

Grand Canyon National Park



AMWG August 2024





Superintendent Ed Keable

Painting our toenails
for luck at Lava rapids
NPS green works.





Park Overview

- **Park Size:** 1,218,375 acres
- **Colorado River:** 278 miles
- **Trails:** 595 miles
- **Roads:** 272 miles
- **Buildings:** 1,182 structures





2023 Park Statistics

- **Visitation: 4.7 million**
 - Colorado River User Days: 230,572
- **NPS Staff: 424**
 - Superintendent's Office: 18
 - Administration: 35
 - Science & Resource Management: 39
 - Commercial Services: 12
 - Planning, Environment, & Projects: 25
 - Facility Management: 116
 - Interpretation & Education: 33
 - Visitor & Resource Protection: 125
 - Fire & Aviation Management: 21
- **NPS Volunteers: 507**





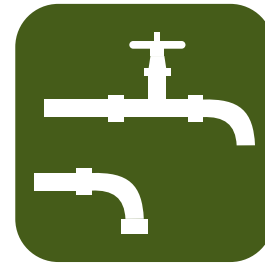
Park Priorities



Indigenous
Affairs



Climate Change



Infrastructure/
Historic Preservation



Operations



Indigenous Affairs

Eleven Tribes call
the Grand Canyon their homeland –
our coexistence.



Intertribal Working Group





Havasupai Gardens – Ha'a Gyoh





Lower Colorado River Cooperative Management

In 2023, the Hualapai, Grand Canyon, and Lake Mead Core Team reengaged and prioritized work on:

- Natural and cultural resources, including proposed research
- River management and operations
- Adaptive management, access and permitting



Photo by Grand Canyon West, Hualapai Tribe. <https://grandcanyonwest.com/explore/colorado-river-rafting/>



Climate Change

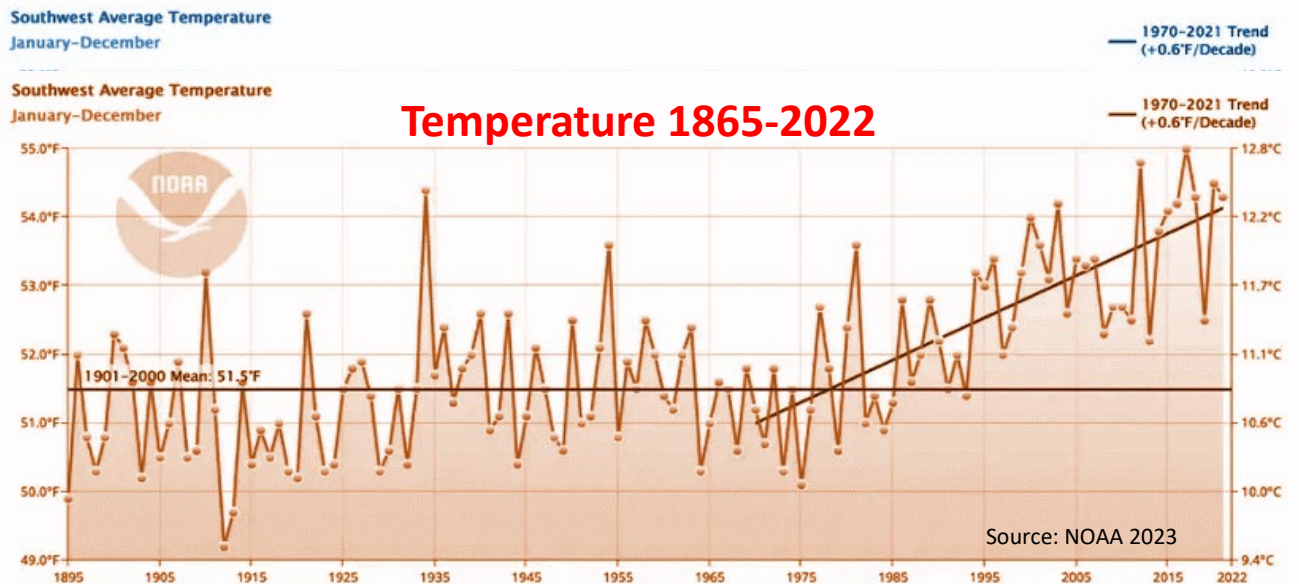
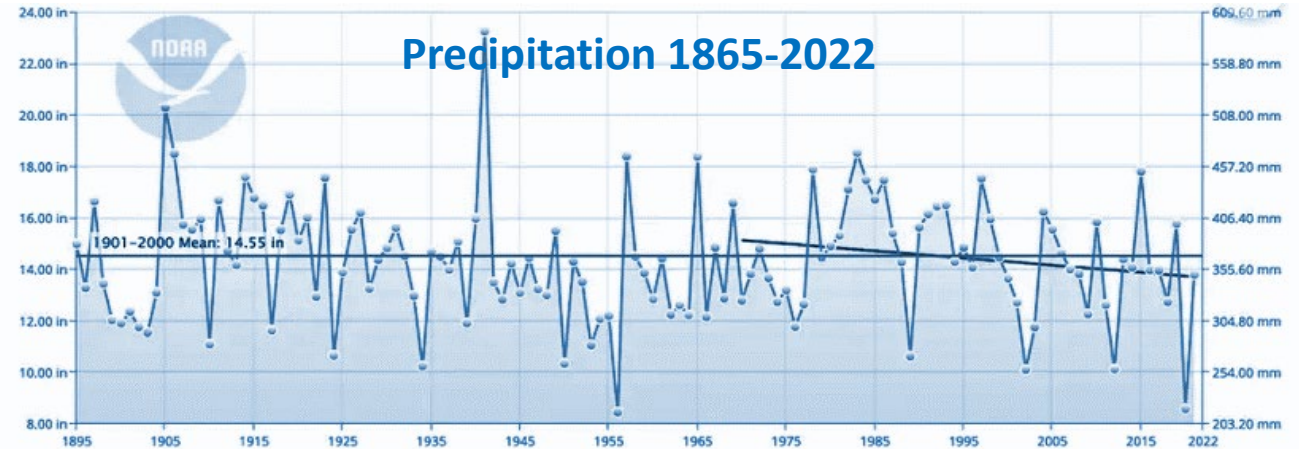


Dear great blue herons,
please fish for the Smallmouth Bass,
not the Humpback Chub.

Changing Experiences



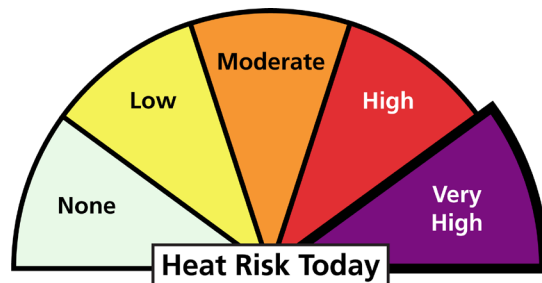
- Grand Canyon National Park warmed significantly from 1895-2020 (**+2.4° F overall**)
- In 2023, Phantom Ranch experienced **24 more days above 90°F (32.2 °C)** than a decade before
- July 2024 was the 2nd warmest and 2nd driest July on record



Source: NOAA 2023

Preventive Search and Rescue

- In 2024 there have been:
 - 223 Search & Rescue Incidents
 - 11 fatalities
- The NPS is collaborating with the National Weather Service to develop new ways to communicate heat risk.





Public Health and Commercial Services

35 days on the river in 2023:

- 6 Public Health inspections
- 17 Commercial Services evaluations

High Fives for the guiding community:

- Effective communication
- Safety on and off the water
- Respect and professionalism of guides during evaluations



Changing Forests



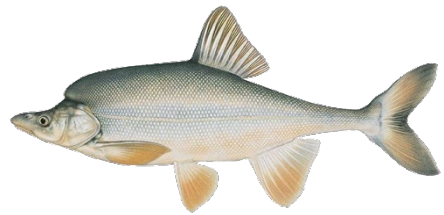
- Forest composition and habitat are experiencing fundamental changes due to:
 - Decreased snowpack
 - More wildfires, less opportunity for prescribed burns
 - Increased extreme events



Changing Waters



Fighting to protect



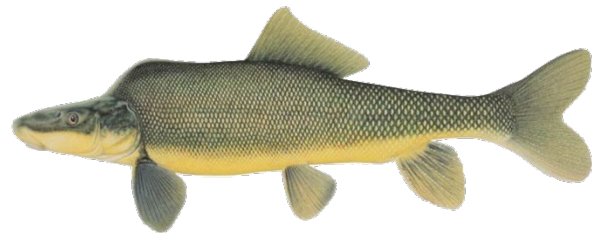
Humpback Chub



Flannelmouth Sucker



Speckled Dace



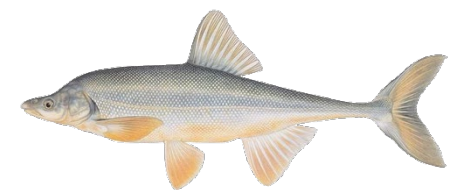
Razorback Sucker



Bluehead Sucker

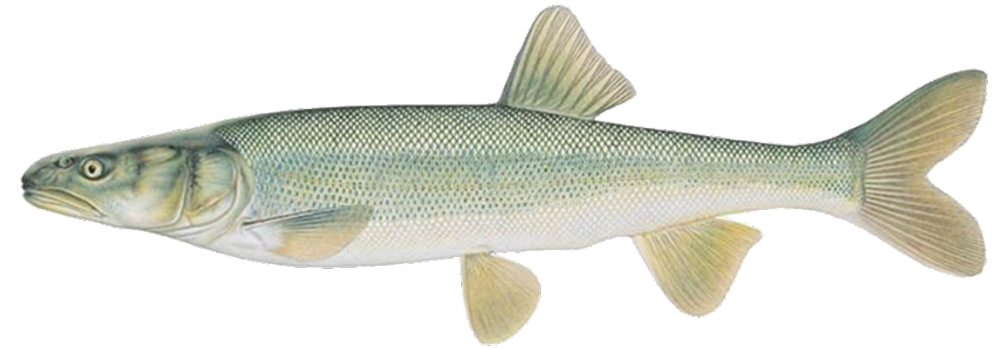


Roundtail Chub



Bonytail

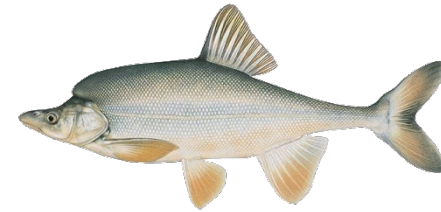
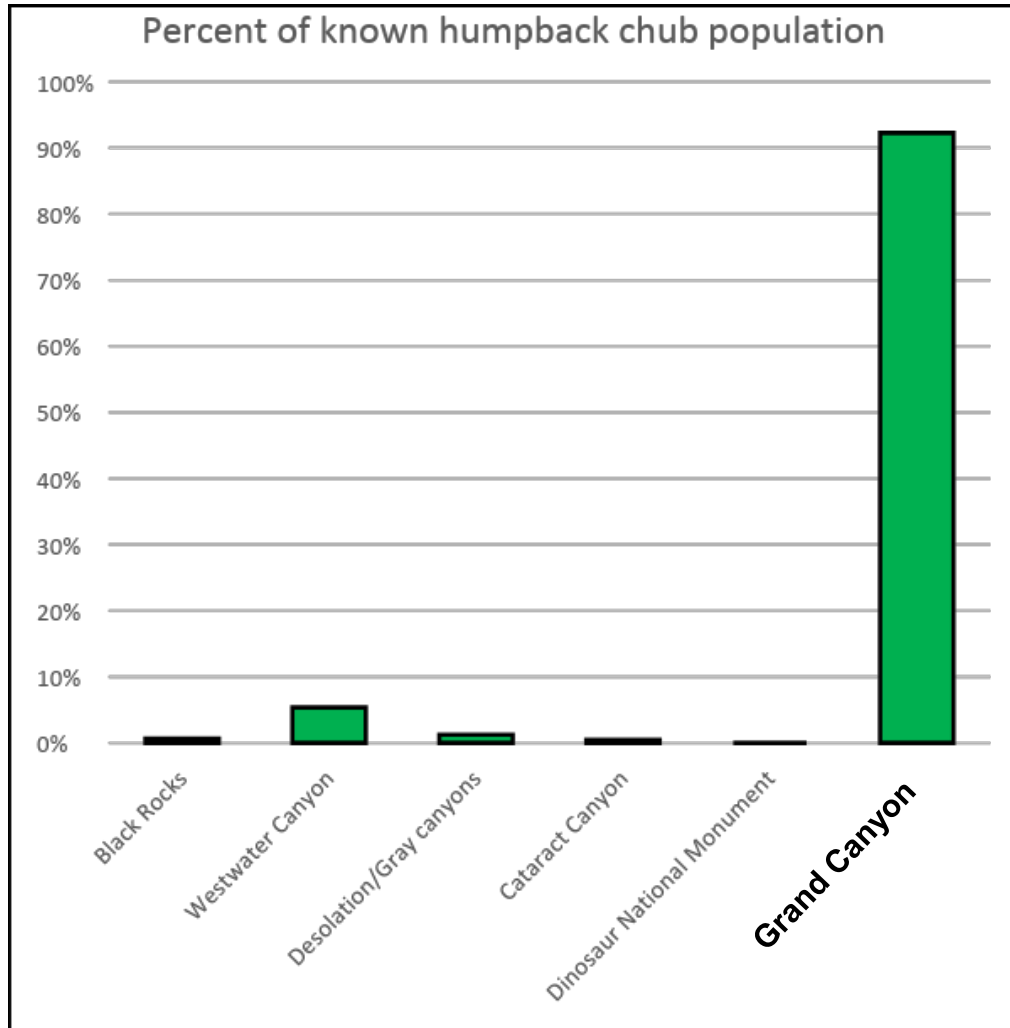
Already lost



Colorado Pikeminnow



Join the Chub Club!

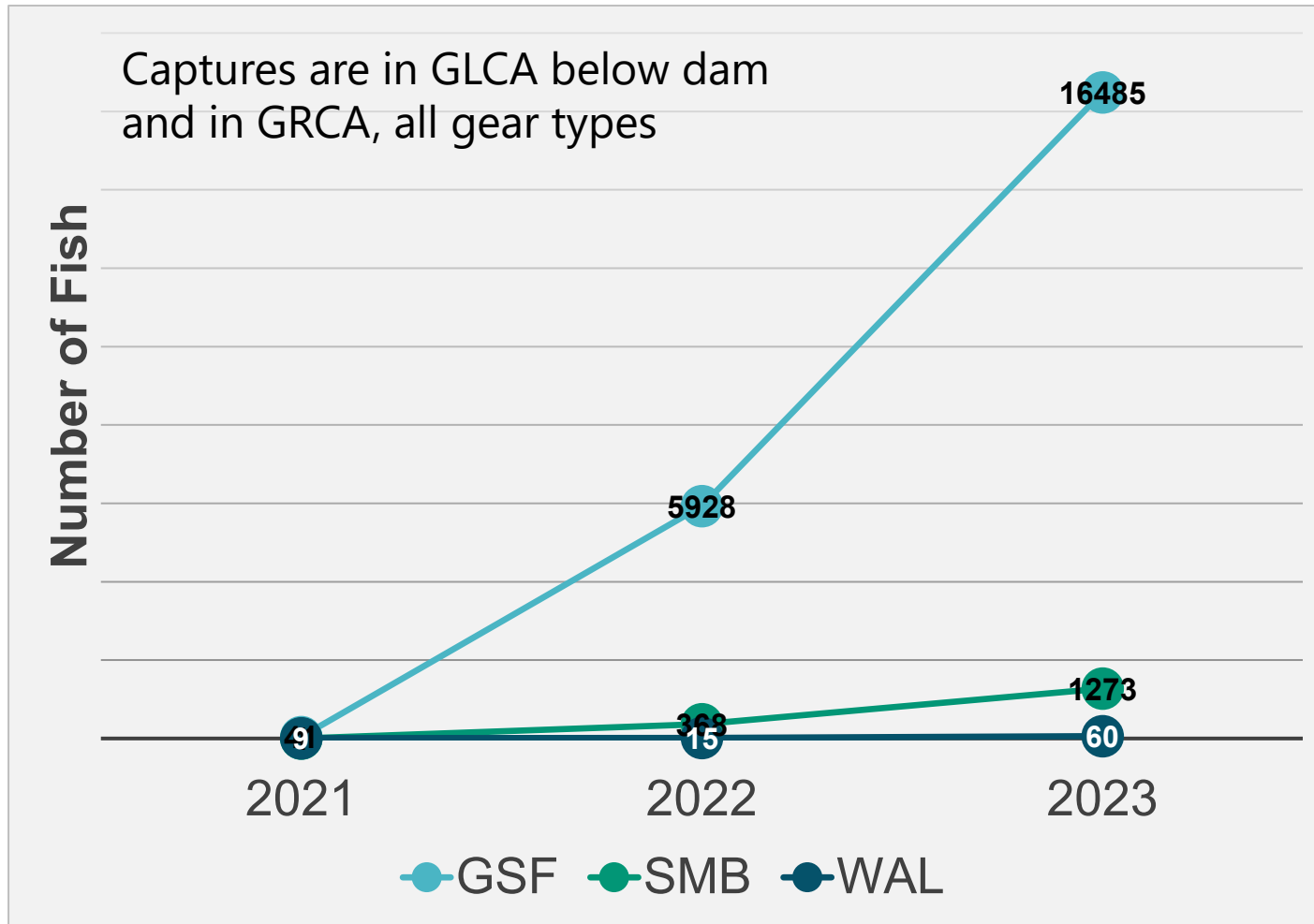


Humpback Chub
Federally Threatened

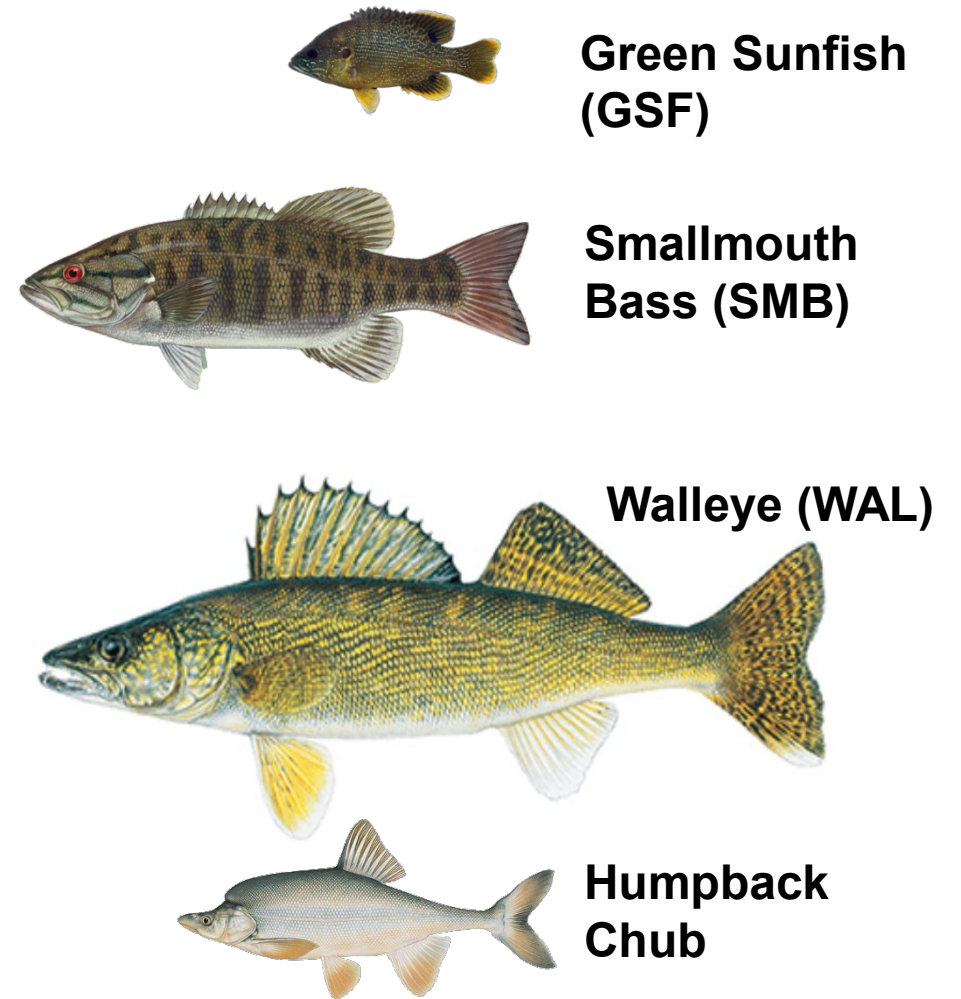
- Approximately 95% of the world's population is located in Grand Canyon
- Smallmouth Bass (SMB) present the highest potential impacts to Humpback Chub (*USFWS 2018 Species Status Assessment*)



Smallmouth Bass, Green Sunfish and Walleye



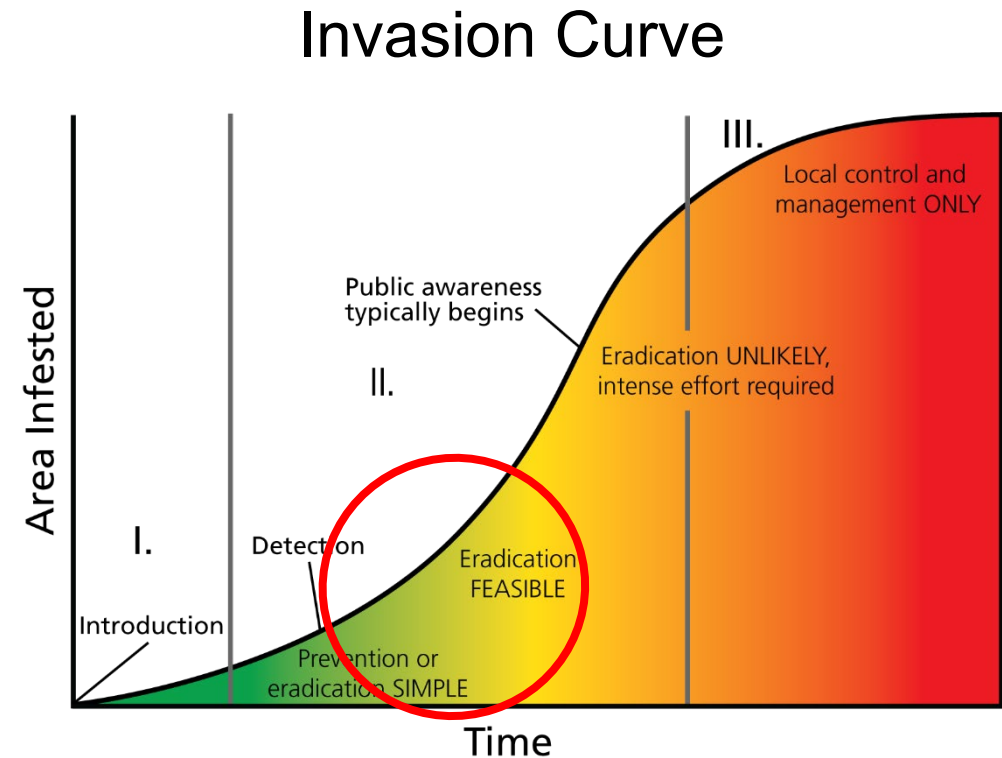
Preliminary data, subject to revision





Smallmouth Bass Rapid Response

- We have a limited time to act while it is efficient and less expensive
- If we wait, then the numbers of warmwater invasives will **increase exponentially**
- We can still prevent establishment of SMB if we use multiple actions now



Graph modified from Southwest Montana Science Partnership



2024 Native Fish Ecology and Conservation

- **Smallmouth Bass (SMB) Rapid Response:** efforts described earlier today
 - 7 caught in Grand Canyon in 2024, lowest capture at River-Mile 6.9
 - No young-of-year or spawning behavior observed in Grand Canyon
- **Humpback Chub Translocations:**
 - Havasu Creek has a reproducing population – high abundance of young-of-year and juvenile chub this spring
 - Will release additional chub in September
- **Razorback Sucker Experimental Releases:**
 - 1656 juvenile Razorback Sucker into tributaries – Havasu Creek (2023), LCR (2024)
- **Bright Angel Creek Trout Removal:**
 - 2nd lowest trout abundance since efforts began
 - Significant increases in native fish abundance and distribution





Cultural Resource Management: NPS and GCMRC

- 362 archaeological sites assessed since Glen Canyon Dam construction
- Management goal is to maintain archaeological site integrity in place
- Aeolian sand decreased since 1973, making most sites more erosion-prone
- Gully erosion increased since 2000

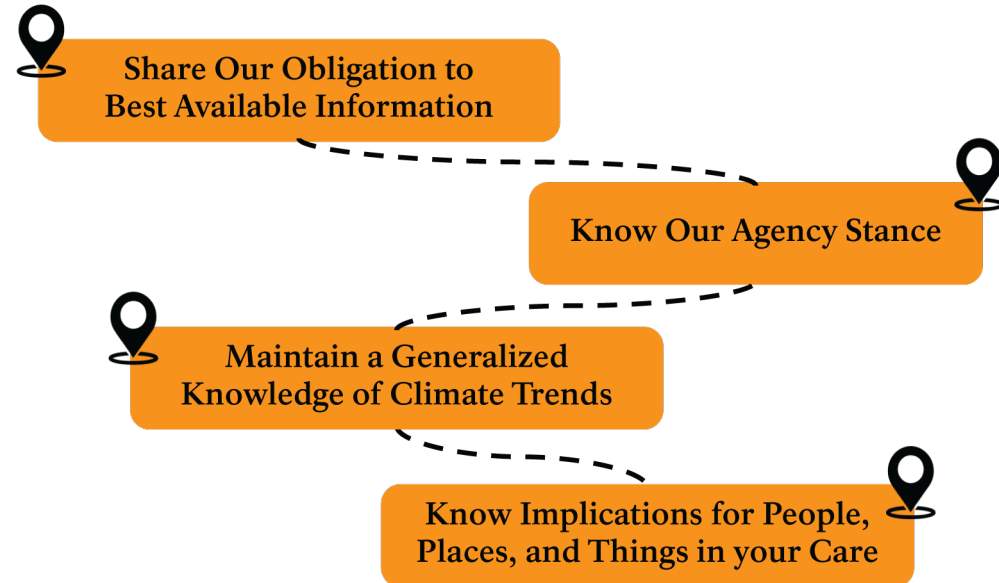
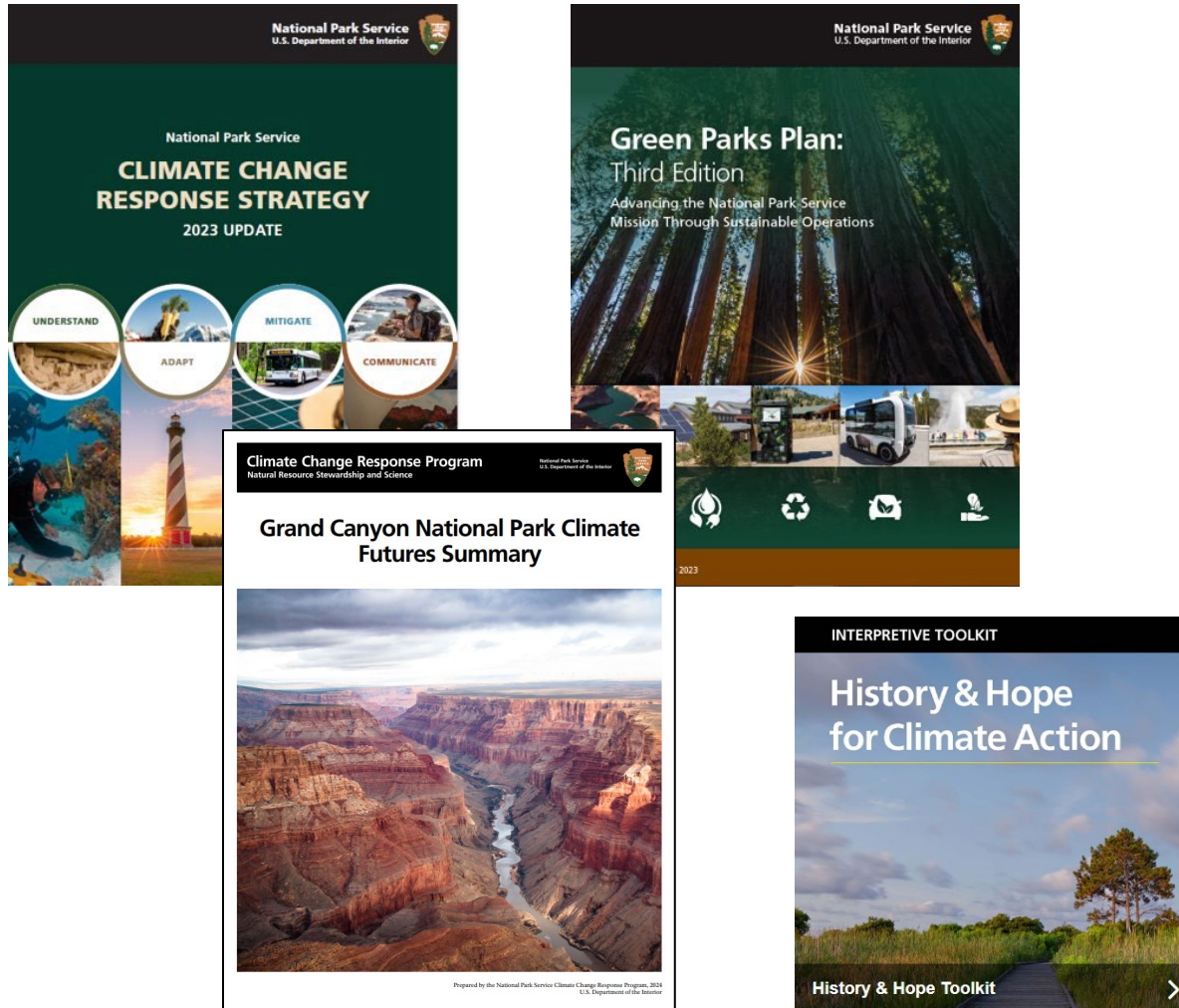
Environmental management opportunities:

- HFEs to increase sediment
- Low flows to promote aeolian transport
- Riparian plant removal to allow sand movement





Climate Change Communications





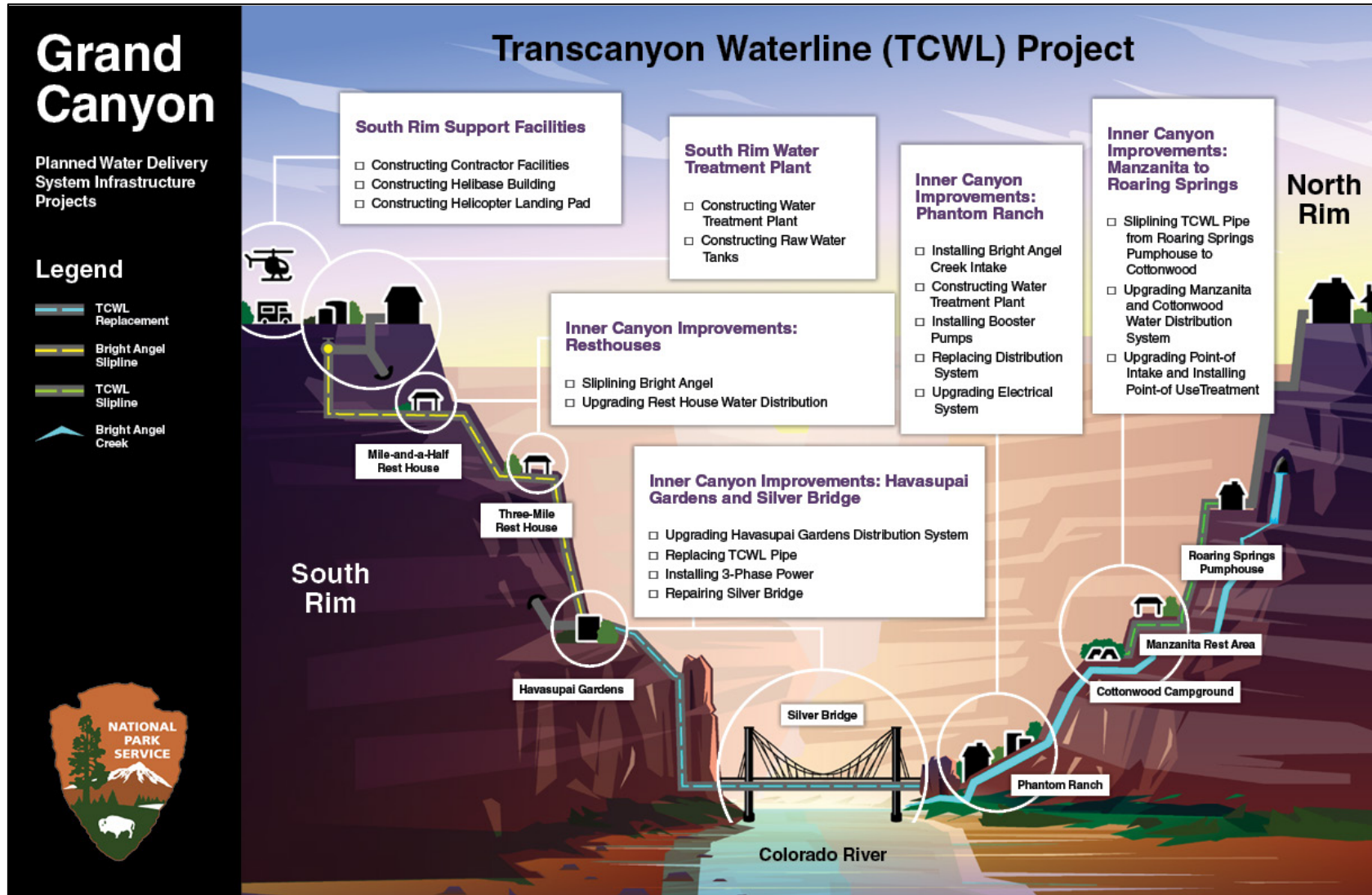
Infrastructure/Historic Preservation

Thundering rapids and quiet riffles alike - the river runs red.





Transcanyon Waterline Replacement 2023-2027

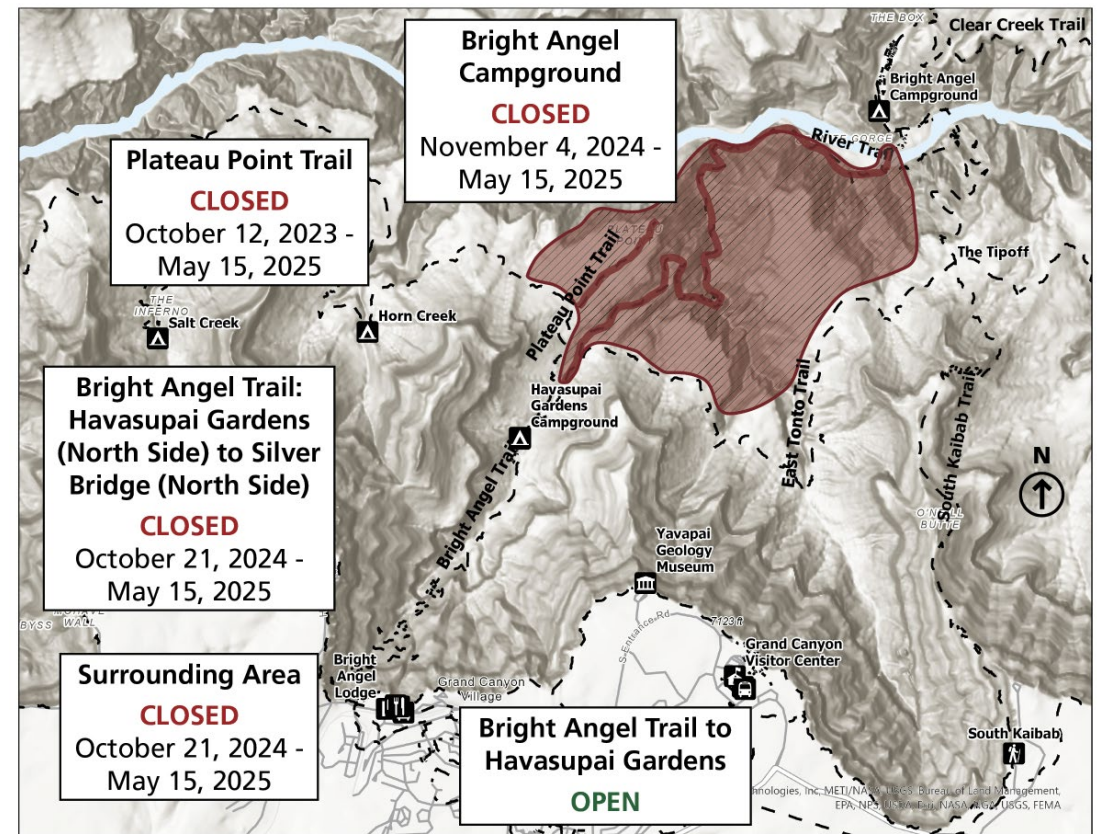




Transcanyon Waterline Replacement \$208M



Inner Canyon Trail and Campground Closures





North Rim Infrastructure Upgrades \$180M

- Water Delivery
- Wastewater
- Power Upgrades





Operations



The Bright Angel hike started with such eagerness, then the Sun came out.



Colorado River Management Plan (CRMP)



Whitmore Exchange Camp (RM 186.6)

2023 tasks to benefit natural and cultural resources and improve visitor experience:

- **Mitigate** vegetation on river camp trails, camping pads, and trails to rapid scouts and popular sights
- **Naturalize** social trails and camping pads in old camp high-water zones
- **Build** check dams to fill in the gully at Fence Fault high water camp
- **Assess** camps identified by GCRG for vegetation mitigation efforts
- Create a new camp near the heavily eroded GCY Camp (RM 274)



Trail Operations 2023 River Mission

Nankoweap Delta and Granaries:

- 42 stone steps rehabilitated
- 120 linear feet of liner to delineate trail through Nankoweap Creek
- 3 waterbars installed
- 1 mile of trail pruned
- 1 mile of de-rocked
- 3 social trails eradicated

Beamer and Tanner Trails:

- 2.5 miles of Beamer Trail pruned/brushed
- 3 miles of Tanner Trail de-rocked
- Evacuated Tanner compost toilet





Tapeats Creek Trail Rehabilitation

- 48 stone steps built
- 2.5 miles cleared of rock and debris
- 2.5 miles pruned/brushed
- Delineated multiple creek crossings
- Evacuated Upper Tapeats and Deer Creek Campground compost toilets





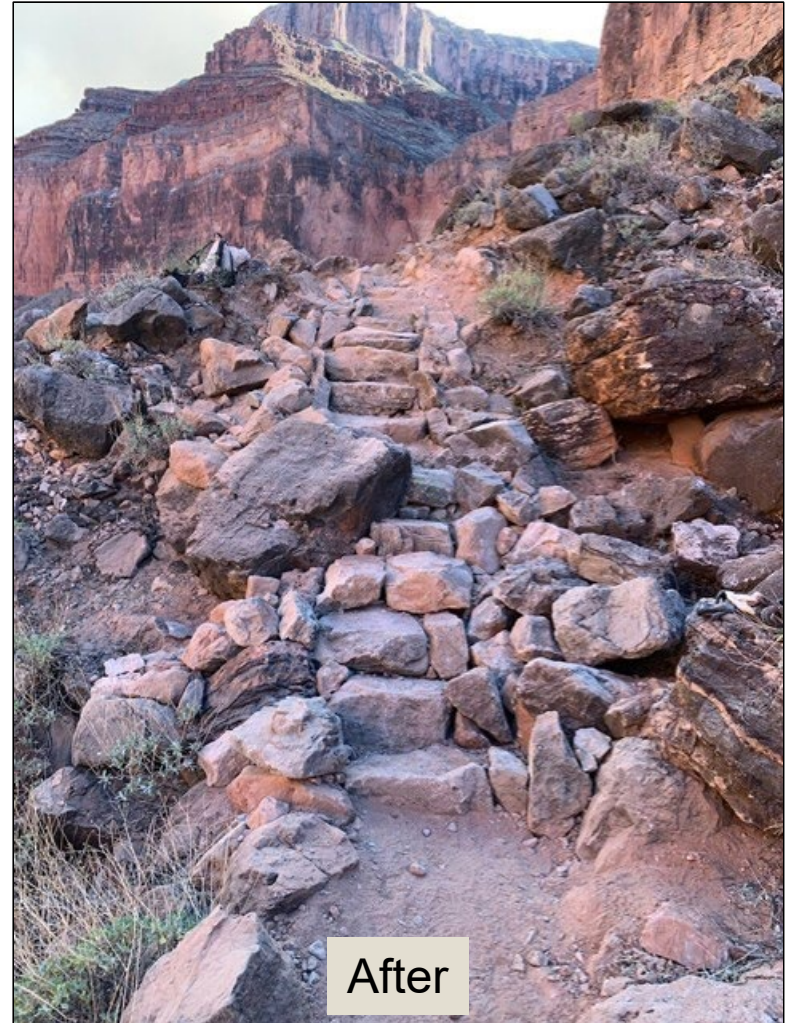
Tapeats Creek Trail Rehabilitation



Before



During



After



2023 Compost Toilet Evacuations

21,000 lbs of compost evacuated in 2023:

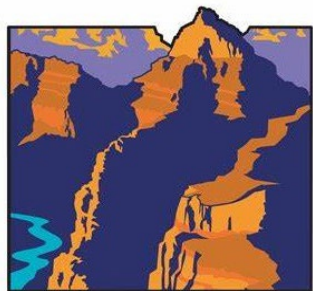
- Pt. Sublime – 1,000 lbs
- CC Hill – 900 lbs
- Hermit – 2000 lbs
- Cottonwood – 4000 lbs
- Phantom Ranch – 5000 lbs
- Deer Creek – 700 lbs
- Tapeats Creek – 700 lbs

40 Flights Total for Evacuations and Compost Operations





Partners



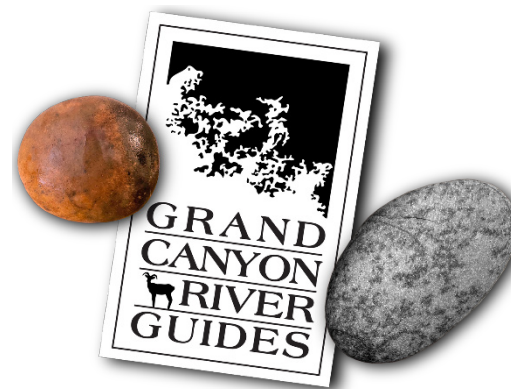
GRAND CANYON
CONSERVANCY



National Park
Foundation™



GRAND CANYON
TRUST





Grand Canyon National Park

Canyon walls reach up,
framing the bright Milky Way –
The river flows on.