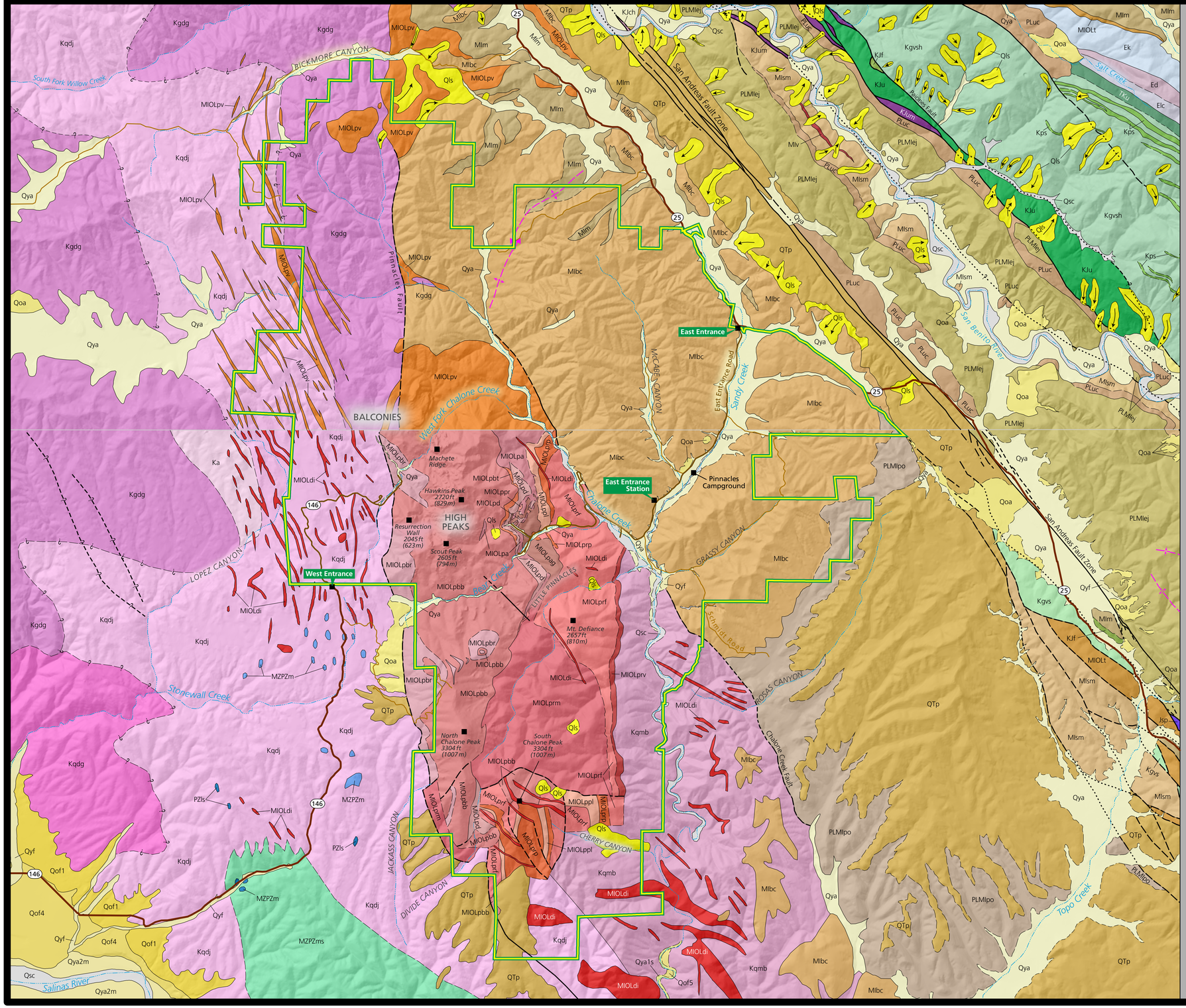
Geologic Map of Pinnacles National Park

California

National Park Service
U.S. Department of the Interior

Geologic Resources Inventory
Natural Resource Stewardship and Science



LEGEND

- Pinnacles National Park boundary
- Lake and intermittent stream
- Highway
- Park road
- Other road
- Landslide direction, known or certain
- 30′ x 60′ quadrangle boundary
- Point of interest

Folds

- Anticline, approximate
- Syncline, dashed where approximate, dotted where concealed

Faults

- Right-lateral strike-slip fault, solid where known or certain, dashed where approximate, dotted where concealed
- Unknown offset/displacement, solid where known or certain, dashed where approximate, short dashed where inferred, dotted where concealed, question marks where queried

Geologic Contacts

- Solid where known or certain, dashed where approximate, short dashed where inferred, dotted where concealed, question marks where queried

Geologic Units

- Qsc — Modern stream channel deposits (Holocene)
- Qls — Landslide deposits (Pleistocene? to Holocene)

Young Alluvium

- Qya — Undifferentiated (Holocene)
- Qya3 — Unit 3 (Holocene)
- Qyf — Fan deposits (Holocene)
- Qya2 — Unit 2 (Holocene)
- Qya2m — Unit 2, includes Metz terrace (Holocene)
- Qya1 — Unit 1 (Holocene)
- Qya1s — Unit 1, includes Salinas terrace (Holocene)

Older Alluvium

- Qoa — Undifferentiated (Pleistocene to Holocene?)
- Qof5 — Fan deposits, unit 5 (Pleistocene)
- Qof4 — Fan deposits, unit 4 (Pleistocene)
- Qof1 — Fan deposits, unit 1 (Pleistocene)
- Qvof — Very old alluvial fan deposits (late middle Pleistocene)
- QTp — Paso Robles Formation, undifferentiated (Pleistocene and Pliocene)
- PLuc — Unnamed Pliocene continental deposits (Pliocene)
- PLMlej — Etchegoin Formation and Jacalitos Formation, undivided (late Miocene to Pliocene)
- PLMlpo — Pancho Rico Formation, mudstone (late Miocene to early Pliocene)
- Mlsm — Santa Margarita Sandstone (late middle? to late Miocene)
- Mlbc — Bickmore Canyon Arkose (late and middle Miocene)
- Mlm — Monterey Formation, undifferentiated (early? to late Miocene)
- Mlb — Basalt (Miocene?)

Pinnacles Volcanic Formation

- MIOLpv — Undifferentiated (Miocene and Oligocene)
- MIOLpbr — Breccia Member, white aphanitic rhyolite flows (late Oligocene to early Miocene)
- MIOLpbb — Breccia Member, breccia and tuff (late Oligocene to early Miocene)
- MIOLpbt — Breccia Member, predominantly tuff (late Oligocene to early Miocene)
- MIOLppr — Porphyritic Rhyolite Member (late Oligocene to early Miocene)
- MIOLpd — Dacite Member (late Oligocene to early Miocene)
- MIOLpag — Agglomerate Member (late Oligocene to early Miocene)
- MIOLpa — Andesite Member (late Oligocene to early Miocene)
- MIOLppl — Pumice Lapilli Tuff Member (late Oligocene to early Miocene)
- MIOLprm — Rhyolite Member, massive rhyolite (late Oligocene to early Miocene)
- MIOLprp — Rhyolite Member, perlite (late Oligocene to early Miocene)
- MIOLprf — Rhyolite Member, flow banded rhyolite (late Oligocene to early Miocene)
- MIOLprv — Rhyolite Member, vitric lapilli tuff (late Oligocene to early Miocene)
- MIOLdi — Dikes (late Oligocene to early Miocene)
- MIOLt — Temblor Formation (Oligocene to early Miocene)
- Mlv — Unnamed Miocene Volcanic Rocks (Miocene)
- Ek — Kreyenhagen Formation (Eocene)
- Ed — Domengine Sandstone (Eocene)
- Elc — Lodo Formation, Cantua Sandstone Member (Eocene)
- TKu — Tertiary and Cretaceous sedimentary rocks (Tertiary and Cretaceous)
- Ka — Aplite, alaskite, and pegmatite (Cretaceous)
- Kgdg — Granodiorite of Gloria Road (Cretaceous)
- Kqdg — Gneissic quartz diorite of Stonewall Canyon (Cretaceous)
- Kgvsh — Great Valley complex, shale (Cretaceous, in part Jurassic?)
- Kps — Panoche Formation, sandstone (Cretaceous)
- Kqdj — Quartz diorite-granodiorite of Johnson Canyon (Cretaceous)
- Kqmb — Quartz monzonite of Bickmore Canyon (Cretaceous)
- Kgvs — Great Valley complex, sandstone and shale (Cretaceous, in part Jurassic?)

Franciscan Complex

- KJf — Greywacke and melange (Jurassic to Cretaceous)
- KJch — Chert (Cretaceous and Jurassic)
- KJgs — Greenstone (Cretaceous and Jurassic)
- KJum — Serpentine (Cretaceous and Jurassic)
- KJbs — Blueschist and semischist (Cretaceous and Jurassic)
- KJu — Cretaceous and Jurassic sedimentary rocks (Cretaceous and Jurassic)
- Jsp — Serpentinite (Jurassic to Cretaceous?)
- MZPZms — Mica schist (Mesozoic and/or Paleozoic)
- MZPZm — Marble (Mesozoic and/or Paleozoic)
- PZls — Carbonate rocks (Paleozoic)

Note: Geologic units and features that end abruptly at a source map boundary reflect differences in interpretation between source maps rather than actual geologic conditions. Resolving these differences is not within the scope of the GRI program.

North

0 2 4 6 Kilometers

0 2 4 Miles

Location Map

This map displays geologic data compiled by the National Park Service Geologic Resources Inventory (GRI). It is not a substitute for site-specific investigations. All GRI products are available at https://go.nps.gov/gripubs.

Source Maps:

Wagner, D. L., H. G. Greene, G. J. Saucedo, and C. L. Pridmore. 2002. Geologic Map of the Monterey 30' x 60' Quadrangle and Adjacent Areas, California (scale 1:100,000). Geologic Map No. 1. California Geological Survey, Sacramento, California.

Rosenberg, L. and C. J. Wills. 2016. Preliminary Geologic Map of the Point Sur 30' x 60' Quadrangle, California (scale 1:100,000). California Geological Survey, Sacramento, California.

Source Scale 1:100,000. According to US National Map Accuracy Standards, features are within 51 meters (or 166 ft) of their true location.

Poster Layout: Thom Curdts, Lucas Chappell, and Chase Winters (Colorado State University)

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