NORTH COAST RESOURCE PARTNERSHIP

Actionable Lidar-Based Data and Products

NASA and CA State Coastal Conservancy's Support of Wildfire Prevention Planning, Response, and Rehabilitation on California's North Coast

California's North Coast region includes the lands of over 35 Tribes, as well as the private, state, local, and federal lands of seven counties. The region is a major source for the state's water, biological diversity and forest-based carbon, benefiting the region, state, nation and the world. However, California's rural North Coast region is economically disadvantaged, with over 50% of the population living under the poverty line. To further exacerbate this inequity, the North Coast has experienced a disproportionate amount of the State's fires in the last 10 years, resulting in significant loss of life, major economic disruptions, widespread health impacts, greenhouse gas emissions, and degradation of North Coast ecosystems, water supplies and built infrastructure. Global climate change, 100 years of fire suppression, and development in the wildland urban interface continue to increase wildfire hazard throughout the region. To address these threats, Tribal, local, state, regional and federal agencies and land managers need immediate access to reliable, fine scale data on wildland fuels and topography to enable them to plan for, respond to, and recover from wildfires.

The North Coast Resource Partnership (NCRP) in collaboration with NASA, USGS, California Natural Resources Agency and the State Coastal Conservancy has leveraged over $7 million in state, local and federal co-funding to create consistent, detailed geospatial datasets of **slope, aspect, canopy height, canopy density, ladder fuels, and forest structure** for 21.5 million acres of land. All products are Open Source and accessible to the public at **www.pacificvegmap.org**. The products support:

- ✓ Wildfire planning: vegetation management and fuel load reduction, evacuation planning, identification of communities at risk, home hardening and infrastructure hardening, biomass utilization planning, community education and outreach
- ✓ Wildfire response: evacuation planning, fire behavior modeling and structure mapping
- ✓ Wildfire recovery post-fire: toxics and hazard abatement, Watershed Emergency Response Team (WERT) reports, habitat and water supply protection, communications, habitat restoration and fire response mitigation/clean up
- ✓ Wildfire intensity mapping, burn severity mapping and tree mortality tracking

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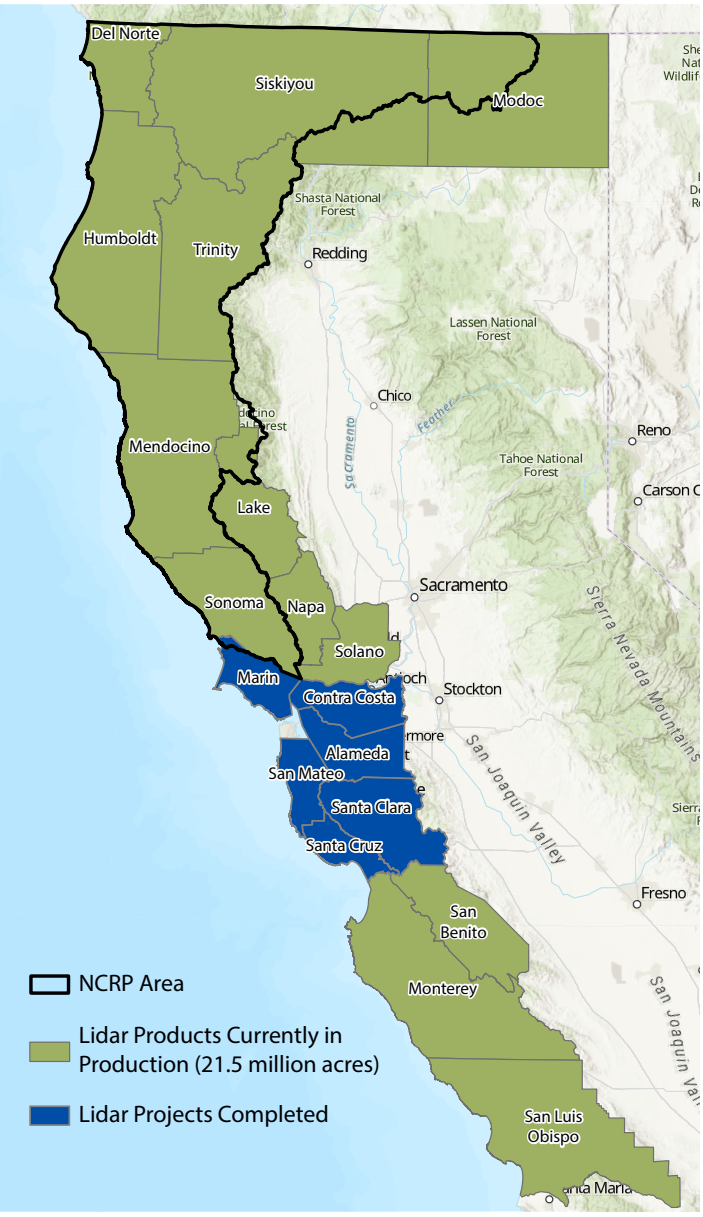
- ✓ Forest inventory, forest management and forest carbon inventories
- ✓ High resolution/fine scale vegetation maps to support conservation planning and state, federal and local land management
- ✓ Evaluation and mapping of landslide/debris flow hazard, flood inundation and past landslides/debris flows
- ✓ 'Next generation' hydrologic datasets, including elevation derived hydrography
- ✓ Salmonid habitat restoration and fine-scale riparian mapping
- ✓ Critical stream morphology information for water and fisheries managers
- ✓ Engineering and infrastructure pre-planning and planning solar energy generation sites
- ✓ Agricultural planning and precision agriculture



NCRP's project transforms foundational lidar data into easily usable data products that can be employed to plan for and respond to climate change. The products are used by a myriad of local, state, federal and Tribal users and are easily accessible to the public online.

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