

Fires and Floods, Oh My!



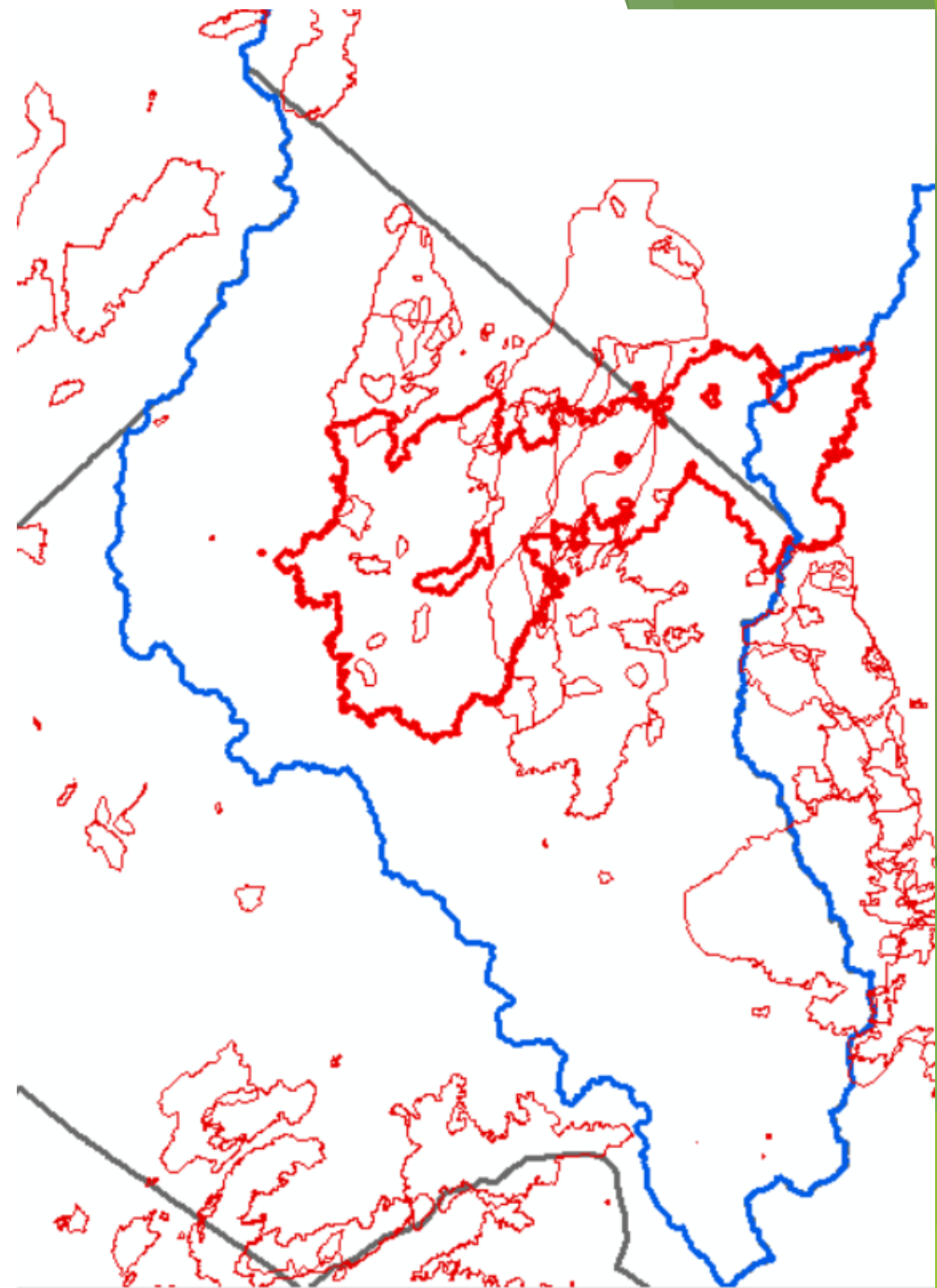
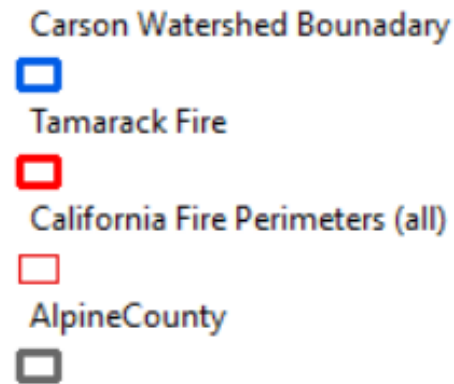
Clint Celio
Wildfire Projects Coordinator
Alpine County

Duncan Leao
Deputy District Ranger
USFS, Carson Ranger District



Fire History in the Upper Carson Watershed

- Acorn Fire 1987
- Washington Fire 2016
- Various Fires around Indian Creek

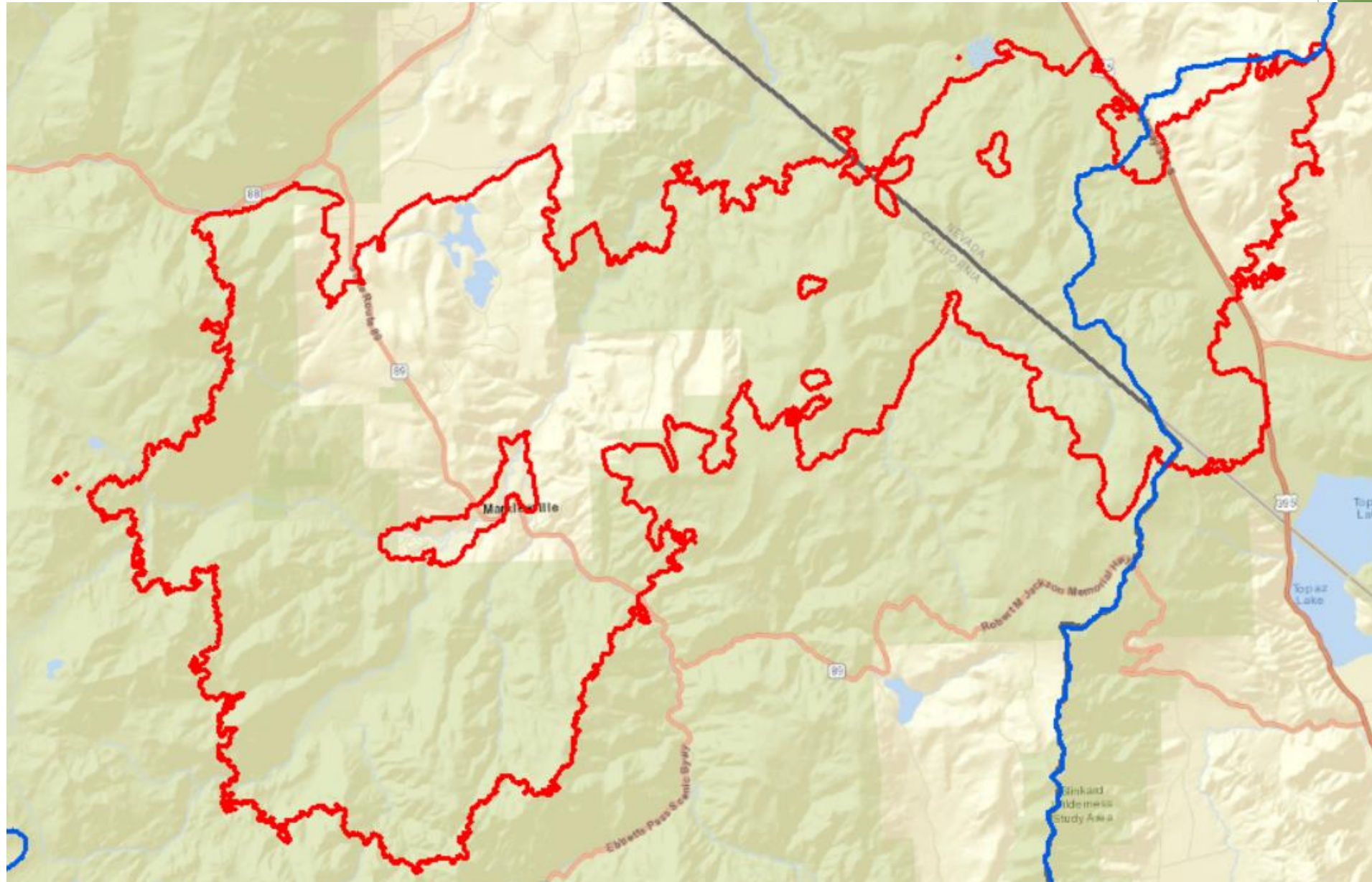


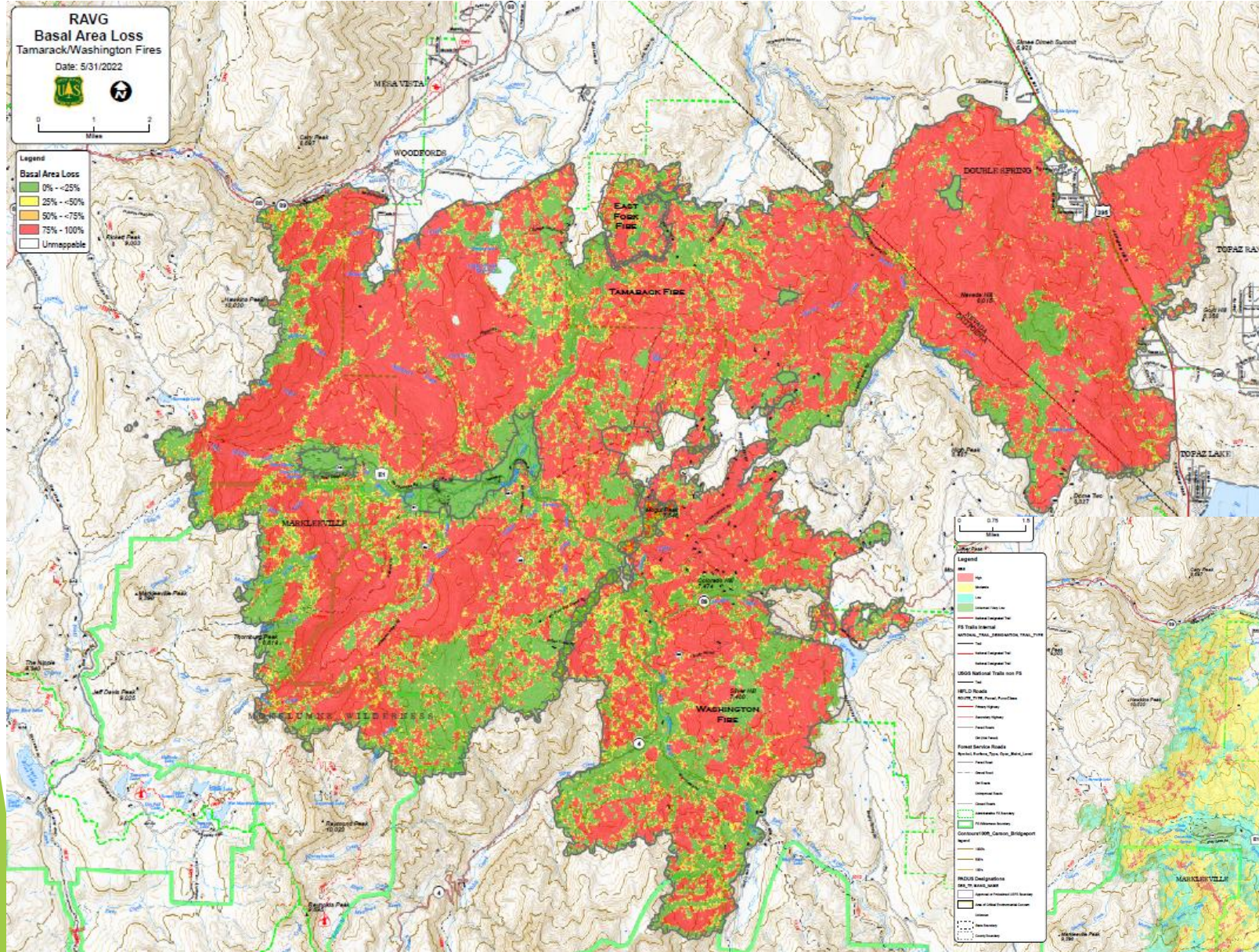
Tamarack Fire

- ▶ Started July 4, 2021 in the Mokelumne Wilderness
- ▶ Exploded July 16th, 2021
- ▶ Burned 60,000 acres across two states

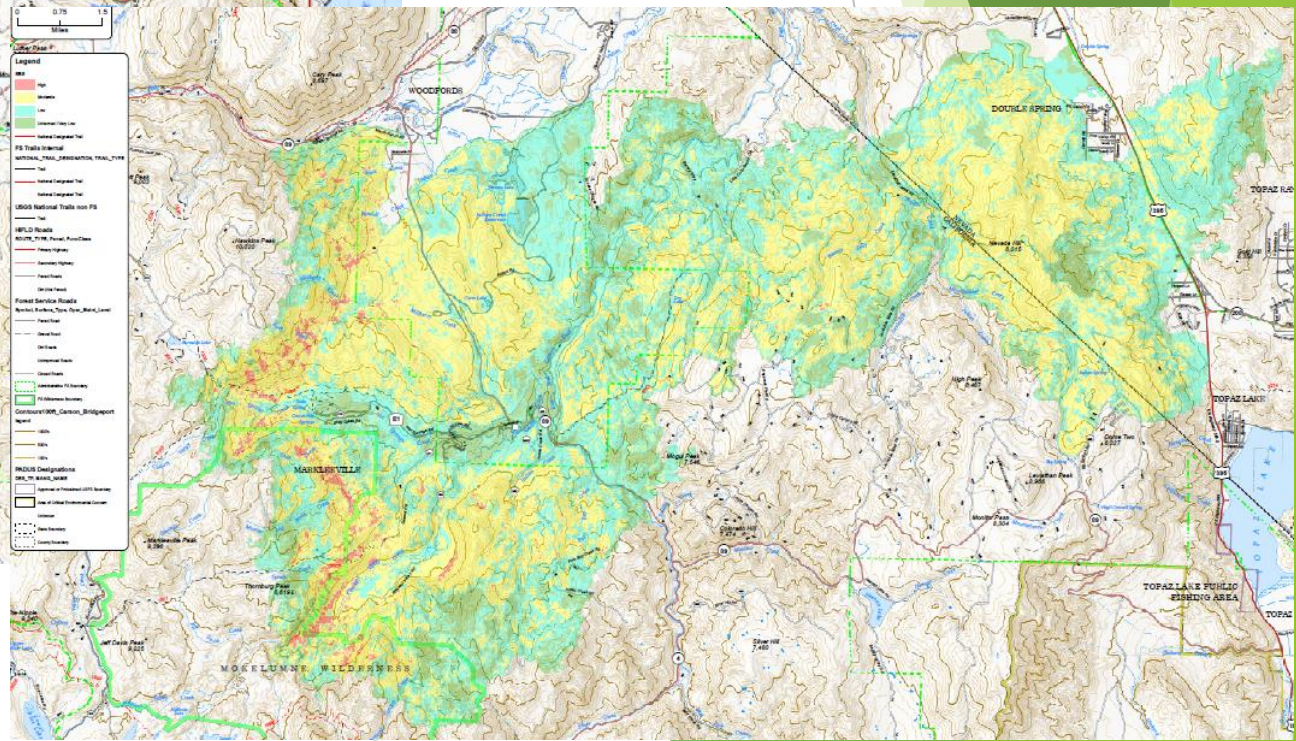


Tamarack Fire Perimeter Map





Tamarack
Soil Burn
Severity



Tamarack Vegetation Burn Severity



Severely Burned Areas

- Soil stabilization concerns

Projects to Address Hazard Trees



Regeneration Occurring in 2021

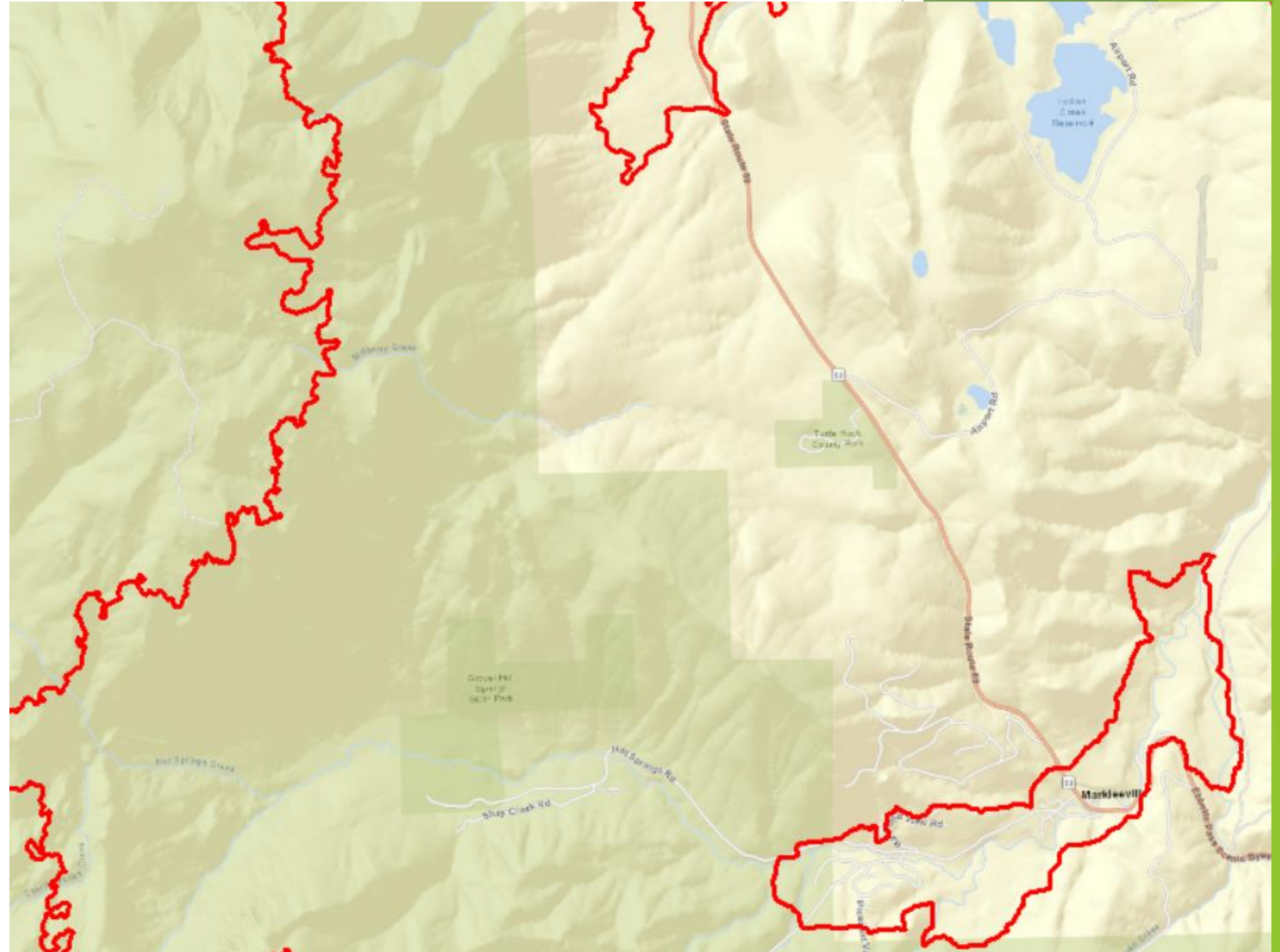


An aerial photograph showing a landscape after a forest fire. The left side of the image shows a hillside with sparse, dry vegetation and many dead, blackened tree trunks. The right side of the image is a darker, more dense forest. A large, semi-transparent green geometric shape, consisting of several overlapping triangles, is overlaid on the right side of the image. The text "October 2021" and "Week of Rain" is written in a bright green, sans-serif font over the darker forest area.

October 2021 Week of Rain

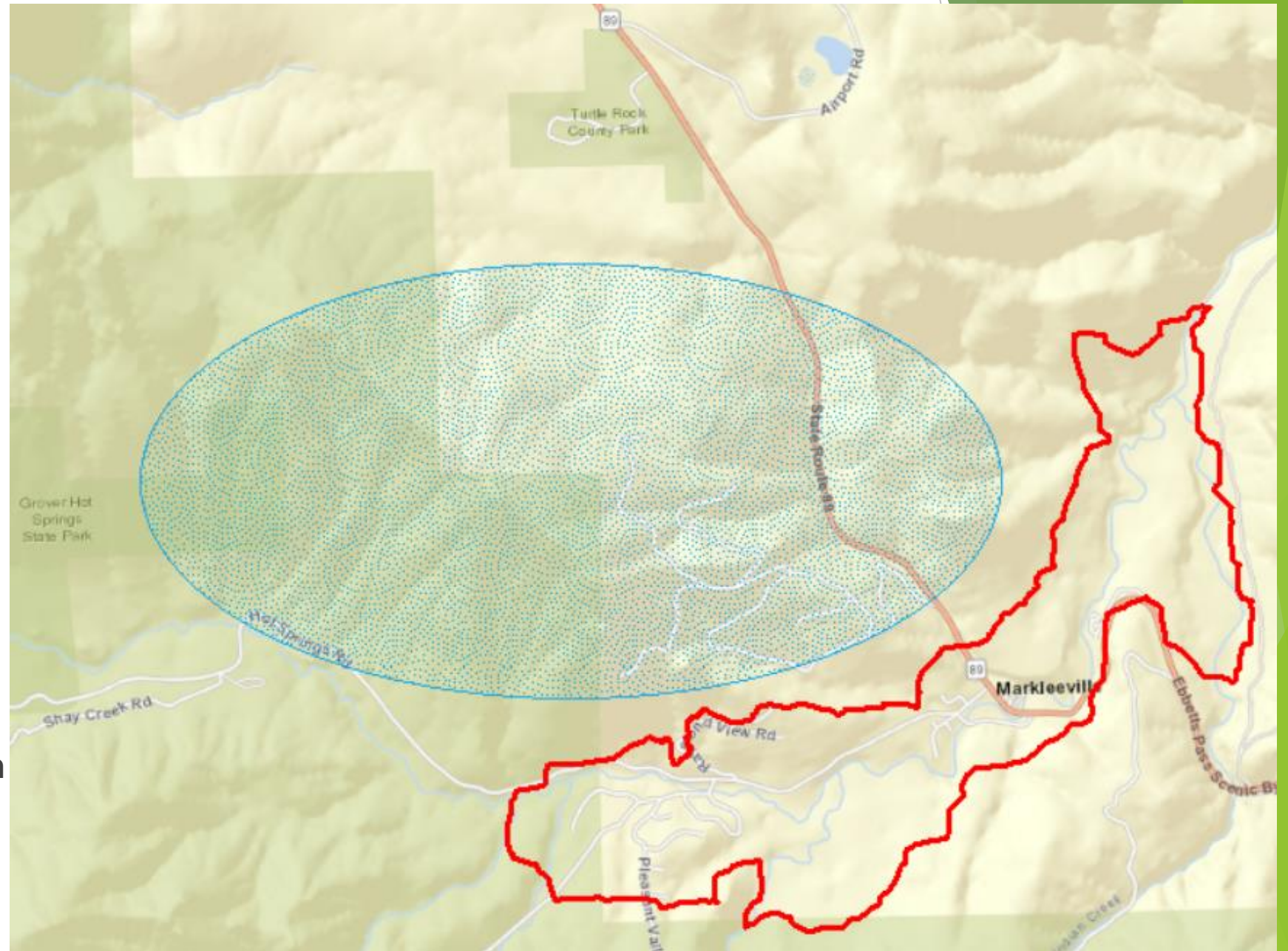
Millberry Creek Drainage

- ▶ Highest Area of Concern for flash flooding
- ▶ USFS models indicated there could be significant flows



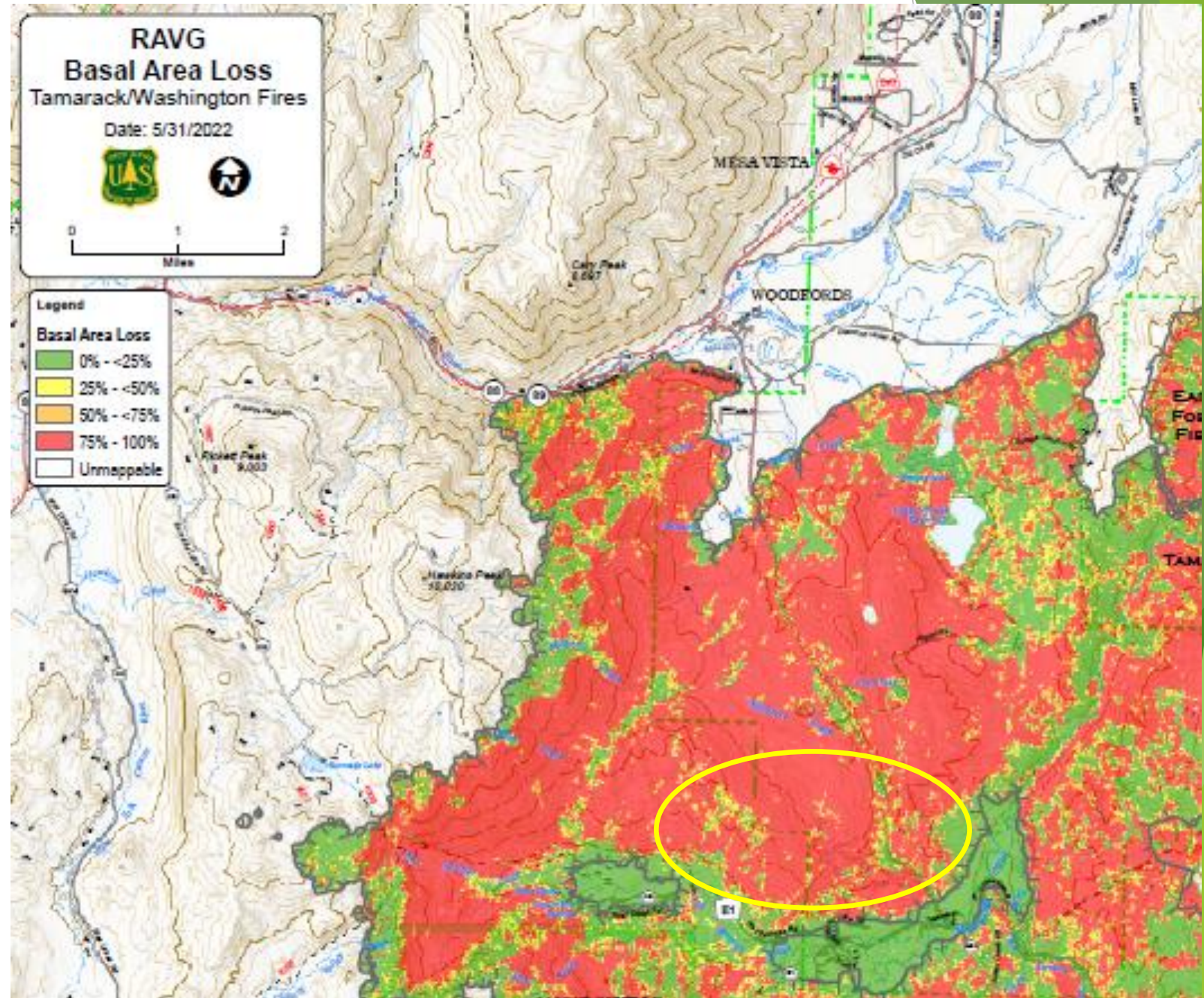
August 4, 2022 Summer Thunder storm

- ▶ Over 3 inches of rain in 90 minutes
- ▶ Once in 1400 year event
- ▶ Washed out culvert north of Markleeville and closed road for 2 weeks.

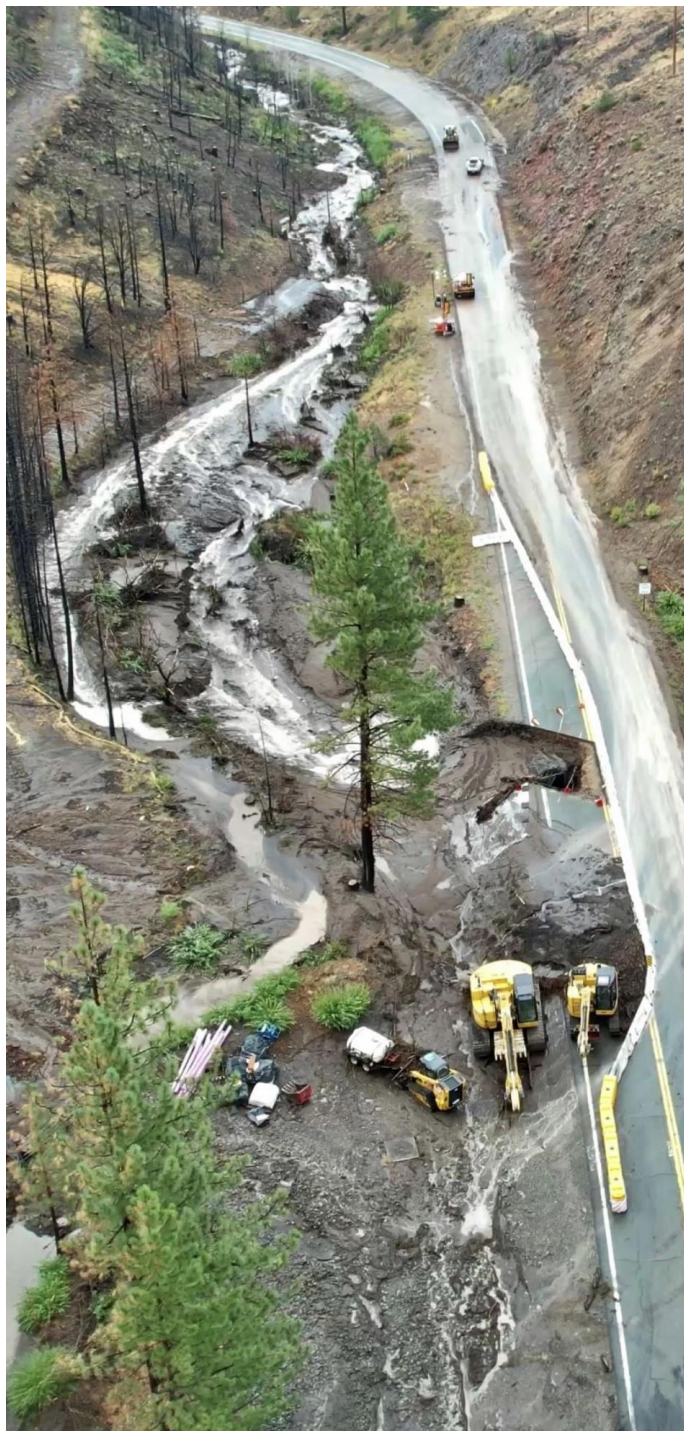


August 4, 2022 Summer Thunder storm

- ▶ Over 3 inches of rain in 90 minutes
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Markleeville Impacts









► April 2023

► July 2022



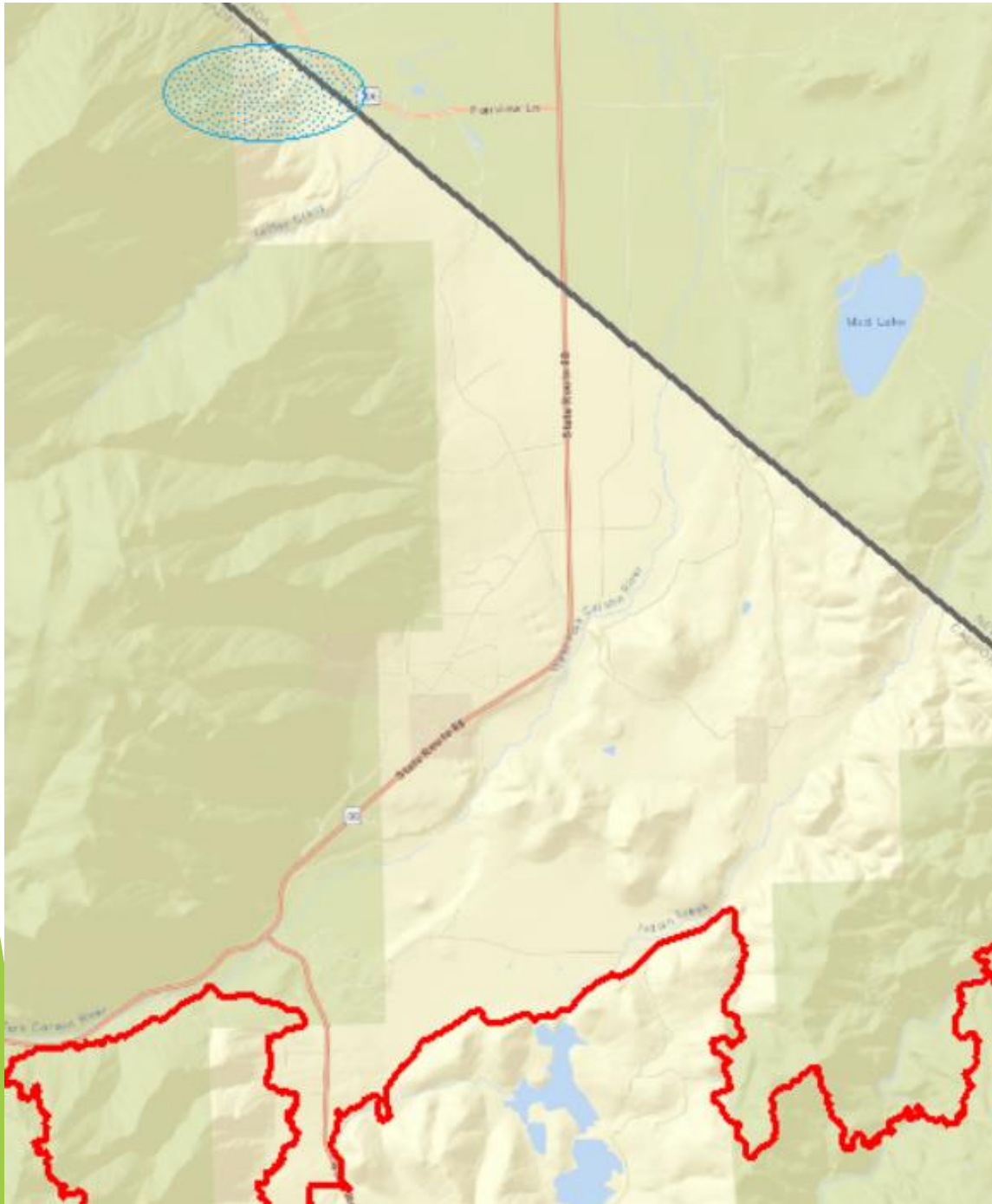


► April 2023

► July 2022



August 5th, 2021
Outside of Tamarack
Perimeter



Reducing Impacts

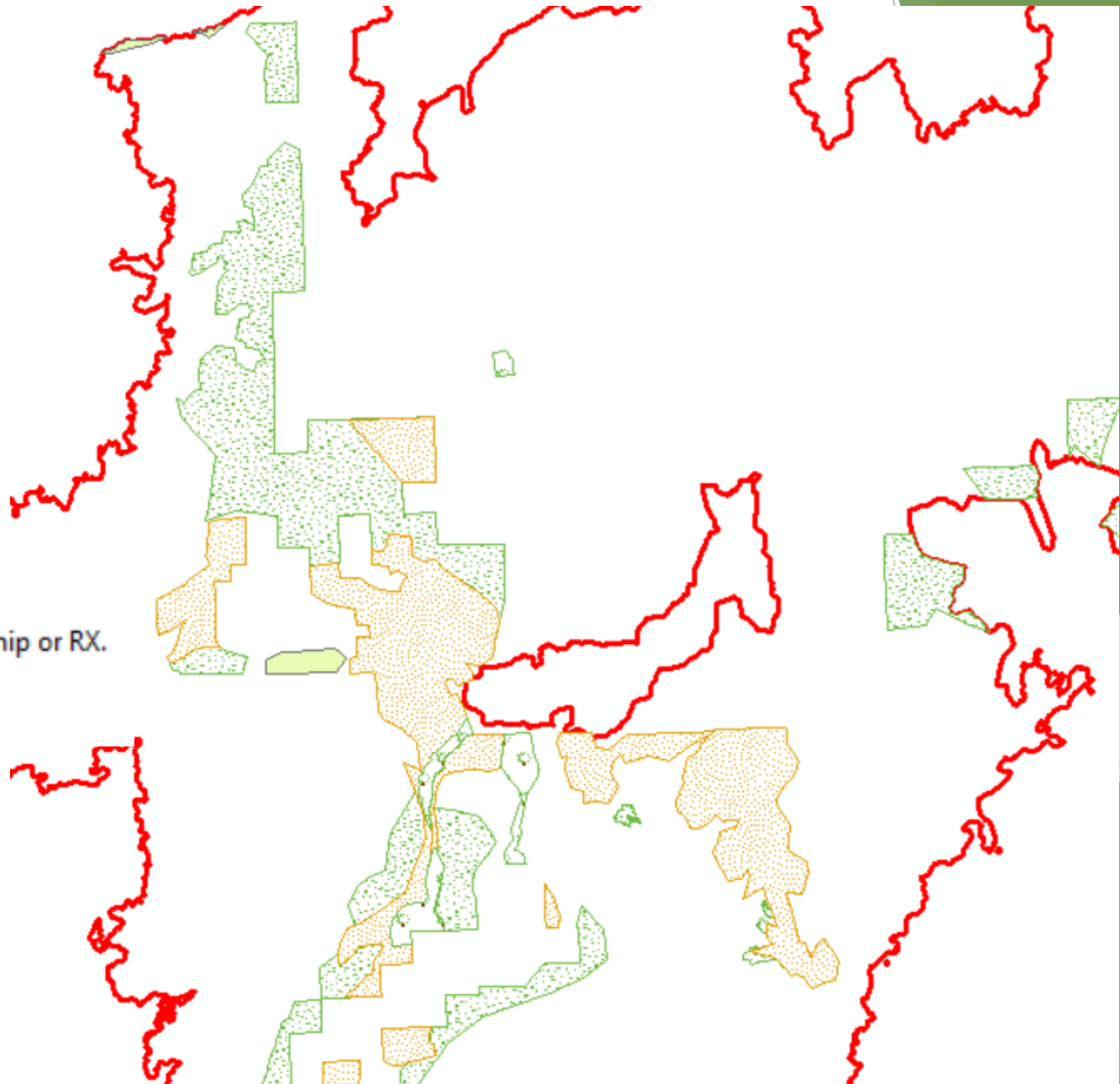
- ▶ Natural regeneration
- ▶ Chip distribution
- ▶ Contour falling
- ▶ Tree planting
- ▶ Aerial Seeding



Proposed USFS Projects

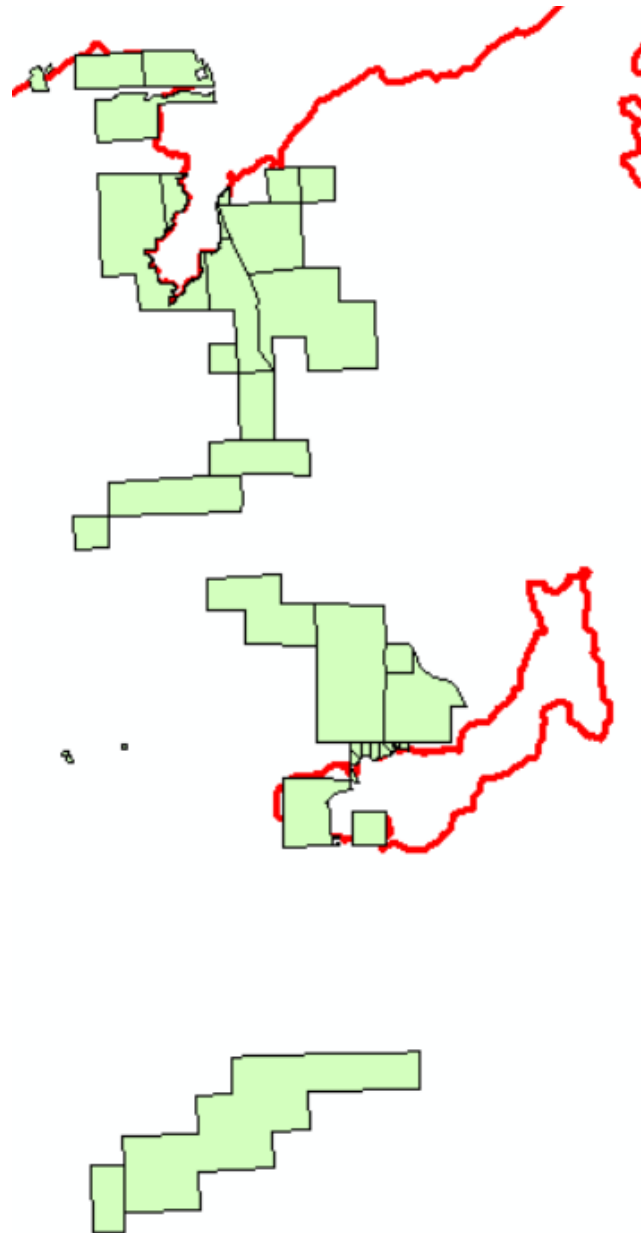
- USFS has proposed projects for biomass reorganization, reseeding and replanting

- Handwork. Cut and pile. Chip or RX.
- Mastication. If no access, Handwork. Cut and pile. Chip or RX.
- Reforestation - Tree planting
- Seeding. Aerial, Drone, Hand.




Proposed Restoration Projects on Private Land

- Will include prescriptions similar to USFS treatments





Emergency Forest Restoration Team (EFRT)

- ▶ Established to coordinate the efforts of various agencies and stakeholders in restoration activities
 - ▶ Facilitated through USDA grant for state and private forestry
 - ▶ Currently reviewing treatment targets and activities
- 



Thank You and
Questions!