GIS as a Tool
Before - During - After
Wildland Fire Event

Tule River Reservation

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California Vicinity

N
W
E
S

50 0 50 100 Miles

Tule River Environmental Program

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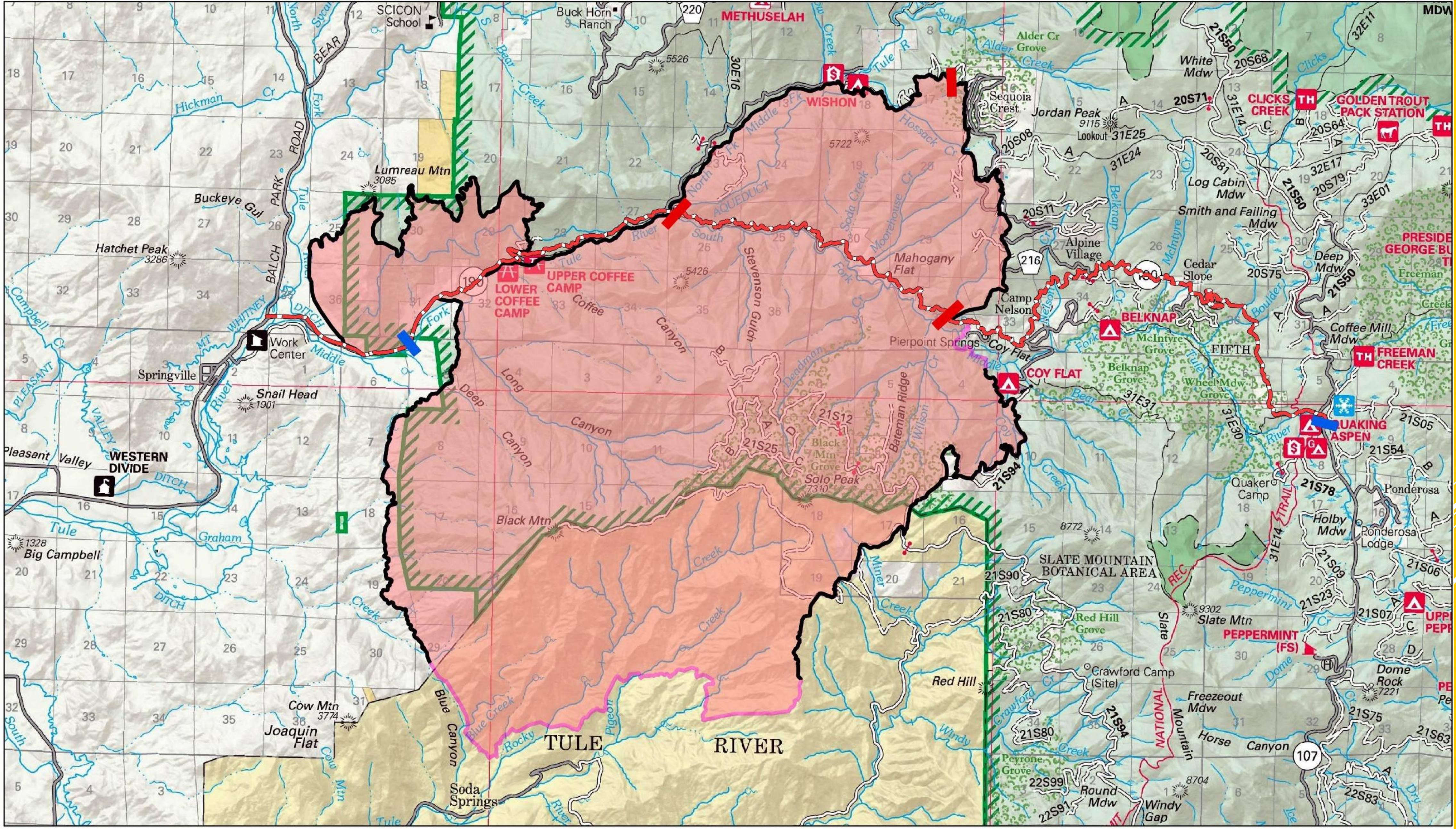
Reservation vs USFS lands Map

Tule River Reservation Resources

- 85 square miles
- 30+ miles river/streams
- SFTR watershed
- 16,000 acres Conifer Forest
- 5 Giant Sequoia Groves
- Rich in Cultural Resources-Yokuts Aboriginal Territory
- Variety of wildlife/plants, including Pacific Fisher, CA Condor & Tribal important species

- August 2017- Pier Fire started on USFS land, north of Reservation
- Fire reached and crossed the northern Reservation Boundary within a week
- Approximately 8,733 acres burned on Tule River Reservation
- Approximately 36,556 acres burned Total



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Closure Type	
Hard	Completed Line
Soft	Uncontrolled Fire Edge
Road Closed	Tule River Roads

Sequoia National Forest

Containment - 85%

Pier Fire

9/17/2017 36,556 Acres

Public Information

0 0.75 1.5 3 Miles

Tribal GIS Database, Pre-Fire

- Tribal Properties
- Surrounding Properties & Attributes
- Reservation Boundary & Attributes:

- Roads
- Watershed
- Cultural sites
- Vegetation types
- Homes
- Buildings
- Fuel breaks
- Fuels treatment areas

Significant Boundaries Map

Watershed Sample Points Map

TRIR Streams, Roads, Boundaries Map

Peaks, streams, roads Map

Tribal GIS Database, During Fire

- Assistance
- Support
- Resource Protection

VEGETATION

CULTURAL

H
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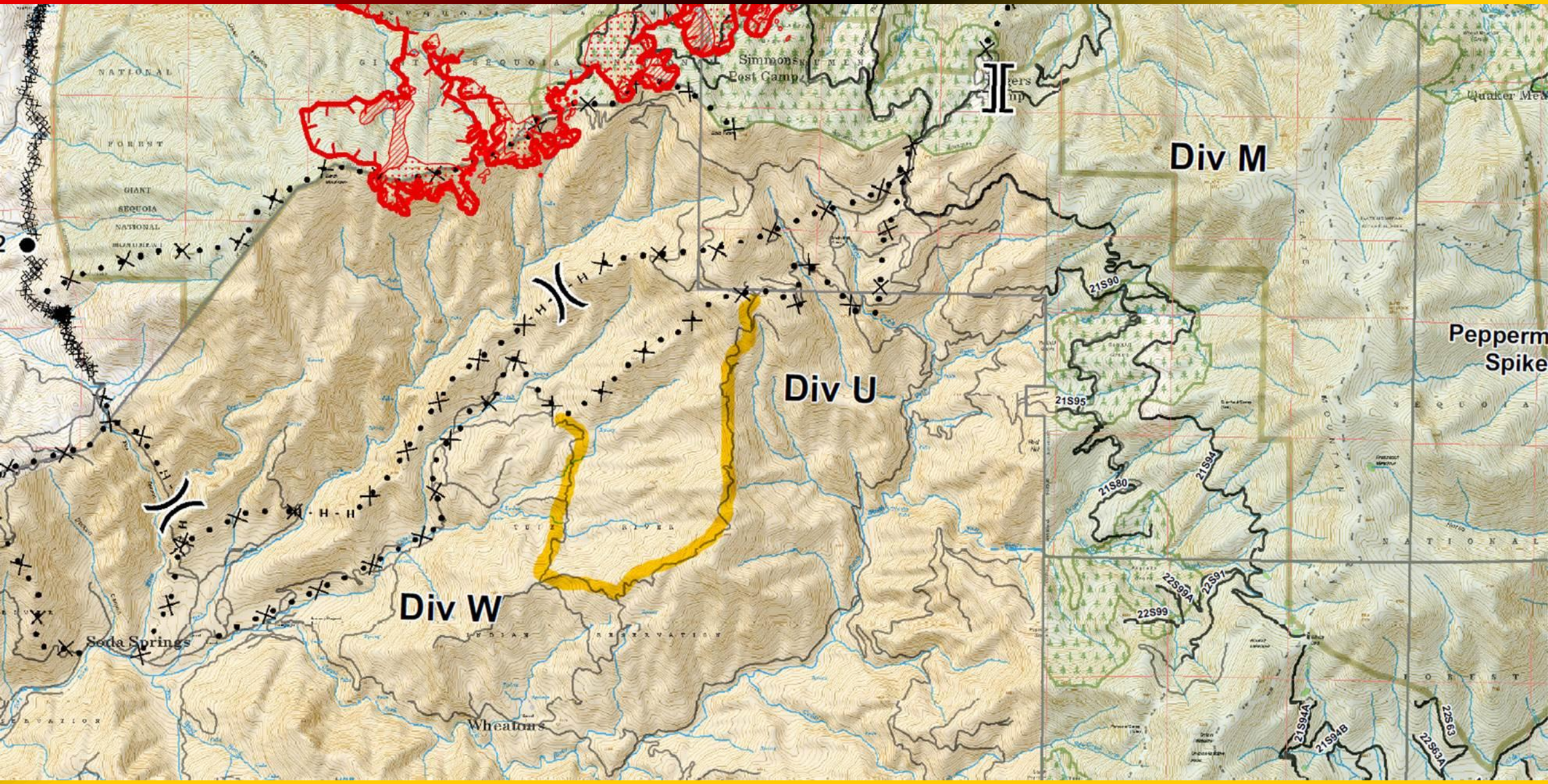
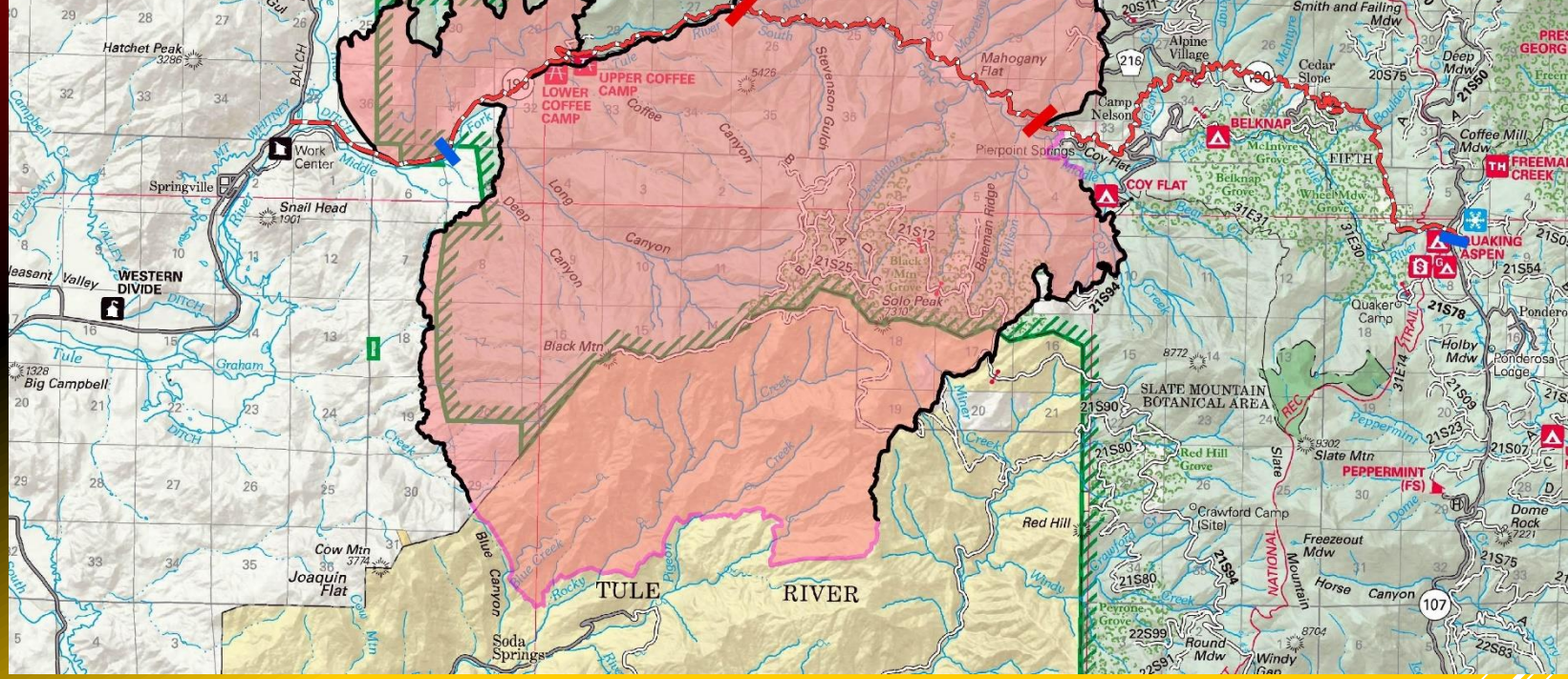
FUELS
-
ROADS


Div M
Div U
Div W
Pepperm
Spike
Simmons
Post Camp
Soda Springs
Wheatons
21S90
21S95
21S94
21S80
22S99A
22S91
22S99
21S94A
21S94B
22S63
22S63A

TRIR Topographic Map <here>



Tribal GIS database, Post-Fire

- Assessment
- Mitigation planning

  -Burn intensity
  -Tree Mortality
  -Treated Areas Comparison
  -Cultural sites impacted
  -Watershed impacts

Soil Burn Severity Map

Vegetation Mortality Map

Burn Severity vs Fuels Trmt Maps

Burn Severity/Fuels Trmt Overlay Map

Cultural Resources Map

Cultural Resources vs Burn Severity Map

LESSONS LEARNED

- Time/money spent inputting information into GIS database is invaluable
- Don’t wait until an emergency to get data uploaded or digitized
- Be prepared to share and receive data, as needed

Thank you!

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