

## NATIONAL CONSERVATION LANDS: CONNECTING LANDSCAPES AND SERVING COMMUNITIES

### Haley Freeborn

**Hailing from the Appalachian Mountains of southwestern Virginia, my perspective of public lands is rooted in an eastern upbringing.** I grew up with the Appalachian Trail, New River, and Jefferson National Forest in my backyard. These natural spaces were not the distant, idyllic destinations seen in car ads and computer wallpapers. These were the familiar and ancient landscapes with an ever-present backdrop: second-growth forests, weathered mountain tops, quiet creeks, power-line roads, and relic meandering trails leading to no viewpoint in particular.

These were the places where I ran with my cross-country team after school, mountain biked after work, and guided rafting trips at my first summer job.

These were my community's public lands: spaces of timeless beauty and everyday meaning.

This presence of public lands in my everyday childhood life grew into a desire to help others share in that same experience. Once I was old enough, I served as an outdoor guide for the local town-run adventure camp, leading youth whitewater paddling, caving, and mountain biking. This experience as an educator deepened my appreciation

Hikers in Dominguez-Escalante National Conservation Area, Colorado. BOB WICK, BLM





Lizard in Dominguez-Escalante National Conservation Area, Colorado. BOB WICK, BLM

for public lands and sparked my interest in understanding how these spaces are managed to balance visitor experience, conservation, and access.

For three summers, I served as a research assistant for a recreation ecology study led by Virginia Tech. Travelling to Desolation Wilderness in California, Crater Lake National Park in Oregon, and Mount Assiniboine Provincial Park in British Columbia, Canada, our team assessed the ecological impacts of recreational use. We studied the effects associated with trails and campsites, identifying sustainable solutions that allow for increasing visitation while minimizing environmental impact. Solutions were as diverse as the landscapes themselves. The design of campsites and trails should be adapted to the park, its specific resources, and pressures, such as landscape topography, visitation patterns, and ecosystems. Joined by social psychologists, backcountry rangers, and staff from partner groups, I saw how collaboration across disciplines is essential to effective public lands management.

I witnessed how this research is applied during my summer internship in 2023 with the Planning Division of the National Park Service's (NPS's) Denver Service Center. Serving as a project specialist on the visitor use

management and socioeconomic team, I helped develop several park management plans for NPS units across the country. I saw firsthand how the data I collected guide long-term management strategies. A cohesive vision for public land use requires coordinated consideration of environmental, social, and economic factors. I was struck by the depth of deliberation that goes into every management decision in parks, from the placement of a single trail sign to the design of a park-wide visitor experience. Surrounded by intelligent, creative, and impassioned professionals with diverse backgrounds and career paths, we shared a deep personal connection to nature and a commitment to protecting public lands.

From 2024 to 2025, I served with the Bureau of Land Management's Division of National Conservation Lands. This role offered me a unique opportunity to engage in national-level planning while also witnessing how those strategies are implemented on the ground. At headquarters, I supported system-wide strategic planning efforts for National Conservation Lands and developed educational materials to help the public understand the history and purpose of National Conservation Lands as a system. At the field-level near Grand Junction, Colorado, I got to contribute to the vital work that brings this

vision to life: releasing fish at Gunnison Gorge National Conservation Area, removing graffiti in slot-canyons at Grand Staircase-Escalante National Monument, and leading an environmental education hike for local high schoolers at Dominguez-Escalante National Conservation Area. My involvement at both the national and field level underscored the importance of connecting system-wide strategies with the everyday, unit-specific efforts that make public lands meaningful and accessible to the communities they serve.

Today, there is a need for National Conservation Lands to embrace cross-jurisdictional, landscape-level management, grounded in science and enabled by geospatial technologies. Landscapes do not align with agency boundaries. Wildlife migration corridors, climate patterns, and watersheds operate independently of jurisdictional lines. Yet too often, management efforts are constrained by these invisible superimposed divisions. Tools, like a Geographic Information System (GIS), offer the ability to integrate disparate datasets and reveal large-scale patterns affecting National Conservation Lands, from visitor use trends to habitat connectivity and the growth of gateway communities. When applied effectively, geospatial analysis equips agencies to prioritize projects, allocate resources more efficiently, and coordinate with neighboring jurisdictions to meet shared goals.

But data alone aren't enough. The conclusions we draw are only as good as the data we collect, and as astute as the context we bring to them. There's a need to continually return to the original vision for each unit: why these places were designated, which unique values they were designed to protect, and what the challenges to or opportunities for realizing those values are today. Our designating language may be timeless, but our management must evolve.

Ultimately, we must reinforce the idea that National Conservation Lands are not remote preserves, but units within broader, ever-evolving landscapes managed through a mosaic of jurisdictions. These public resources support recreational access, protect wildlife habitat, preserve cultural heritage, and provide economic benefits. Inextricably connected to the daily lives of the communities that surround them, they are the parks behind schools, trailheads just outside town, river access for local kayakers and anglers, and the inspiration for future generations of neighborhood stewards. To ensure National Conservation Lands remain protected and accessible for future generations, our strategies must rise to meet the scale of landscape-level challenges while reflecting the local, everyday connections surrounding communities have with these public lands.

**Haley Freeborn** is the GIS Lead for Colorado Trail Explorer (COTREX) at Colorado Parks and Wildlife, where she manages statewide geospatial trail data to support land managers, outdoor recreation, public safety, and habitat protection.

