Tuweep/Toroweap

"What a conflict of water and fire there must have been here! Just imagine a river of molten rock running down into a river of melted snow. What a seething and boiling of the waters; what clouds of steam rolled into the heavens!"

- John Wesley Powell, 1869 expedition

The view from Toroweap Overlook, 3000 vertical feet above the Colorado River, is breathtaking; the sheer drop, dramatic! Equally impressive are the volcanic features, cinder cones and lava flows, which make this viewpoint unique in Grand Canyon National Park. Renowned Lava Falls Rapid is just downriver and can be seen and heard easily from the overlook. This area. known as both Tuweep and Toroweap, is on the northwest rim of Grand Canyon in the remote Arizona Strip. The Kanab Plateau rises sharply to the east, while the volcanic Pine/Uinkaret Mountains form the western margin of Toroweap Valley. Toroweap, a Paiute term meaning "dry or barren valley," refers to many local features, including the geologic formation and fault, the valley, and the overlook. Tuweep came into use to describe the local white settlement and later the park district. Tuweep in Painte refers to "the earth," but this place-name may be derived from a longer Paiute word meaning "long valley." A visit to this area can be challenging, but rewarding. Since the National Park Service manages the area for its primitive values. improvements and services are minimal.

Getting to Tuweep

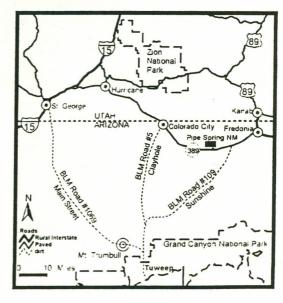
Maps are available at the Bureau of Land Management office in St. George, Utah, at nearby Pipe Spring National Monument, and at the U.S. Forest Service office in Fredonia, Arizona.

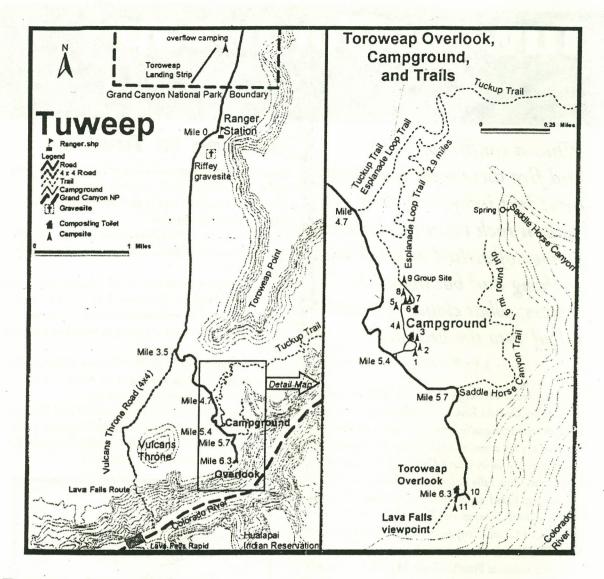
The area can be reached from Arizona Highway 389 near Fredonia or Colorado City, Arizona, or from St. George, Utah.

Sunshine Route (BLM road #109), the primary access route, leaves Highway 389 about 7 miles/12km west of Fredonia. It is 61 miles/100 km long and is the most reliable route, but is subject to washboarding and dust.

Clayhole Route (BLM Road #5) leaves Highway 389 at Colorado City. It is also about 60 miles/100 km long, but may be impassable when wet.

Main Street Route (BLM Roads #1069 and #5) from St. George is about 90 miles/145 km long and is the most scenic route. It may be impassable in winter due to snow on the slopes of Mt. Trumbull.





Road Conditions

All routes are secondary county roads, graded occasionally and generally in good condition. The last three miles across the slickrock are the roughest. Allow 2-3 hours travel time from the highway to the overlook. RVs, trailers, or low-clearance vehicles are not recommended. All routes may be impassable after heavy rains and are subject to flash flooding. Tire damage from sharp rocks is common. Dangerous curves are often unmarked, and posted mileages may be inaccurate. Since there are few, if any, year-round residents,

assistance is not guaranteed on any route. For these reasons, no one should attempt the trip without ample preparation and knowledge of hazards associated with remote desert travel.

Travelers should have extra water, food, gasoline, good tires, at least one usable spare tire, and parts and tools to handle vehicle and tire repairs.

Your Visit

Recreation: Tuweep, accessible year round, is managed for its undeveloped recreational experiences: solitude, natural history exploration, photography, camping,

and limited hiking. Trails in the campground area are relatively easy. The Lava Falls Route down to the river is extremely rough, steep, and exposed to the sun. The Tuckup Trail is mostly flat to Tuckup Canyon, but has few water sources.

Fees: There is no charge for campground or day-use. A permit and fee are required for backcountry camping.

Campground: Eleven primitive, first-come, first-served sites are available near the rim, including one group site. The group site may be reserved by calling (520)638-7870.

Sites fill during spring and fall months, especially on weedends. Picnic tables, fire grates, and composting toilets are provided, but no electricity or water is available. Bring your own firewood.

Services: No gas, food, water, lodging, garbage collection, or other services are provided. A National Park Service ranger is stationed here year-round, but may not always be available. An emergency phone is located at the Tuweep Ranger Station.

Regulations: Please read and follow posted regulations. All park resources are protected by law. Collecting firewood, artifacts, or any natural resource is prohibited. Please sign your name in the overlook register, not in the sandstone. All wheeled vehicles must stay on established roads. Use caution near the edge and do not throw anything over the rim. Practice Leave No Trace principles and take only photographs.

Geology

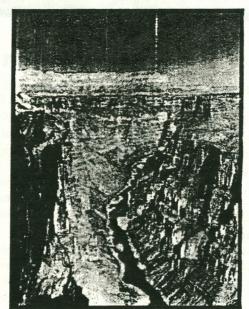
The geologic history of the Tuweep area is similar to the rest of Grand Canyon, but includes a more recent chapter of volcanism. The Toroweap Fault underlies

> the valley, crosses the Colorado River, and continues south up Prospect Canyon. Volcanic activity began along this fault around seven million years ago. Over time lava issued from more than 60 vents. Beginning about 1.2 million years ago some flowed into Toroweap Valley, forming the flatbottomed valley we see today. 'Vulcans Throne, Mount Trumbull, and the Uinkarer Mountains are other features that are the result of volcanic activity.

More than a dozen times lava spilled over the canyon rim, damming the Colorado River.

Remnants of these flows and dams are easily visible just west of the overlook. Sediments clinging to the canyon walls high above the river indicate the formation of large lakes. The river eroded the lava dams and continued its downward cutting. It is now 50 feet (15 m) deeper than the base of the dams, Despite its name, Lava Falls Rapid was formed from debris washed down Prospect Canyon, not from remains of the lava flows.

It is less than one mile across the canyon to the Hualapai Indian Reservation on the South Rim, making this one of the narrowest and deepest segments of the inner canyon. The colorful redrock of the Hermit Shale and Supai sandstones to the east contrasts with the black, basaltic lava flows to the west, making Toroweap Overlook a memorable and often-photographed viewpoint in Grand Canyon.



Grand Canyon
National Park Service
United States Department of the Interior

Ecology

Tuweep sits at an elevation of 4600 feet (1400 m) on a landform known as the Esplanade, which forms a flat shelf situated about halfway between the coniferous forests of the North Rim and the hot canyon bottom. This is a high desert area with mild winters and light snows. Summers are hot with thunderstorms from July to September.

In Toroweap Valley a chaparral community exists with juniper and pinyon pines, sagebrush and saltbush, Mormon tea and other woody shrubs, and various grasses. Nearer the Esplanade succulent cacti, yucca, and agave predominate. In years of abundant winter moisture, wildflowers may proliferate. Some life forms, like the crusty black "cryptobiotic" soil, are rare and sensitive. Please avoid stepping on these fragile living organisms.

Wildlife includes coyotes, mule deer, jackrabbits, rodents, and numerous species of birds and reptiles. An often-overlooked and little-understood biotic community exists seasonally in the slickrock water pockets on the Esplanade. Fairy and horseshoe shrimp, tiny frogs, and microscopic organisms emerge from the muddy bottom when moisture fills these pools for sufficient periods of time. The desert is truly a beautiful and amazing place to those who take the time to explore and study it.



Human History

The first humans in the Tuweep region were likely iceage hunters who lived a nomadic hunting-gathering existence in what was a milder climate. The Ancestral Puebloans farmed in this area, arriving about 2000 years ago and migrating eastward around A.D.1300. The most recent American Indian group to live here is the Paiute, who have a reservation to the north. Evidence of past human presence in this region includes dwellings, rock art, and numerous artifact sites.

John Wesley Powell visited Tuweep in 1870 while unsuccessfully searching for missing members of his 1869 river expedition. He mapped and named many of the local features. More recently, European-Americans ranched, mined, and settled in the area. While ranchers used this valley seasonally in the early 1900s, the first year-round homestead was the Lower Kent Ranch, built in 1927 and located just north of the park. Other pioneers in the region included the Schmutz, Cunningham, Craig, and Bundy families. Henry Covington herded sheep and mined on the Esplanade off and on for over 20 years. There are still many sites that speak of his determination to live and prosper in this arid region.

In 1932 the Tuweep area was protected within Grand Canyon National Monument, despite opposition from local residents. Congress added the area to Grand Canyon National Park in 1975. One of the best known residents of the area was Tuweep ranger John Riffey, who worked here for 38 years. His helpfulness, longevity, and airplane ("Pogo") contributed to his legendary status. Today, the area is managed for preservation of the abundant natural and cultural resources and for the enjoyment of the few who venture to this remote corner of Grand Canyon.