Hirz Delta Fire

5 Year Erosion Risk Management Tool (ERMiT)

Shasta-Trinity National Forest
September 2018

Legend

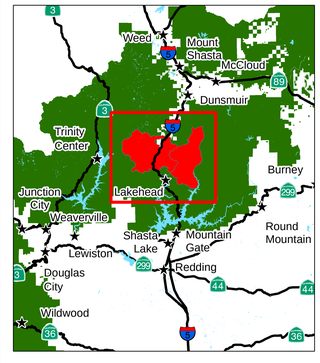
- Town
- Peak
- Major Highway
- Perennial Stream
- Tributary
- Water Body
- County Line
- Forest Service Lands
- Hirz Delta Fire 2018

5 Year ERMiT

- 0 - 5
- 5 - 10
- 10 - 20
- 20 - 40
- 40 - 105

N
W E
S

0 0.5 1 2
Miles



General risk and probabilities of debris flow, flooding and erosion hazards were evaluated by the US Forest Service BAER Team. Site Specific Risks were not evaluated in this assessment.

HirzDelta ERMiT Disclaimer: A 5-Year storm was modeled in ERMiT to determine if the estimated soil erosion for the fire area would affect soil productivity. For the 5-year event (20% probability); an estimated average 25 tons/acre of erosion may be produced for the Hirz Fire and 23 tons/acre for the Delta Fire (24 tons/acre combined). Although it is counterintuitive that the erosion rates are higher on the Hirz Fire while the burn severity is less, the Hirz Fire has steeper slopes which is a significant driver of erosion. It must be noted that ERMiT values are erosion rates and not sedimentation rates. For the Hirz Fire, much of soil material that is eroded will be filtered through unburned lower slopes and have less sediment input whereas the lower slopes of the Delta did burn and have less filtering capacity. It must also be noted that the erosion fire within the fire perimeter are higher than individual watersheds due to the watershed rates include unburned areas.