FLOOD ANALYSIS OF THE THOMAS FLOODS USING NASA DATA

NASA/SSAI
Greenbelt, Maryland, USA

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This analysis is a follow-on to the Thomas Fire analysis presented by Ross Bagwell (“Fire Analysis of the Thomas Fire in California Using NASA Data in a GIS”). The Thomas Fire and heavy rains a month later led to the historic flooding. The maps tell the story using National Aeronautic and Space Administration (NASA) Earth Observing System data in concert with Santa Clara County data.

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SOFTWARE
ArcGIS Desktop 10.6

DATA SOURCES
NASA Land Processes Distributed Active Archive Center, NASA Alaska Satellite Facility Distributed Active Archive Center, Santa Clara County, NASA Distributed Active Archive Centers

Enhanced Vegetation Index (EVI)

Copernicus Sentinel-1A Synthetic Aperture Radar (SAR) data

Thomas Fire burn scar outline with major contour lines

Zooming in closer to the Santa Barbara area within the NASA GDEM

NASA Soil Moisture Active Passive (SMAP) data

NASA Global Digital Elevation Model (GDEM)

GPM Microwave Imager (GMI)