



BY DAVID M. BROWN

Lightning adds a skyshow to the two-billion-year-old Earthshow of the Grand Canyon National Park, which comprises 1,904 square miles of the Colorado Plateau in northern Arizona. Photo courtesy of Xanterra Travel Collection

first embrace; spring rain at the break of winter; an aesthetic or religious experience; a revelation that illuminates your path into the future. Every visit to the Grand Canyon in northern Arizona equals the intensity of these moments: life-centering and challenging, terrifying but transformative. Backpack weary or spellbound from just a hop-out-of-the car overview, you are always changed after experiencing this grandest of Earth's places.

The side canyons, buttresses, temples and thrones, fluted rock and striations, eddies, waterfalls and rapids, sandstone and two-billion-year old schist reaffirm the conclusion of John Wesley Powell (1834–1902), the Civil War veteran, naturalist and explorer who first documented the canyon 150 years ago: "The wonders of the Grand Canyon cannot be adequately represented in symbols of speech, nor by speech itself. . . . Language and illustration combined must fail." (Canyons of the Colorado).

This February 26 and throughout 2019, we celebrate the centennial of the ineffably beautiful 280-mile-long Grand Canyon National Park (GCNP), offering all of us an opportunity to renew President Roosevelt's guidance. Ensuring that we leave it as it is and do not mar this UNESCO World Heritage Site are many individuals and organizations, profitdriven and not.

The Grand Canyon Conservancy (GCC), the official nonprofit partner of Grand Canyon National Park, was founded in 1932 by naturalist Edwin 'Eddie' McKee, a South Rim ranger who wanted to help preserve it.

The group has an internal environmental task force whose mission is to control and reduce environmental impact, working with the National Park Service (NPS) to develop strategies and goals to continue to protect and enhance GCNP.

"The goal of this committee is to reduce waste, reduce water consumption and develop and strengthen a culture of environmental protection," says Alysa Ojeda, GCC marketing and public relations manager. "To date, our maintenance crew has updated appliances to energy- efficient models and is replacing light fixtures and bulbs throughout our buildings to LED."

At the 4,500-foot-high South Rim, Denver-based Xanterra manages the Grand Canyon National Park Lodges, including National Historic Landmark El Tovar Hotel and the Grand Canyon Railway.

Xanterra recently completed a 38-kilowatt solar photovoltaic system on the roof of the purchasing warehouse supporting the lodging properties; it will generate II percent of the annual energy usage for the building.

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"We recognize and embrace the reality that we share the responsibility to make sure that future generations can visit and enjoy the Grand Canyon, its historic hotels and buildings, its rugged beauty and its spiritual and educational value," says David Perkins, the company's director of sustainability.

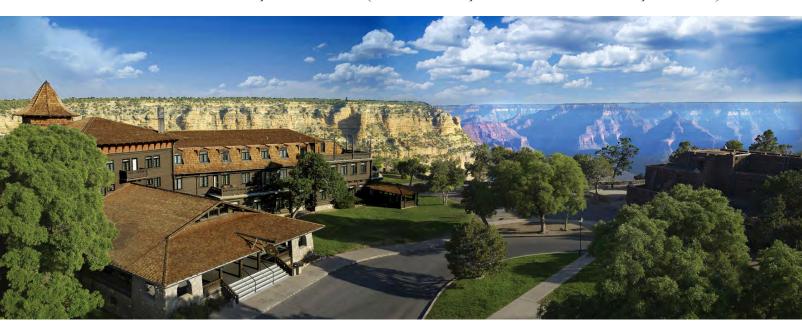
About 1,200 feet higher is the Grand Canyon Lodge North Rim, managed by Scottsdale-based Forever Resorts. Its general manager, Mike Kidd, says, "Across all properties we operate, environmental stewardship has been a consistent and growing

that approximately \$335 million of environmental infrastructure improvement projects are needed just to meet current visitor needs inside GCNP.

To mitigate the environmental and social impacts from six million annual visitors, NPS implements a shuttle bus service to move visitors around the park, which minimizes auto use/congestion/air quality impacts while improving access to overlooks and visitor services without requiring new roads and parking facilities, he explains.

"Leave it as it is. Man cannot improve on it; not a bit. The ages have been at work on it and man can only mar it."

-Teddy Roosevelt (Grand Canyon South Rim, May 9, 1903)



Designed by Charles Whittlesey, chief architect for the Atchison, Topeka, and Santa Fe Railway, the El Tovar hotel is a National Historic Landmark and is also on the National Register of Historic Places. Opened in 1905, the hotel was part of the famous Fred Harvey Company chain. Adjacent is Hopi House, designed by Mary Colter (1905), inspired by the centuries-old pueblo dwellings of the Hopi village in Old Oraibi. Photo courtesy of Xanterra Travel Collection

focus over the years. Whether it's sustainably sourced ingredients for our restaurant or our comprehensive recycling program, we aim to ensure Grand Canyon's enchanting North Rim remains viable for visitors permanently."

Arizona native, University of Arizona graduate, and Tucson resident David Schaller has been associated with the Grand Canyon National Park for more than 40 years.

"The environmental legacy of the park is perhaps that it has thus far successfully endured a century plus of ongoing threats due to commercial exploitation, overcrowding and related infrastructure challenges without being indelibly scarred in some way," says Schaller, who first worked as a National Park Service (NPS) seasonal laborer in the 1960s before his 30-year career as an environmental scientist for the EPA.

"Many say our national parks, Grand Canyon included, are being loved to death," he adds, citing a Cronkite News report Sustainability efforts are also ongoing by The Grand Canyon Resort Corporation at Grand Canyon West, outside the Grand Canyon National Park two hours south of Las Vegas. Founded in 1988 and owned by the Hualapai Tribe, Grand Canyon West attracts more than a million visitors to the remarkable Grand Canyon Skywalk and other attractions.

"The Grand Canyon Resort Corporation and the Hualapai Tribe have worked for many years to balance bringing people to the Grand Canyon to experience nature's beauty and preserving the canyon's fragile environment and its cultural significance," says Colin McBeath, CEO of the Peach Springs, Arizona-based company.

Reducing helicopter noise from the Canyon rim is an example. "By setting the helicopter landing areas back away from Eagle Point and Guano Point, we have been able to preserve the sounds of nature and the peacefulness of the canyon," he explains.



Designed by Mary Colter in 1914, Lookout Studio is built on a precipice on the South Rim, its stone and log timbers echoing the rugged lines of the Grand Canyon. Here visitors observe and photograph and wonder. Photo courtesy of Xanterra Travel Collection

Water is a "looming environmental issue," McBeath adds. "We have done everything in our power to conserve water, including limiting consumption and installing low-flow plumbing at considerable expense."

Other water challenges at the park include upgrading the 12-mile pipeline serving the South Rim facilities from the North Rim's Roaring Springs, itself threatened by diminishing groundwater supplies because of climate change, Schaller explains. He adds that rising temperatures also intensify drought, wildfires and species loss.

"In addition, recurring proposals and projects for mineral extraction, primarily uranium, across public lands just outside of park boundaries threaten the water supplies of the Havasupai Nation and the greater Grand Canyon ecosystem," he says. The Indigenous Havasupai, "people of the blue-green waters," have lived inside the canyon for at least 800 years.

"The Grand Canyon will outlast humanity; that we know," he concludes. "However, the enduring legacy of the Grand Canyon National Park, its life-sustaining water resources and the human amenities that now help define it, will be the extent to which we humans choose to protect it from ourselves."

Brown is an Arizona-based freelance writer (azwriter.com). Because of the federal government shut-down at the time of writing, no one from the NPS was available to offer comment, although the South Rim remains open, funded through recreation fees. The North Rim is closed in the winter. See nps.gov/grandcanyon for information about accessibility and available services.

