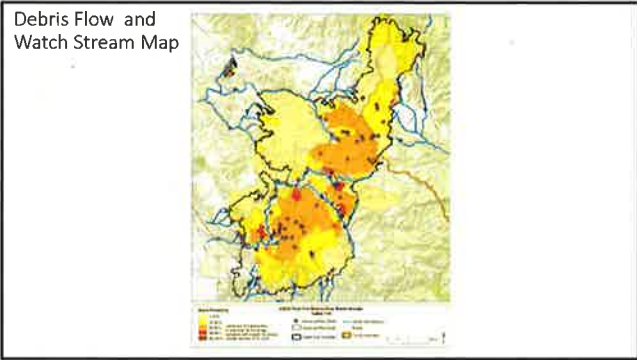
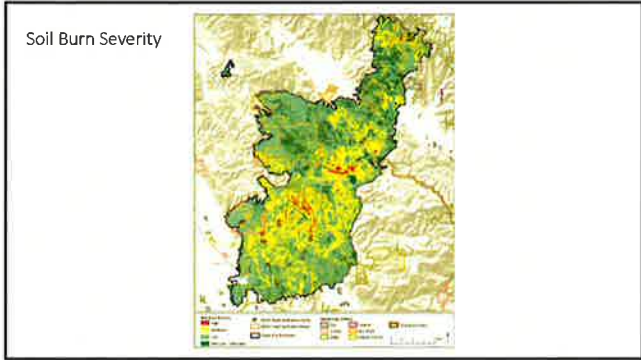
### Objective

Primary objectives for the WERT are to conduct a rapid preliminary assessment to:

- Identify threats to public health or safety from land sliding, debris flows, flooding, erosion, road hazards, and other fire-related problems.
- Develop preliminary emergency protection measures needed to avoid life-safety threats.

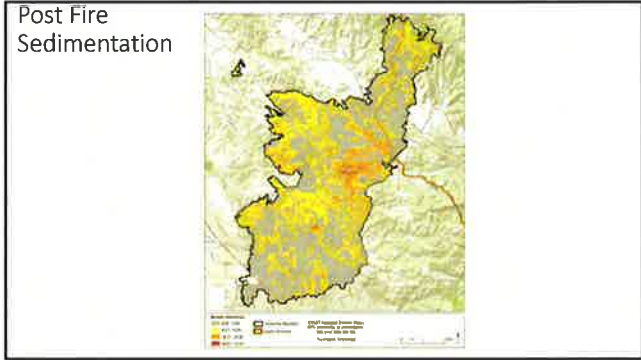
### Work Products – WERT Report

- Hazardous Minerals
- Soil Burn Severity Map
- Debris Flow Model Results and Map
  - Potential for drainages to produce debris flows as a result of the fire
  - Watch Streams
- Flood Flow Model Results
  - Potential for Increase In floods as a result of the fire
- Pre and Post Fire Sedimentation Results
- Observations – Values at Risk
- General Recommendations



Post Fire Flood Flow

Point / Watershed Name	Pre Fire Discharge	Post Fire Discharge	% Increase	Point / Watershed Name	Pre Fire Discharge	Post Fire Discharge	% Increase
	Q10 (cfs)	Q10 (cfs)			Q10 (cfs)	Q10 (cfs)	
Hindall Reservoir Inlet	917	358	12	Kettle Creek	718	880	24
Messum Creek at FootM/Bart	770	868	13	Lower/Messum Creek	1,115	1368	23
Carroll Creek at Hwy 20	1,158	1,778	5	Upper Creek	1,887	3000	58
Carriage Wash	3,483	3,788	4	Upper Mark West Creek	5,873	9798	6
Finella Reservoir	58	118	77	North West Springs	6,218	7405	20
Shoemaker Reservoir	788	224	18	Lower Mark West Creek	9,238	2901	23
Linda	898	554	48	North Branch Frisco Creek	385	464	26
Knob Creek	530	434	31	North Creek Reservoir	138	360	9
Mill Creek at Crata Road	436	762	87	Yellowcreek Creek	418	557	33
Pear Creek Reservoir	466	396	24	Middle Branch Frisco Creek	516	786	52
Hubb	505	343	9	Mill Creek	630	646	5
Hubb	505	367	36	South Branch Frisco Creek	721	1330	77
Rolling Creek	610	684	12	Frigo Creek at Frisco Valley Road	1,040	1,681	38
Upper Messum Creek	624	837	34	Lower Frisco Creek	1,031	1543	37

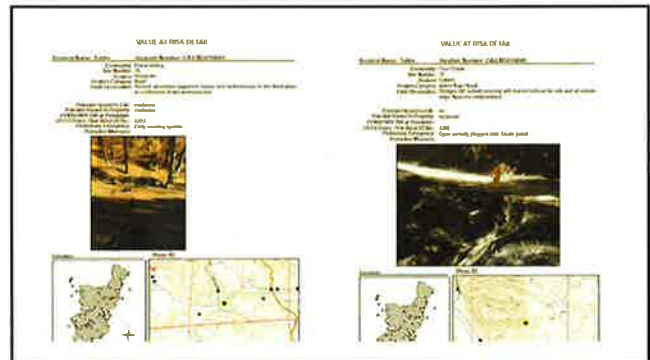


- General Recommendations
- Install weather radar on Sonoma Mountain to overcome the current radar shadow for the region and inform an early warning system to homeowners.
  - Review of temporary house locations by licensed professionals.
  - Improve drainage to unimproved roads. Perform storm patrols and monitor road drainage infrastructure.
  - Remove vegetation and loose woody debris around drainage structures and bridges.
  - The burned debris from structures or vehicles should either be properly disposed of or mitigations put in place to prevent run-off from burned sites to enter a watercourse.
  - Homes Located in or near the FEMA 100 Year Floodplain, DWR Awareness Floodplain, or USGS Watchstream downstream of the fire should be made aware of the increased risk of flooding.
  - Where vegetation burned that was growing on earthen dams, landowners should contact the appropriate licensed professional to inspect the integrity of the dam.
  - Consider specific recommendation for VARs provided in Appendix C
  - Communicate findings

## Observations – Values at Risk (VAR)

### General Areas of concern

- Camp Newman
- Linda Lane



WERT Report will be available at  
<http://www.fire.ca.gov/communications/downloads/>

### Questions ?

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  - CGS – Patrick Brand – 707-576-2143 – [patrick.brand@conservation.ca.gov](mailto:patrick.brand@conservation.ca.gov)