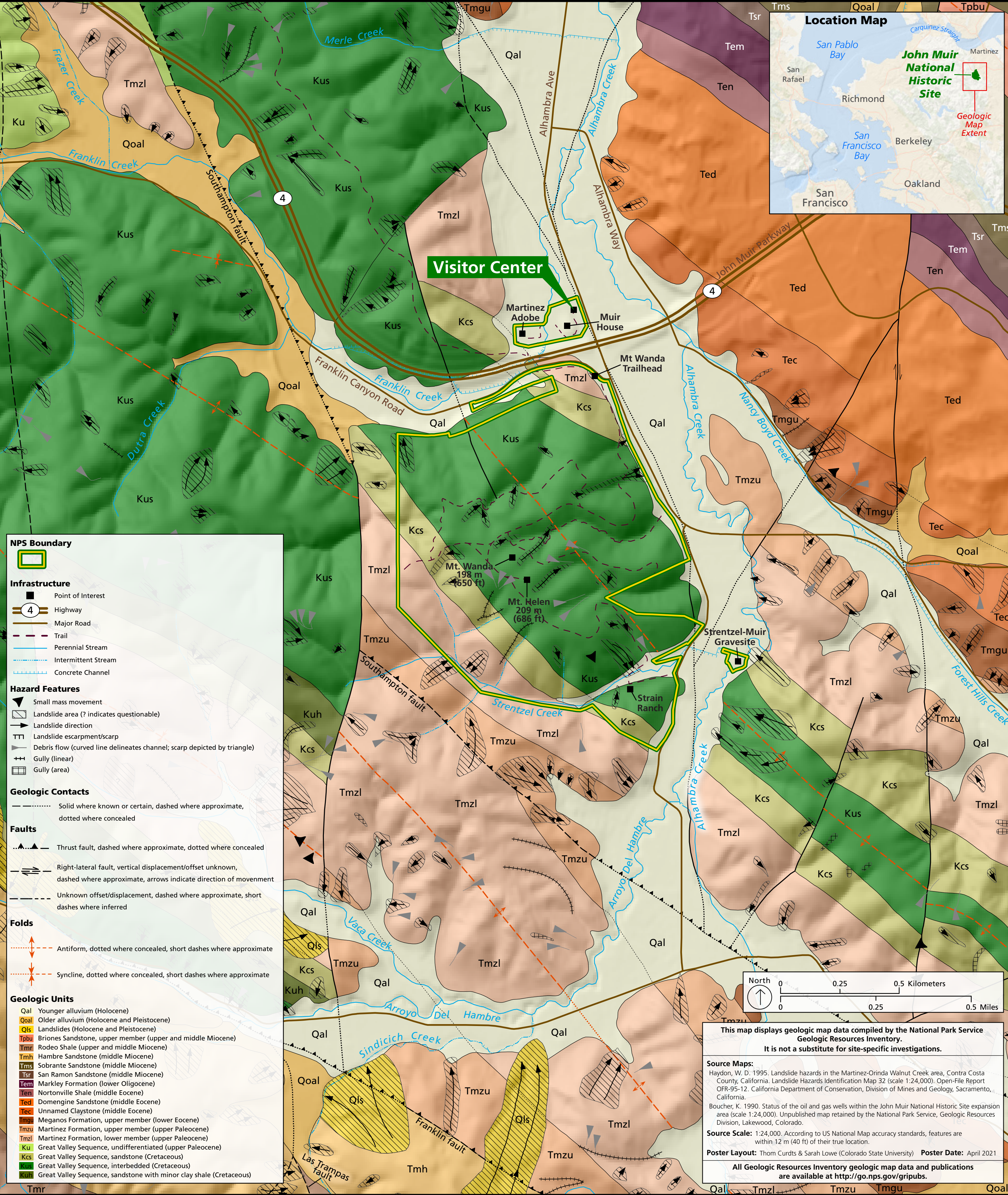


Geologic Map of John Muir National Historic Site

California



NPS Boundary



Infrastructure

- Point of Interest
- Highway
- Major Road
- Trail
- Perennial Stream
- Intermittent Stream
- Concrete Channel

Hazard Features

- Small mass movement
- Landslide area (? indicates questionable)
- Landslide direction
- Landslide escarpment/scarp
- Debris flow (curved line delineates channel; scarp depicted by triangle)
- Gully (linear)
- Gully (area)

Geologic Contacts

- Solid where known or certain, dashed where approximate, dotted where concealed

Faults

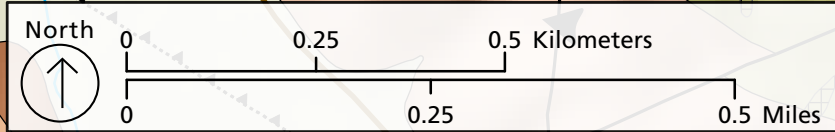
- Thrust fault, dashed where approximate, dotted where concealed
- Right-lateral fault, vertical displacement/offset unknown, dashed where approximate, arrows indicate direction of movement
- Unknown offset/displacement, dashed where approximate, short dashes where inferred

Folds

- Antiform, dotted where concealed, short dashes where approximate
- Syncline, dotted where concealed, short dashes where approximate

Geologic Units

- Qal Younger alluvium (Holocene)
- Qol Older alluvium (Holocene and Pleistocene)
- Qls Landslides (Holocene and Pleistocene)
- Tpbu Briones Sandstone, upper member (upper and middle Miocene)
- Tmr Rodeo Shale (upper and middle Miocene)
- Tmh Hambra Sandstone (middle Miocene)
- Tms Sobrante Sandstone (middle Miocene)
- Tsr San Ramon Sandstone (middle Miocene)
- Tem Markley Formation (lower Oligocene)
- Ten Nortonville Shale (middle Eocene)
- Ted Domengine Sandstone (middle Eocene)
- Tec Unnamed Claystone (middle Eocene)
- Tmg Meganos Formation, upper member (lower Eocene)
- Tmzu Martinez Formation, upper member (upper Paleocene)
- Tmzl Martinez Formation, lower member (upper Paleocene)
- Ku Great Valley Sequence, undifferentiated (upper Paleocene)
- Kcs Great Valley Sequence, sandstone (Cretaceous)
- Kuh Great Valley Sequence, interbedded (Cretaceous)
- Kuh Great Valley Sequence, sandstone with minor clay shale (Cretaceous)



This map displays geologic map data compiled by the National Park Service Geologic Resources Inventory. It is not a substitute for site-specific investigations.

Source Maps:
Haydon, W. D. 1995. Landslide hazards in the Martinez-Orinda Walnut Creek area, Contra Costa County, California. Landslide Hazards Identification Map 32 (scale 1:24,000). Open-File Report OFR-95-12. California Department of Conservation, Division of Mines and Geology, Sacramento, California.
Boucher, K. 1990. Status of the oil and gas wells within the John Muir National Historic Site expansion area (scale 1:24,000). Unpublished map retained by the National Park Service, Geologic Resources Division, Lakewood, Colorado.

Source Scale: 1:24,000. According to US National Map accuracy standards, features are within 12 m (40 ft) of their true location.

Poster Layout: Thom Curtis & Sarah Lowe (Colorado State University) **Poster Date:** April 2021

All Geologic Resources Inventory geologic map data and publications are available at <http://go.nps.gov/gripubs>.