



2021 Park Profile



Authorization

- 1882: First unsuccessful attempt to establish a Grand Canyon National Park
- 1893: Designated a "forest reserve" by President Benjamin Harrison (Presidential Proclamation #45)
- 1908: Establishment of Grand Canyon National Monument by President Theodore Roosevelt (Presidential Proclamation #794)
- 1919: Designated as Grand Canyon National Park by an act of Congress on February 26 (40 Stat 1175)
- 1965: Designated as Kaibab Squirrel Natural Landmark by Interior Secretary Stewart Udall (North Rim and Kaibab Plateau)
- 1975: Grand Canyon National Park Enlargement Act enacted by Congress on January 3 (88 Stat 2089) (Public Law 93-620)
- 1979: Designated a World Heritage Site on October 26
- 2013: Designated as a Globally Important Bird and Biodiversity Area by BirdLife International
- 2019: Designated an International Dark Sky Park (IDSP) by the International Dark-Sky Association

Park Statistics

Grand Canyon National Park

Park Size:

- 1,218,375 acres (493,059 ha)
- 1,904 square miles (4,931 km²)

Length: 278 river miles (447 km)

Width:

- Minimum at Marble Canyon, 600 feet (180 m)
- Average Rim to Rim: 10 miles (16 km)
- Maximum Rim to Rim: 18 miles (28.8 km)

Depth: Average 1 mile (1.6 km)

Elevations:

- South Rim 7,000 feet (2,100 m)
- North Rim 8,000 feet (2,400 m)

Volume: 5.45 trillion cubic yards (4.17 trillion m³)

Colorado River in Grand Canyon National Park

Length: 278 miles (447 km)

Average Width: 300 feet (90 m)

Minimum Width: 76 feet (23 m)

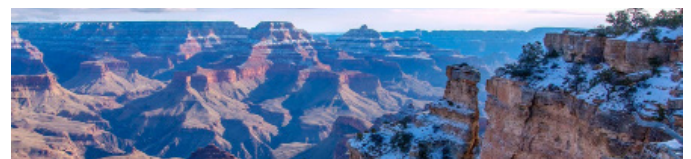
Average Depth: 40 feet (12 m)

Greatest Depth: 85 feet (25.5 m)

Average Gradient: 7 feet per mile (1.3 m/km)

Elevation at Phantom Ranch: 2,400 feet (720 m)

The Colorado River is 1,450 miles (2,333 km) long from its source in the Rocky Mountains of Colorado to the Gulf of California.



Geology

Grand Canyon National Park preserves an iconic geologic landscape and resources ranging from 1.8 billion (Pre-Cambrian) year-old igneous and metamorphic rocks to 230 million (Triassic)-year-old sedimentary rocks, 5 million (Pliocene)-year old to recent volcanic deposits, a complex tectonic and erosional history, and unconsolidated surface deposits.



The Colorado River established its course through the canyon approximately 6 million years ago and likely evolved from pre-existing drainages to its current course. Geologic processes, including erosion of tributaries and slopes, and active tectonics continue to shape the canyon today. The geologic record in Grand Canyon is an important scientific chronicle and is largely responsible for its inspirational scenery.

Paleontology resources include nearly 300 diverse and globally significant fossil localities ranging from 1.2-billion-year-old stromatolites to Paleozoic trilobites, plants, reptile tracks, and marine invertebrates, and Pleistocene megafauna in caves.

Plant and Animal Life

Animals

Birds: 450 species

Mammals: 91 species

Fish: 18 species, 5 native

Reptiles and Amphibians: 58 species

Invertebrates: 1,443 species, including 292 butterflies and moths

Exotic (non-native) animals: 30 species

Park Endemic animals, not extirpated: 9 species; 5 butterflies, 1 pseudoscorpion, 1 tarantula, 1 snake, 1 mollusk

Regionally Endemic animals, not extirpated: 5 species; humpback chub, razorback sucker, flannelmouth sucker, Kaibab squirrel, and the Navajo Mexican vole

One reptile, three mammal, and one mollusk species are known only from the Grand Canyon region. At least nine species of insects are endemic to Grand Canyon, and six fish species are endemic to the Colorado River basin.

Plants

Vascular Plants: 1,747 species

Endemic Plants: 4 species

Exotic (non-native) Plants: 208 species

Vegetation Formations

6 types: riparian, desert scrub, pinyon/juniper woodland, ponderosa pine forest, spruce/fir forest, and montane meadows/sub-alpine.

Endangered/Threatened

Animals: California condor, humpback chub, razorback sucker, southwestern willow flycatcher, Mexican spotted owl, Ridgway's rail, yellow-billed cuckoo, and desert tortoise. There are over 35 species of special concern.

Plants: The sentry milk-vetch (*Astragalus cremnophylax* var. *cremnophylax*) is the only endangered plant in the park. There are no listed threatened plant species. Nine species of special concern (formerly category 2 species) are known, and 25 additional vascular plants are of management concern due to their limited distribution.

Extirpated Species

Grizzly bear, black-footed ferret, gray wolf, jaguar, Bear Valley sandwort, Colorado pikeminnow, bonytail, roundtail chub, and southwestern river otter.



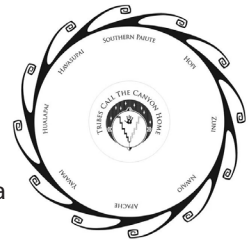
Human History

The oldest human artifacts found date to the Paleoindian period and are nearly 12,000 years old. Since that time, various cultures have continually used and occupied lands that became the park. Archaeological evidence from the following prehistoric culture groups is found in Grand Canyon National Park: Paleoindian, Archaic, Basketmaker, Ancestral Puebloan (Kayenta and Virgin branches), Cohonina, Cerbat, Pai, and Southern Paiute. Historical-period cultural groups include the Hopi, Navajo, Pai, Southern Paiute, Zuni, and Euro-American.

There are currently 3,391 ancestral sites documented within the park dating to the prehistoric period, representing approximately 7% of park lands inventoried. In addition, park records document evidence of historic period use from 1540-1950, including 453 locations with evidence of historic Native American use.

Tribal Partners

Grand Canyon is home to 11 federally recognized tribes with deep history and connection to the Grand Canyon since time immemorial. Tribal governments and communities work closely with park administration and management on a host of programs. Through collaborative projects such as the Desert View Watchtower Intertribal Cultural Heritage Site, the park is working with tribes to provide accurate and culturally appropriate information to visitors. This "First Voice" programming acknowledges the rich and diverse cultural history of the Grand Canyon and celebrates the connections native people have to the Canyon. Tribal lands surrounding the park offer many unique tourism opportunities to visitors planning a trip to the Grand Canyon.



Historic Resources

National Historic Landmarks

- Individual Buildings: 4
- Districts: 3
- Sites: 1

National Register of Historic Places

- Buildings: 8
- Districts: 10
- Sites: 2
- Structure: 1

National Register properties include archaeological sites, historic structures, cultural landscapes, and ethnographic resources. The park is working with the University of Arizona and tribes to prepare a nomination for the Grand Canyon as a Traditional Cultural Place. The work will be completed in 2022.

List of Classified Structures (LCS): 874

LCS includes National Historic Landmark and National Register listed or eligible properties.

Cultural Landscapes: 16

Climate

Climate in Grand Canyon National Park is relatively mild. However, low humidity generally allows large temperature differences between day and night.

Since precipitation totals are low, year-to-year variations can be large. The passage of a few major storms can have a significant impact on the year's total.

South Rim

- Mean High Temperature-30 yrs: 64°F (17.8°C)
- Mean Low Temperature-30 yrs: 29.5°F (-1.4°C)
- Avg. Annual Precipitation-30 yrs: 13.4 inches (34.0 cm)
- Total Precipitation in 2021: 11.5 inches (29.2 cm)

North Rim

- Mean High Temperature-30 yrs: 55°F (12.8°C)
- Mean Low Temperature-30 yrs: 31.7°F (-0.2°C)
- Average Annual Precipitation-30 yrs: 24 inches (62 cm)
- Total Precipitation in 2021: Too much missing data

Phantom Ranch

- Mean High Temperature-30 yrs: 81°F (27.2°C)
- Mean Low Temperature-30 yrs: 54.2°F (12.3°C)
- Average Annual Precipitation-30 yrs: 9.6 inches (24 cm)
- Total Precipitation in 2020: 8.49 inches (21.6 cm)

Development

Buildings

Total: 1,182
National Park Service: 647
Concessioners: 535

Trails

Paved: 35 miles (56.3 km)
Unpaved: 560 miles (901.2 km)
Total: 595 miles (957.6 km)

Roads

Paved: 124 miles (199.6 km)
Unpaved: 148 miles (238.2 km)
Total: 272 miles (437.7 km)

Sewage Treatment Facilities

Total: 4

Trans-canyon Waterline (TCWL)

Water from Roaring Springs to the North and South rims
Total: 23 miles (37 km)

Lodging Units

South Rim: 908
North Rim: 219
Phantom Ranch: 15

Rim Campsites

Mather: 317 family, 7 group, 2 hiker/biker, 2 livestock
Desert View: 50 family
North Rim: 90 family, 3 group
Tuweep: 9 family, 1 group

Recreational Vehicle Sites

Total: 123

Visitor Facilities

Visitor centers, museums, theaters, backcountry offices, historic structures, scenic overlooks, accessible rim trails, lodging, campgrounds, dump stations, service stations, restaurants, cocktail lounges, coffee shops, general stores, gift shops, bookstores, clinic, bank, post offices, churches, and a kennel. Some facilities are seasonal.

Visitor Services

Services include educational exhibits, curriculum-based education programs, junior ranger programs, ranger programs and hikes, picnicking, bicycling, bike rentals, self-guided hikes, mule riding, backpacking, fishing, river trips, overnight lodging, camping, camper services, guided bus tours, air tours (outside of park), shuttle bus service, taxi, auto repair, publication sales, gift and grocery sales, law enforcement, and medical and emergency services.

Concessioners

In Fiscal Year 2021, 22 concessioners grossed approximately \$176 million and paid franchise and other fees of approximately \$16.5 million.



2021 Visitor and Resource Protection

Law Enforcement Activities

Total Number of Criminal Case Reports: 689
Arrests: 43
Part I Offenses Investigated: 10
Part II Offenses Reported: 1,018
Law Enforcement Jurisdiction: Concurrent

Emergency Medical Services

Emergency Medical Service Incidents: 1,157
Fatalities: 23

Search and Rescue Incidents (SAR)

Total: 411

Preventive Search and Rescue (PSAR)

Total Contacts: 135,831
Preventative Actions: 21,844
Hiker Assists: 434

Structural Fire Incidents and Responses

Total: 82

Wildland Fire Incidents and Treatments

Fire Start Incidents: 14
Acres treated with wild & prescribed fire: 1,091
Acres of defensible space treated: 21

2021 Visitation

Total Visitation

2021 Total: 4,550,921 **2020 Total: 2,897,098*** 2019 Total: 5,974,411 2018 Total: 6,380,495 2017 Total: 6,254,238

Shuttle System Passengers

2,856,150 boardings (not passengers)

The shuttle system was implemented in 1974. Year-round shuttle service began March 10, 2000.

Backcountry User Nights

Total: 85,656

Corridor: 40,924

Other Backcountry Trails: 44,732

Backcountry permits issued: 12,904

Backcountry permits used: 11,038

Colorado River User Days

Lees Ferry to Diamond Creek

Commercial: 132,991

Noncommercial: 113,674

Diamond Creek to Pearce Ferry

Noncommercial: 14,723

Mule Trip Riders

Xanterra, South Rim

Phantom Ranch 1 night: 1,823

Phantom Ranch 2 nights: 325

Canyon Vistas: 10,146

Canyon Trail Rides, North Rim

One Hour Rim Ride: 3,664

Half Day Inner Canyon Ride: 4,588

Half Day Rim Ride: 1,027

Train Passengers

North-bound boardings

Total: 164,588

*Park closure April-May 2020 due to the COVID-19 pandemic



2021 Interpretive Services and Activities

Visitor Centers and Contact Stations

Grand Canyon Visitor Center

Verkamp's Visitor Center

Yavapai Observation Station

Tusayan Ruin and Museum-Closed in 2021

Desert View Visitor Center

North Rim Visitor Center

Kolb Studio

Indian Garden

Phantom Ranch

Headquarters-Closed to the public in 2021

Interpretive Walks, Talks, and Programs

201 programs to 7,764 visitors

Environmental Education Programs

67 programs to 1,732 participants (distance learning)

Print Publications

Park Unigrids/maps distributed on the South Rim: 757,350

Pocket Map and Services Guide distributed on the South Rim: 1,050,000

All other brochures: 249,000

Pocket Map and Services Guide available in eight languages.

Digital and Social Media

Facebook followers: 674,026

Instagram followers: 833,846

Twitter followers: 195,191

Total nps.gov/grca page views: 17,786,965

Survey of customer satisfaction with GRCA website:
82.6% (NPS average customer satisfaction:
81.5%)

Administration

FY 2021 Funding

- Operation of the National Park System (ONPS)
 - ONPS Base Operating Appropriation: \$22,568,474
 - ONPS Non-base Funding: \$101,500
- Special Emphasis Program Allocation (SEPAS)
 - FirePro Base: \$1,601,032
 - Construction and Major Maintenance: \$580,523
 - Repair and Rehabilitation: \$3,825,368

Federal Lands Recreation Enhancement Act— 80% portion

- (FY-12) \$13,972,969
- (FY-13) \$14,775,466
- (FY-14) \$8,407,057 (collections reduced by LSI buy down)
- (FY-15) \$18,361,846
- (FY-16) \$15,215,281 (collections reduced by Pipeline reserve)
- (FY-17) \$11,739,334 (collections reduced by Pipeline reserve)
- (FY-18) \$16,263,449
- (FY-19) \$15,788,360
- (FY-20) \$16,411,907
- (FY-21) \$15,021,494

Federal Lands Highway Program: \$1,807,086

Income 2021

- Utilities Reimbursable: \$3,519,610
- Quarters: \$1,888,559
- Concession Franchise Fees—20% Portion: \$2,411,984
- Filming and Location Fees: \$1,980
- Donations (monetary): \$1,567,897
- Transportation (Shuttle Buses): \$5,194,821
- Other (reimbursable, refundable, etc.): \$1,281,396

National Park Service Staffing—FY 2021

Information and distribution of all staff (Permanent, Term, and Seasonal).

- Superintendent's Office: 16
- Administration: 28
- Science and Resource Management: 55
- Commercial Services: 15
- Planning, Environment, and Projects: 14
- Facility Management: 133
- Interpretation: 71
- Visitor and Resource Protection: 210
- Fire and Aviation Management: 42

Total National Park Service Staffing

- (FY-17) 382
- (FY-18) 452
- (FY-19) 372
- (FY-20) 503
- (FY-21) 584

Volunteers-in-Parks (VIP) Program

Volunteer hours by category

- Administration: 743.75
- Campground Host: 6,354.5
- Cultural Resource Management: 178.25
- Interpretation/Education: 726.5
- Natural Resource Management: 6,061
- Protection/Law Enforcement: 19,559

In-Kind Service Amount

- Total volunteers in park: 219
- Total hours: 33,623
- National value of each volunteer hour: \$28.54
- Total in-kind services: \$959,600.42



Partnerships and External Affairs

Gateway Communities & Counties

Flagstaff, AZ
Fredonia, AZ
Jacob Lake, AZ
Kanab, UT
Tusayan, AZ
Williams, AZ
Coconino County, AZ
Garfield County, UT
Kane County, UT
Mohave County, AZ
Washington County, UT

Philanthropic & Community Partners

Grand Canyon Conservancy
National Park Foundation
Arizona Trail Association
Grand Canyon River Guides
Grand Canyon Music Festival

Arizona Congressional Representatives

Senator Kyrsten Sinema
Senator Mark Kelly
First District Representative-Tom O'Halleran
Fourth District Representative-Paul Gosar

Traditionally Associated American Indian Tribes

Havasupai Tribe, AZ
Hopi Tribe, AZ
Hualapai Tribe, AZ
Kaibab Band of Paiute Indians, AZ
Las Vegas Band of Paiute Indians, NV
Moapa Band of Paiute Indians, NV
Navajo Nation, AZ
Paiute Indian Tribe of Utah, UT
San Juan Southern Paiute Tribe, AZ
The Pueblo of Zuni, NM
Yavapai-Apache Nation, AZ

State and Federal Partners

Arizona Game and Fish Department, AZ
Bryce Canyon National Park, UT
Bureau of Land Management, AZ/UT
Bureau of Reclamation
Flagstaff Area National Monuments, AZ
Glen Canyon National Recreation Area, UT/AZ
Grand Canyon Parashant National Monument, AZ
Kaibab National Forest, AZ
Lake Mead National Recreation Area, AZ
Pipe Spring National Monument, AZ
U.S. Geological Survey
Vermilion Cliffs National Monument, AZ
Zion National Park, UT

