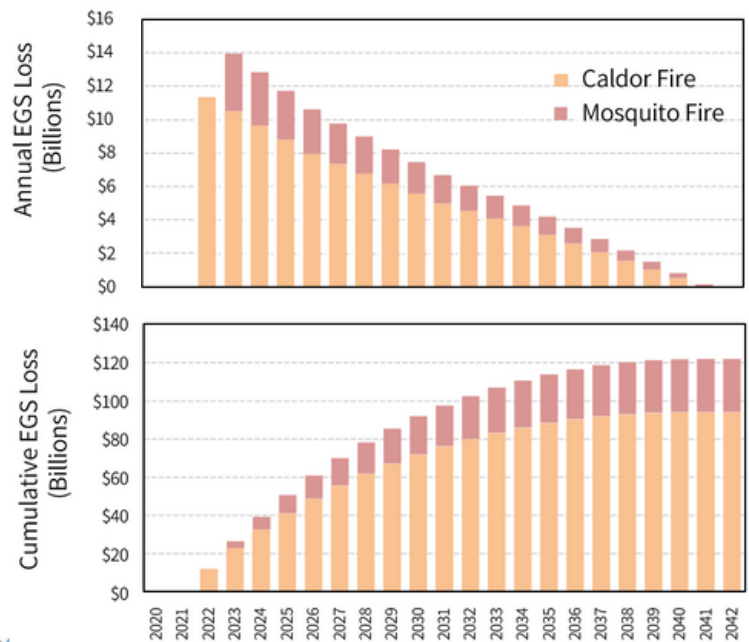


Beyond Property Damages from Wildfires Natural Capital Damages from the Caldor and Mosquito Fires

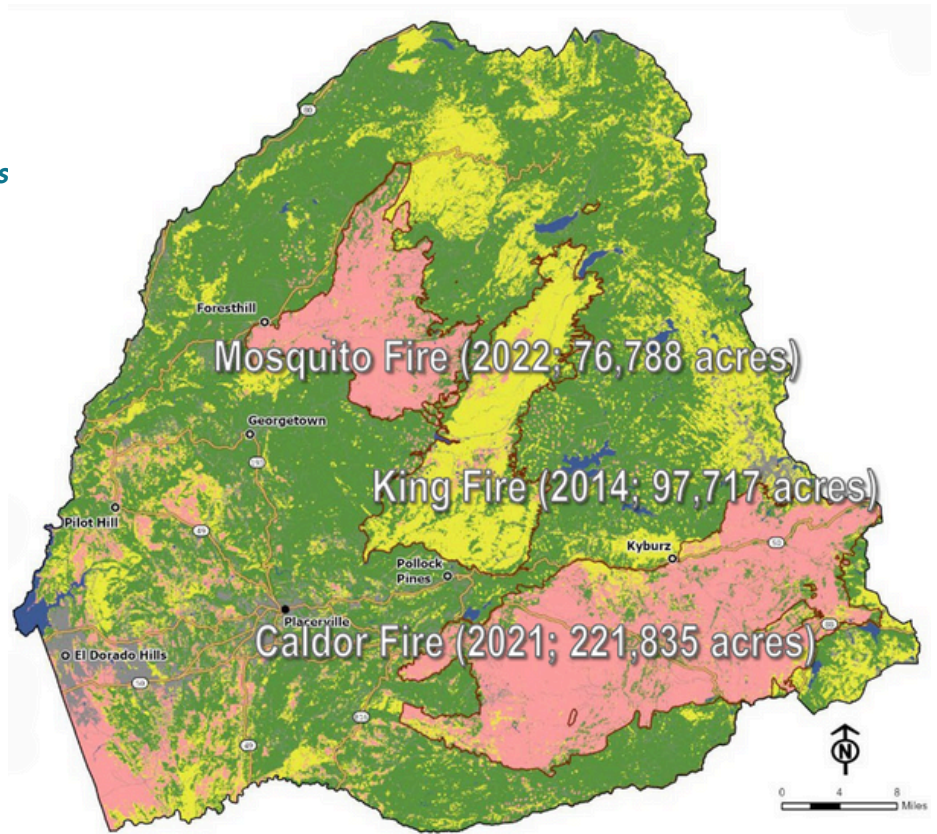
Recent wildfires created \$14.7 billion in damages to the ecosystem goods and services (EGS) in the upper American River watershed (UARW). Before the Caldor and Mosquito fires, the UARW had a natural capital asset value between \$731 billion and \$1.6 trillion based on 100-years of productivity. Natural capital damages occurred due to the loss and degradation of ecosystems from the wildfires and the economic impacts from the associated increase in carbon emissions. These devastating consequences reach far beyond the watershed because the UARW is a critical headwater for statewide water supply that fuels the fifth largest economy in the world.



The combined damaged areas of the 2022 Mosquito and 2021 Caldor fires encompasses over 285,000 acres (nearly 20% of the UARW). These two fires caused an estimated total of \$14.7 billion in losses to ecosystem goods and services (EGS) benefits assuming an optimistic 20-year recovery period. This includes over \$12.1 billion in long-term EGS losses and nearly \$2.6 billion in damages related to carbon dioxide emissions from the wildfires.

Source: Soares, J., Batker, D., and Batker-Pritzker, A. 2025. Natural Capital Damages from the Mosquito and Caldor Fires. Batker Consulting, Tacoma, WA. Prepared for El Dorado Water Agency.

The Mosquito and Caldor fires drastically changed the land cover in the upper American River watershed, which is still recovering from damage caused by the 2014 King fire. What was once predominately forests has become grasslands, significantly reducing the natural capital which society relies on. Fire-damaged areas need a minimum of 20 years to recover, if proper attention for recovery is given and adequate mitigation is implemented to prevent repeated damages.



Land Cover Class (2023)

- Forests
- Shrub/Scrub
- Grassland (Herbaceous)
- Cultivated
- Wetlands/Open Water
- Other (Perennial Snow, Barren, Developed/Open Space)

- City
- Town
- Highway/Major Road
- Caldor Fire, King Fire, Mosquito Fire



Contact

edcwa@edcgov.us
 (530) 621-5392
 edwateragency.org

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