

Discover more information about California's geology and its faults online.

More Hollister Hills Geology

www.ohv.parks.ca.gov/hollisterhills

Fault Activity Map of California

maps.conservation.ca.gov/cgs/fam/

Creation of the San Andreas Fault

Nps.gov/pinn/learn/nature/how-pinnacles-formed.htm



sycamore tree in the fall season



Hollister Hills State Vehicular Recreation Area

7800 Cienega Road
Hollister CA 95023

(831) 637-3874

www.ohv.parks.ca.gov/hollisterhills

Hollister.Hills@parks.ca.gov

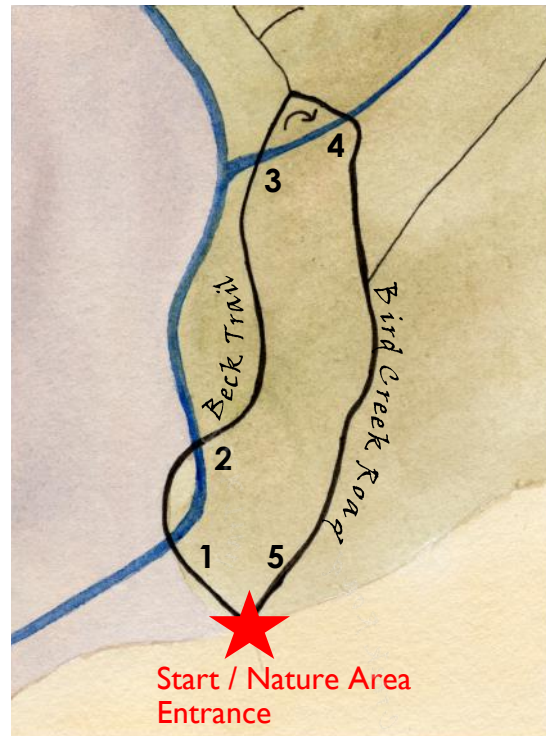
@HollisterHillsSVRA

Beck Trek

Self-Guided Trail

The San Andreas Fault plays a large part in shaping the California we know today. This landscape, like you, is on a journey filled with change, beauty, and struggle.

On this one-mile, relatively flat loop trail, you can discover the many ways in which this voyage affects our lives and our recreation at Hollister Hills State Vehicular Recreation Area (SVRA).



Hollister Hills State Vehicular Recreation Area



Please remember

- Leave only footprints, take only photographs. All park features are protected.
- Stay on designated trails.
- Watch for three-leaved poison oak.
- Please keep dogs on leash.
- Hiking and bicycling only.



Poison oak

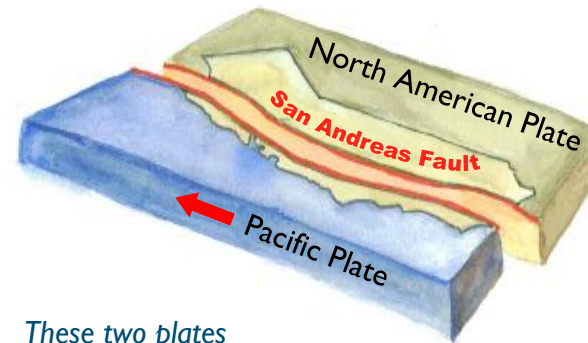
What is the San Andreas Fault?

The earth's crust is made up of immense tectonic plates that fit together like a giant puzzle. A fault is the boundary between those plates.

The San Andreas Fault is the margin between the Pacific Tectonic Plate and the North American Tectonic Plate.

The fault divides Hollister Hills SVRA into two distinct landscapes, creating an ever changing terrain that affects how we recreate.

The Nature Area is on the Pacific Plate.



These two plates have been sliding past each other for 30 million years at a current rate of about 1.5 inches per year.

I. How the Fault Affects Waterways

⇒ Stop at the first bridge on Beck Trail.

Can you find the tall sycamore trees with their tan puzzle-like bark, and star-shaped leaves? Sycamores are water-loving plants and typically only occur near streams. The water in Bird Creek may not be flowing here depending on the time of year, but it's still always there (even if it's underground).

This is a spring-fed stream that originates west of the park boundary. The direction this stream flows has changed over time due to the fault. As the Pacific Plate moves northwest, it drags the beginnings of Bird Creek with it, offsetting the water more than a mile.

Springs are common along faults. Repeated movements grind the rock along the fault into a fine-grained, broken-up material called "fault gouge". This material holds water which rises from below. Given the right conditions, water may actually bubble up out of the ground when it encounters an underground "reservoir" of fault gouge.



Map of Bird Creek, before its origins moved northwest with the Pacific Plate.

2. How the Fault Affects

Plant Communities

⇒ Stop at second bridge on Beck Trail.

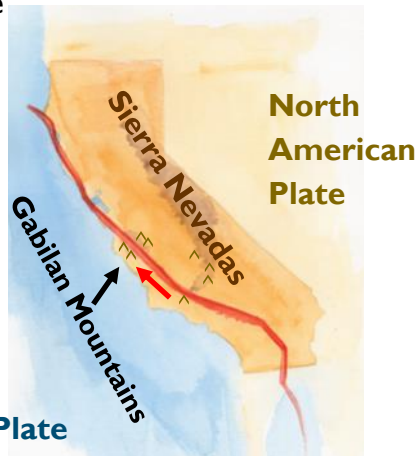


California sagebrush

Look at the canyon wall. Do the plants look different in comparison to the plants growing along the creek?

These smaller shrubby plants on the canyon wall are part of a chaparral plant community. Chaparral communities are dense thickets of shrubs that stay green all year and can tolerate hot dry summers. These plants also thrive in soil that drains easily, like the porous sandy granitic soil brought here by the San Andreas Fault.

Look at the large granite boulders in the creek. These rocks are thought to have traveled over 200 miles (322 kilometers) from the southern tip of the Sierra Nevada Mountains. The San Andreas Fault acts like a conveyor belt, moving the old granitic-based soil (over 145 million years old) to where you are standing today.



Pacific Plate

3. How the Fault

Affects Topography

⇒ Stop at third bridge on Beck Trail over Azalea Creek.

You are standing in the Gabilan Mountains, which run in the north-south direction along Monterey and San Benito County. The tallest peak is nearby Fremont Peak, at 3,455 feet (1,053 m) in elevation.

This range exists because of the San Andreas Fault. The pressure between the two tectonic plates uplifted the land to create mountains.

The current name is from early Spanish explorers—gavilán meaning hawk (gabilan is an older alternate rendering). Prior to the Spanish, Mexican and American colonization, the name for this area is *Popeloutchom*. The Mutsun people have occupied these lands for 12-14,000 years. Today, the native people of this area are known as Amah Mutsun, and are comprised of the descendants of those who survived missions San Juan Bautista and Santa Cruz.

When you reach the trail junction, turn right onto Bird Creek Road.



tiger lily
blooms in July

4. How the Fault affects

Animal Communities

⇒ Stop at Azalea Creek (may appear dry in the summer and fall seasons).



banana slug

Look up the creek—you are looking at Azalea Canyon. Steep, narrow canyons are dark, trap moisture, and stay cooler in temperature than surrounding areas. This creates a microclimate for plants

and animals that normally would live closer to the coast. Banana slugs, western azaleas, and tiger lilies are all examples that call Azalea Canyon their home.

This steep canyon is created by the fault uplifting, and the unique nature that the granitic soil erodes.

You are also standing next to another community, the riparian area along Azalea Creek.

A riparian community is one that lives along rivers and streams. The plants and animals that live here require more water than any of the others like amphibians or trees like sycamores, and big leaf maples.



big leaf maple



sycamore

recreational opportunities Hollister Hills SVRA offers.

5. How the Fault Affects You

⇒ Stop when you've returned to the beginning.

Did you experience the 1989 Loma Prieta Earthquake? Most people associate the San Andreas Fault with earthquakes, but it shapes so much more of our lives. (The epicenter for the Loma Prieta Earthquake is about 30 miles/ 48 kilometers north west of Hollister Hills, located in the Santa Cruz Mountains.)

Howard Harris, the last private land owner of Hollister Hills, recognized the importance of studying the fault and therefore dedicated these 300 acres of the Nature Area to the University of California, Berkeley for its continuing research.

Today the landscape is still forming through fault activity. Each plate's unique soil and terrain determines how the land is managed, and contributes to the many different

western azalea
blooms May & June

