

# Building the Future

A Guide for Utilizing the Recreational Trails Program  
to Partner with Service and Conservation Corps | Spring 2019



**The  
CorpsNetwork**

Strengthening America through  
service and conservation

# Building the Future

## A Guide for Utilizing the Recreational Trails Program to Partner with Service and Conservation Corps

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Spring 2019



The Corps Network  
1275 K Street, NW - Suite 1050 Washington, DC 20005  
[www.corpsnetwork.org](http://www.corpsnetwork.org) | [@TheCorpsNetwork](https://twitter.com/TheCorpsNetwork) | [#CorpsWork](https://twitter.com/CorpsWork)  
202.737.6272

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Corpsmembers with Utah Conservation Corps. [See page 20.](#)

## Introduction

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### About Service and Conservation Corps

#### What is a Corps?

Corps are locally-based organizations that engage young adults (generally ages 16 – 25) and veterans (up to age 35) in service projects that address conservation, disaster response, and community needs. Through service to our country, Corps participants – or “Corpsmembers” – gain work experience and develop in-demand skills. Corpsmembers are compensated with a stipend or living allowance and often receive an education award or scholarship upon completing their term of service. Additionally, Corps provide educational programming, mentoring, and access to career and personal counseling.

By annually engaging thousands of young adults and veterans in education and service, Corps...

- Increase access to public lands and waters
- Build and enhance multi-use trails
- Support productive fish and wildlife habitats
- Increase recycling and revitalize neighborhoods
- Restore communities and resources following disasters
- Prevent and fight wildfires
- Create and maintain parks and recreational spaces
- Remove invasive species
- Address the maintenance backlog on public lands
- Weatherize homes for money-saving resource efficiency



## About The Corps Network

Established in 1985, The Corps Network is the National Association of Service and Conservation Corps. Our 130+ Corps provide young adults and veterans the opportunity to serve our country through projects on public lands and in rural and urban communities. The Corps Network supports Corps by advocating on their behalf, providing access to funding and projects, and offering expertise in Corps operations and programming.

**Our Mission:** The Corps Network advances programs that transform young people's lives and communities through career development, conservation, and civic engagement.

**Our Vision:** A high-quality Corps serving every community in America.

## AmeriCorps

Operated by the federal agency the Corporation for National and Community Service, AmeriCorps is a volunteer service program supported by the U.S. federal government, foundations, corporations, and other donors. Nonprofits, universities, and other organizations across the country receive AmeriCorps funding to engage people in up to a year-long term of service addressing critical community needs. AmeriCorps members partake in activities that include, but are not limited to, mentoring and tutoring youth; responding to disasters; fighting poverty; increasing access to healthy foods; and restoring habitats. Many Service and Conservation Corps that are members of The Corps Network receive AmeriCorps funding to support the engagement of Corpsmembers in conservation, transportation, and recreation enhancement programs.

The Corps Network is an AmeriCorps National Direct Grantee, meaning The Corps Network receives AmeriCorps funding which is then sub-granted to member Corps. With support from AmeriCorps, The Corps Network launched the Transportation and Infrastructure Program (TIP) in 2018. Through TIP, Corps across several states will annually engage over 100 diverse youth and young adults in public lands and transportation infrastructure projects. Corpsmember service activities will specifically focus on increasing access to and utilization of our public lands and waters, and promoting transportation alternatives, enhancements, and safety.

## Why Partner with Service and Conservation Corps?

Corps are a common-sense partner for transportation and resource management agencies. Corps are effective and show up ready to work. They manage their own crews, insurance, and recruitment. Given tight budgets, engaging Corps can help increase the capacity of transportation and resource management agency staff to focus on other priority areas. By bringing matching funds and community support to projects, Corps are cost-effective partners towards meeting transportation and recreation priorities.

For example, one federal land management agency found that using Corps saved, on average, 65 percent over using their own crews, and 83 percent over contractor crews. Ninety percent of 1,500 nationwide Corps project partners evaluated the work of Corps as "good or outstanding," while virtually all federal project partners (99.6 percent) said they would work with Corps again. Additionally, partnering with Corps gives transportation and recreation agencies the chance to

engage the next generation of diverse trail, transportation, and recreation professionals. Corps are embedded in their communities; around half of Corpsmembers are female and roughly half identify as persons of color. Corps offer an opportunity for diverse young people and veterans to, through service, gain hands-on work experience on the path to careers.

## Why Should Corps Partner with their State Trail and Transportation Administrators?





Corps enroll youth, young adults, and veterans in service to their communities and public lands. By serving on trail, transportation, and recreation improvement projects with state trail and transportation management agencies, Corpsmembers receive transportation and recreation workforce training and learn new trail-building skills. Corpsmembers have the opportunity to learn about careers in the outdoor recreation economy and network with professionals in resource management.

## About the Recreational Trails Program

The Recreational Trails Program (RTP) provides funds to the states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail use. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation, including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheeler driving, or using other off-road motorized vehicles.

## Department of Transportation Strategic Plan Priorities

The U.S. Department of Transportation (DOT) established strategic goals and objectives to reflect the Secretary's priorities for achieving DOT's mission of ensuring safe and efficient modern transportation systems, improving the quality of life for all American people and communities, and increasing the productivity and competitiveness of American workers and businesses through four strategic goals:

-  **Safety:** Reduce transportation-related fatalities and serious injuries across the transportation system.
-  **Infrastructure:** Invest in infrastructure to ensure mobility and accessibility and to stimulate economic growth, productivity and competitiveness for American workers and businesses.
-  **Innovation:** Lead in the development and deployment of innovative practices and technologies that improve the safety and performance of the nation's transportation system.
-  **Accountability:** Serve the nation with reduced regulatory burden and greater efficiency, effectiveness and accountability.

Corpsmember project work and success stories featured in this document align closely with the DOT priorities outlined above.

## Overview of National Benefits

From a review of RTP-funded projects, the FHWA identified the following “National Benefits” of providing quality trails in our communities and across public lands. The case studies in this document are organized based on these National Benefits. Throughout this document are descriptions of these benefits taken from the 2017-2018 Recreational Trails Program Annual Report,<sup>1</sup> as well as the 2019 Annual Report (marked by asterisks).<sup>2</sup> These reports are produced by the FHWA.

### National Benefits

- Accessibility
- Community Connections\*
- Economic Development
- Environmental Education
- Habitat Improvement\*
- Partnership Development\*
- Public Land Stewardship\*
- Repair and Rehabilitation
- Resiliency
- Safe Recreation\*
- Safety and Quality of Life\*
- Workforce Development

## The Purpose of this Guide

The purpose of this guide is to acquaint state administrators and transportation agencies with the benefits of employing Corpsmembers on transportation projects, and to encourage the use of Service and Conservation Corps in state-funded trail programs. Our goal is to build upon the success Corps have had with RTP-funded projects and expand the number and quality of trail and transportation projects Corps complete in partnership with state administrators. This guide presents a variety of RTP-funded projects completed by members of The Corps Network. Each project example highlights a best practice that closely aligns with DOT’s strategic goals and national trail benefits. By encouraging the use of Corps, we hope to strengthen transportation and recreation career pathways for a younger and diverse workforce.

## Key Terms

The following key terms were extracted from the project examples in this document and will be listed at the beginning of each case study as a user-friendly way to assist in identifying specific transportation project narratives. Read definitions of these terms on [page 55](#).

- Accessibility
- ATV and OHV Trails
- Bike Trails
- Boardwalks & Bridges
- Drainage Design
- Ecosystem Protection
- Historic Preservation
- Interpretation
- Logging
- Mechanical Operations
- Multi-Use Trails
- National Scenic and Historic Trails
- Rock Work
- Single-Identity Crews
- Ski and Snowmobile Trails
- Trail Assessment
- Tribal and Indigenous Communities
- Vegetation Management
- Wilderness Stewardship





# Accessibility

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RTP funds have been used in every state to improve the accessibility of trails for persons with disabilities to make communities, trails, and recreation facilities more available to all. These projects have also highlighted the needs of older people, families with children, and those who are new to trail activities.

## Case Study: The All-Sensory Trail Maryland Conservation Corps (Maryland)

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### Key Terms

- Accessibility
- Interpretation
- Vegetation Management

### Project Partners

- National Park Foundation
- Patapsco Valley State Park

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### DOT Strategic Goal Alignment



Innovation



Safety

### Best Practices

This case study provides an excellent example of how Corps can pair older and more experienced Corpsmembers with younger Corpsmembers. Older Corpsmembers act as mentors and can help train newer enrollees.



Left: Visitors use a guide rope at the All-Sensory trail (The Baltimore Sun); Right: MCC Corpsmembers at work.

## Background

Maryland Conservation Corps (MCC) members designed and constructed the All-Sensory Trail at Patapsco Valley State Park in Catonsville, MD from 2012-2014. The trail is one-tenth of a mile and compliant with accessibility guidelines under the ADA (Americans with Disabilities Act) and ABA (Architectural Barriers Act). This trail is universally accessible, enabling visitors of all abilities to interact with and experience the great outdoors. The project was funded by an RTP grant, as well as by various sponsors via a grant from the National Park Foundation. The trail was designed to actively engage multiple senses through a series of interactive natural experiences, including interpretive signage in Braille, tactile gardens, and soundscapes.

## Project Work

In order to make this trail safe for a multitude of visitors, large rocks needed to be removed from the path. Corpsmembers faced difficulties in removing all the rocks, but were able to overcome these hardships with persistence, strong backs, and hard work. Heavy equipment was occasionally needed for extra power. The MCC members used some of the large rocks they removed to define the sides of the trail.

MCC enlisted help from the Conservation Jobs Corps (CJC) summer program to complete the trail construction. The CJC is a five-week job skills training program for underserved youth ages 14-17. All of the CJC participants at this site at Patapsco Valley State Park were from Baltimore City. The older, college-aged MCC Corpsmembers served as mentors for the CJC crew and helped teach them job skills while engaging them in completing the trail project. Both MCC and CJC Corpsmembers still maintain the trail today to keep it free from downed limbs, poison ivy, and invasive plants. They have also helped repair the structures and added new elements.





MCC Corpsmembers at work.

## Outcomes and Successes

The All-Sensory Trail expanded access to the Star-Spangled Banner and Captain John Smith Chesapeake national historic trails; targeted populations traditionally underserved by the National Park Service; and engaged program participants in meaningful watershed experiences. This trail allows visitors to more fully experience the outdoors and provided jobs skills training to MCC and CJC participants.

Visitors can traverse the trail via wheelchair on a wide, flat, wood chip-based surface. Visually impaired visitors can hold a guide rope the entire length of the trail and stop along the way to read Braille interpretive signs. All visitors can enjoy playing the drums and chimes placed along the trail. A visual centerpiece for the trail is an insect hotel which serves to educate visitors about the importance of insects. Along the path are plants to touch, including velvety lamb's ear, which is placed in wheelchair-height planter boxes. There are also smells to enjoy, such as lavender, and a few herbs to taste as well.

## For More Information

### **Maryland Conservation Corps**

[www.dnr.maryland.gov/publiclands/Pages/mcc.aspx](http://www.dnr.maryland.gov/publiclands/Pages/mcc.aspx)

580 Taylor Ave.  
Annapolis, MD 21401  
(877) 620-8367





## Community Connections

Public health researchers have been working hard to explore the effects of trails on communities. In the last few years, many have found that communities which provide convenient access to places for physical activity, such as trails connecting to parks or other recreational facilities, increase the level of physical activity in their residents. In addition to providing recreation and health benefits, trails and greenways can function as nonmotorized transportation corridors to help pedestrians and cyclists access schools, workplaces, and neighborhoods. In every State, cities, towns, and counties are working to plan and build interconnected networks of trails.

### Case Study: Safety and Stewardship on California’s Community Trails - The Arcata Ridge Trail and Lassen Volcanic National Park Peak Trail California Conservation Corps (California)

#### Key Terms

- Ecosystem Protection
- Mechanical Operations
- Rock Work
- Vegetation Management

#### Project Partners

##### Arcata Partners

- City of Arcata Natural Resources Dept.
- Humboldt State University

##### Lassen Volcanic National Park Partners

- John Muir Charter School program
- National Park Service

#### DOT Strategic Goal Alignment



Innovation



Safety

#### Best Practices

These case studies provide examples of:

- Widening a trail to allow safe passage of hikers and to protect rare vegetation.
- The National Park Service recognizing each Corpsmember’s service by providing them a certificate upon project completion.



California Conservation Corps Corpsmembers serving on the Lassen Peak Trail.

## Arcata Ridge Trail

### Background

The California Conservation Corps (CCC) Fortuna Campus was hired by the City of Arcata, CA to construct a new trail within the Arcata Community Forest using RTP funds. The City of Arcata is located approximately five hours north of San Francisco and is home to Humboldt State University. This small college town has committed to improving nonmotorized transportation within the city and the surrounding area. They have contracted with the CCC on many projects to ensure that young people from the CCC Fortuna Campus have the opportunity to do meaningful work in the Arcata community.

### Project Work

The goal of this project was to build 0.53 miles of hiking trail in order to close a gap in the trail system at the ridgeline of the Community Forest. By closing this gap, the city was able to offer hiking access to the previously inaccessible ridgeline. The new trail provided hikers with an easier mode of travel compared to the steep gradient of the previous "Ridge Road" trail.

The City of Arcata used RTP funds to pay for the CCC member labor. The amount contracted between the parties amounted to 200 hours of member labor or \$4,000 in total. The City of Arcata provided staff to provide guidance and direction on the trail labor. The CCC Crew Supervisors worked with the city's staff to ensure the Corpsmembers learned the required techniques and executed the work to satisfaction. The end result was a completed trail to add to the Arcata Community Forest trail system.

### Outcomes and Successes

The Corpsmembers learned about trail construction, appropriate tools for trail work, the city's Community Forest priorities, and how to prioritize visitor and public safety while still completing the work at hand. At the same time, the Corpsmembers worked with city employees who engaged them in conversations about how to pursue a career in the city's Natural Resources Department.

Using CCC Corpsmembers for this project offered benefits both to the Corpsmembers and the local community. The Corpsmembers were exposed to the city's natural resources workforce in a capacity that prepares them for future opportunities. They learned about job opportunities and the need for communities to have people who are willing and able to maintain public lands. The City of Arcata benefited by completing critical work and having the chance to interface with potential future job applicants. The city worked side-by-side with Corpsmembers and got to know them, thus essentially taking the first step in recruiting their next round of applicants for local field positions.

The City of Arcata has been a long-time partner and champion of the CCC Fortuna Center. They have publicly proclaimed the importance and value of the Corps. This partnership has succeeded multiple times, leading to the completion of other trail projects partially funded by public sources.

## Lassen Volcanic National Park Peak Trail

### Background

The Lassen Peak Trail, located in Lassen National Park in Northern California, is an historic trail that was in existence before the spectacular series of eruptions of Mt. Lassen between 1914 -1917. During the Great Depression, the Civilian Conservation Corps participated in trail maintenance of the path by erecting retaining walls. The relatively short 2.5-mile trek to the peak, which towers at an elevation of 10,426 feet, attracts thousands of visitors from around the world. Unfortunately, tragedy happened in 2009 when a rock wall collapsed onto nearby children, causing severe injuries and one fatality. The trail has received upkeep and preservation projects in the past, but it became clear that much more work was needed.

The decision was made to pursue a more comprehensive rehabilitation project beyond the annual summer trail work. Planning, surveys, and assessments were completed, and the upgrade project was approved by the National Park Service (NPS) in February 2010.

### Project Work

Corpsmembers from the California Conservation Corps (CCC) spent approximately 8,442 vocational education hours reconstructing retaining walls, constructing causeways, and repairing and constructing steps in extreme conditions for the safety of the trail's 25,000 annual visitors, and for the protection of natural resources in Lassen National Park.

The work began in the spring of 2014 and was completed in summer of 2015. Responsibilities included widening the trail; replacement of rock structures; establishment of a route around the top of the crater; and delineation of a route to the very top of the peak. Over 6,000 square feet (almost one million pounds) of dry-stone walls were reconstructed or replaced along a 1.8 mile stretch of the total 2.5 miles of the Lassen Peak Trail. The rock wall construction helped ensure the trail's tread could stand up to heavy snow loads and the mechanical erosion caused by thousands of hiking visitors per year.





Rock work done by California Conservation Corps Corpsmembers on the Lassen Peak Trail.

The Corpsmembers' work on the trail contributed to the protection and stewardship of endangered vegetation, such as the Lassen Smelowskia flower, which can only be found in Lassen National Park. Over 1,000 linear feet of the Lassen Peak Trail were rehabilitated, which included widening the trail to allow hikers to safely pass each other, and redefining switchbacks to reduce human impact on the Lassen Smelowskia flower and several other species of rare and endemic alpine plants.

### Outcomes and Successes

In addition to protecting hikers climbing Mt. Lassen, the project provided Corpsmembers education, job training, and experience in environmental stewardship. Each Corpsmember received a Certificate of Recognition from the National Park Service for their involvement in such a significant project. Corpsmembers had the opportunity to work side-by-side with NPS employees, who could then potentially provide professional references that could eventually lead to seasonal or full-time employment in trail work.

All 15 Corpsmembers who worked on the project were enrolled in the CCC Educational Award Program and earned hours towards their educational award of \$2,000. This award promotes post-secondary education and assists young people in paying for future education. Several Corpsmembers were enrolled in the AmeriCorps Education Program and earned hours towards additional education-focused funds. Also, Corpsmembers enrolled in the John Muir Charter School program through the CCC earned two additional education hours towards their high school diploma.

### For More Information

#### **California Conservation Corps (Headquarters)**

[www.ccc.ca.gov](http://www.ccc.ca.gov)

1719 24th St.  
Sacramento, CA 95816  
(916) 341-4430



## Economic Development

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Many studies show that trails and greenways promote economic activity through spending, employment, and tax revenues. Increased property values, tourism, and recreation-related spending on equipment, food, and lodging are ways trails positively impact community economies. A major benefit of trails is that they attract people and promote economic development in rural areas. Many towns have been successful at identifying their recreation resources, creating systems of trails, and making them more available through maps, signs, marketing, events, and tours. Communities adjacent to public lands benefit from trails on those lands.

### Case Study: The Zuni Mountains Trail Partnership and Mogollon Rim Ancestral Lands Program

Arizona & Southwest Conservation Corps  
(Arizona and New Mexico)

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#### Key Terms

- Bike Trails
- Drainage Design
- Multi-Use Trails
- Rock Work
- Single-Identity Crews
- Tribal and Indigenous Communities
- Wilderness Stewardship

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#### Project Partners

- Arizona State Parks
- Backcountry Horsemen
- Cibola and McKinley Counties
- Cibola National Forest
- U.S. Forest Service Mount Taylor Ranger District

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#### DOT Strategic Goal Alignment



Infrastructure



Innovation

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#### Best Practices

This case study demonstrates the use of a Conservation Master Plan that shows the ability of local partners to support the goals of resource managers.





Left: Mogollon Rim project; Right: Zuni Mountains project.

## Mogollon Rim Ancestral Lands Program

### Project Work

Arizona Conservation Corps' Ancestral Lands Crew 389 worked on the Mogollon Rim for five weeks from September to October 2017. The crew consisted primarily of tribal youth from the local community, including Corpsmembers representing the White Mountain Apache and Navajo. This project involved a partnership between the Corps and the Blue Ridge Ranger District of the Coconino National Forest.

The crew of eight worked primarily on Barbershop Trail no. 91, constructing a switchback to equestrian-friendly specifications. The original route was a downhill trail into the canyon. The eventual goal is to build a sustainable trail down the Yeager Canyon section of the Barbershop Trail. The project was a continuation of a larger project from the summer and fall of 2014.

### Outcomes and Successes

The crew accomplished 3,963 feet of tread maintenance, which included constructing a new switchback; improving an existing switchback; building 310 square feet of rock retaining wall; and installing or maintaining 14 erosion control structures (waterbars and drains). This also includes additional trail maintenance that was performed on the U-Bar Trail that descends into Barbershop Canyon. Materials were sourced from the brink of the Mogollon Rim and transported to the work site via ATV with assistance from U.S Forest Service staff.

This was the first project of the term for Crew 398, the "Mogollon Monsters," who were completely new to trail work. The Corpsmembers quickly acquired and applied technical trail skills. When the project ended, the crew left with a sense of pride in their work that set them on a trajectory for a successful, productive, and fun term. The satisfying experience of working outdoors and completing a tough, physical project – combined with the technical skills that each Corpsmember gained – propelled them through their next opportunity.

*“Funding for this project was acquired through a Recreational Trails Program (RTP) grant secured by Arizona State Parks and not only provides quality work needed to maintain public lands, but it also supports the personal and professional development of young adults who would otherwise not have been afforded these opportunities. Through conservation corps programs, we can amplify the impact of project funding beyond just trail work. We can provide an experience that changes lives.”*

– Staff member, Arizona Conservation Corps

## Zuni Mountains Trail Partnership

### Background

The Zuni Mountains Trail Partnership is guided by a Conservation Master Plan for the sustainable development of trails and nonmotorized recreation opportunities for the social and economic benefit of local communities.

The ambitious trail system plan consists of 186 miles of nonmotorized trails, 28 miles of connector trails, and six new trail heads managed for pack and saddle, biking, and hiking. Decades in planning, and following a competitive application process and subsequent award of a three-year sole-source agreement with McKinley County, NM, crews from Southwest Conservation Corps’ Ancestral Lands (SCC-AL) program began construction in the fall of 2018. Subsequent funding from Cibola County is expected, with an estimated completion in 2028.

The Conservation Master Plan provides clear guidance for recreation development and management within the Mount Taylor Ranger District, Cibola National Forest. It also serves to showcase the ability of local partners to support the U.S. Forest Service in managing and enhancing public lands and recreation infrastructure.

### Project Work

Ancestral Lands Corpsmembers learned marketable skills in trail building and construction. Following a two-week orientation and training in trail building skills, crews of two to five Corpsmembers worked on a staggered schedule to complete more than 5.3 miles of new trail construction, and connect existing trail with more than 100 drainage structures.

SCC-AL was chosen for this project due to their experience in the region, organizational history, and connection with the local Native American communities. Working with the surrounding Native communities is a high priority for the nearby towns of Gallup and Grants, as well as for the county governments. Many tribes and pueblos in the region have a distinct need for economic development and the kind of job training for young adults that SCC-AL provides.

McKinley County manages the funding and agreement, and the Council of Governments provides leadership and staff to support construction and management. The U.S. Forest Service provides trail planning, oversight and guidance. Backcountry Horsemen provides standards for pack and saddle use, and SCC-AL provides local, all-Native American crews from the surrounding tribes and pueblos of Acoma, Zuni, and Navajo to complete trail construction.



## Outcomes and Successes

Year-one of the project was a success. The Zuni Mountains Trail System will become an economic driver through adventure tourism with the goal of catalyzing job growth and business opportunities. Long-term goals for the trail system are to develop a resilient trail network that will earn recognition by the International Mountain Biking Association, and serve as a “crown jewel” among the singletrack trail systems of the Southwest.

## Challenges and Barriers

Wildfires in the region posed a challenge in year-one. Additionally, soils in the Zuni Mountains are clay-based and heavy, which makes construction during the summer rainy season difficult. Also, there were staff capacity challenges at the U.S. Forest Service. Staffing to support the project from the county and the U.S. Forest Service is critical for guiding and prioritizing actions by the crew.

## For More Information

### **Conservation Legacy**

[www.conservationlegacy.org](http://www.conservationlegacy.org)

701 Camino del Rio Suite 101  
Durango, CO 81301  
(970) 403-1149

### **Southwest Conservation Corps**

[www.sccorps.org](http://www.sccorps.org)

67 Rte 301 N.  
Zuni, NM 87327  
(505) 870-0101

207 S. Second St.  
Gallup, NM 87301  
(505) 722-9755

### **Arizona Conservation Corps**

[www.azcorps.org](http://www.azcorps.org)

2500 N. Rose St. - Suite 101  
Flagstaff, AZ 86004  
(928) 526-3280

1443 West Prince Rd.  
Tucson, AZ 85705  
(520) 884-5550



**Winner:** Coalition for Recreational Trails  
Annual Achievement Award  
(Mogollon Rim)



## Corpsmember Success Story

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### From Corpsmember to Executive Director Rocky Mountain Youth Corps - New Mexico

The multi-use Dos Arroyos Trail is a vital segment of the Taos trail system. This compacted, crushed stone trail is 0.75 miles long and eight feet wide. To build the trail, Rocky Mountain Youth Corps - New Mexico (RMYC-NM) crews prepared tread using a small tractor and prepared for the base course, which was then compacted, topped with crusher fines, and crowned. Protective split-rail fence was erected along the trail as a safety feature and to prevent informal trails being developed into the “arroyos,” or streambeds.

The Dos Arroyos Trail connects with the Weimer-Maestas Trail and the Outward Link Trail as it runs along Paseo del Canon. This system connects the Taos Youth and Family Center, Taos Middle School, and the Carson National Forest with the Weimer Foothills neighborhood and Holy Cross Hospital. RMYC-NM collaborated with the Town of Taos, who owns and maintains the trail; Carson National Forest, who helped plan the trail connectivity and layout; and also worked with private landowners on easements. In addition, RMYC-NM worked with Holy Cross Hospital staff to determine trail layout and design to accommodate patients, staff and visitors alike. In addition to RTP funds, RMYC-NM utilized an AmeriCorps grant to match over 22 percent of the project cost.

Multiple crews had the opportunity to participate in the planning and construction of the trail. The Corpsmembers received project-specific training, including in safe tool use, trail design, fence construction, and the operation of tractors and sit-on-top rollers/compactors. In addition to these project-specific trainings, Corpsmembers received personal and professional development training, including a résumé-writing workshop and instruction in conflict resolution, team-building, finance management, and leadership.

One of the main challenges on this project was working with private landowners to acquire the appropriate easements. Because many landowners were out of state, RMYC-NM needed to identify the landowners, contact them, and sell them on the idea that a trail running along the edge of their property was beneficial.

A notable development from this project was that the Crew Supervisor, Ben Thomas, is now the Executive Director of RMYC-NM. Ben started at RMYC-NM as a Corpsmember in 2004 on a Sustainable Forestry Crew, working to repay student loans and explore the Southwest. Ben aligned with the mission of the Corps and appreciated the hard work. Throughout his time with RMYC-NM, he has been privileged to work on many trail projects like the Dos Arroyos Trails, connecting communities to the outdoors. As Executive Director, Ben still works with young adults and helps to design projects, but does not get to play in the dirt as much!

### For More Information

#### **Rocky Mountain Youth Corps – New Mexico**

[www.youthcorps.org](http://www.youthcorps.org)

P.O. Box 1960  
Ranchos de Taos, NM 87557  
(575) 751-1420



# Environmental Education

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Trail-related environmental education teaches economic, social, and ecological interdependence while experiencing nature and the outdoors. Trails and the natural areas they pass through are outdoor laboratories for schools as well as adults. For children active in natural settings, research indicates a number of benefits in better understanding of the environment as well as improvements in physical and mental health.

## Case Study: Utah Conservation Corps Bike Crew Utah Conservation Corps (Utah)

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### Key Terms

- Bike Trails
- Ecosystem Protection
- Single-Identity Crews
- Vegetation Management

### Project Partners

- Congestion Mitigation and Air Quality Program
- Deer Creek State Park
- East Canyon State Park
- Utah Department of Transportation
- Utah State University

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### DOT Strategic Goal Alignment

-  Accountability
-  Infrastructure
-  Innovation
-  Safety

### Best Practices

This case study provides an example of a Corps refurbishing used bikes and using them as an alternative form of transportation in an effort to help the organization reach its goal of becoming carbon-neutral.



## Background

The Utah Conservation Corps (UCC) Utah State Parks Bike Crew created new tread and upgraded existing trails and old road grades to establish the Water's Edge Wallsburg Trail at Deer Creek State Park. Located in northwestern Utah, Deer Creek State Park features a large dam and picturesque reservoir that attracts seasonal fisherman, hikers, and boating and sailing enthusiasts. The park sees over 300,000 visitors per year.

The Wallsburg Trail was once a social trail, unofficially developed by years of hikers creating their own footpaths instead of using official trails. Dear Creek State Park worked with the UCC Bike Crew to turn this path into a safe and sustainable trail.

## Project Work

Thanks to the UCC Bike Crew, this two-mile trail within the park is now a family-oriented singletrack path that allows for fishing access along the south side of Wallsburg Bay. A portion of this trail is heavily used by fishermen accessing the water via three boat pull-outs along Provo Scenic Byway 189. The majority of this trail was an existing road grade that UCC Bike Crew members improved and extended to the Chokecherry Campground inside the park.

The project involved chainsaw work and sawyering, as well as habitat restoration. UCC crews performed juniper fitting along the trail, which is a form of vegetation management that helps reduce the number of moose visiting the area. Moose cause damage to native plants and pose a safety threat to drivers and hikers.

The UCC Bike Crew also maintained tread on the historic Mormon Pioneer Trail at East Canyon State Park (ECSP). The park is located northeast of Salt Lake City within a narrow-walled canyon. This trail was originally blazed by the Donner Reed party and later used by the Mormon Pioneers. This trail is heavily used for interpretive hikes and hosts handcart enthusiasts. The trail boasts wildlife value and is accessed year-round by thousands of non-motorized user groups. In the fall, this trail is the only public access point for hunters in Morgan County, UT. Horseback riders and hunters also frequent this trail, which runs along private property in the mountains. UCC and ECSP worked with the landowners to make sure the trail stays open and accessible to these users during hunting season. The UCC crew completed tread work, brushing, back-slope and out-slope work, and improved drainage on a trail that had not seen maintenance in over ten years.

From UCC's office in Salt Lake City, the Bike Crew respectively traveled 33 and 56 miles, one-way, to these two Utah State Parks project sites. Corpsmembers carried all food, camping supplies, and group gear by cargo bicycle.

With a mission and commitment to be carbon-neutral by 2030, UCC, in partnership with Utah State University, had collaborated on a Bike Crew idea for the previous ten years. Thanks to the RTP grant, this program came to fruition. UCC has always been conscious of the fuel expended to drive to and from projects sites and wanted to try a sustainable and clean transportation alternative.

## Outcomes and Successes

The success of the inaugural Bike Crew launched additional crews from 2016 to 2018 and inspired some of the Corpsmembers to pursue trail and transportation-related jobs. One Corpsmember from the 2016 crew remained with UCC to become a Crew Leader the following season. Another Corpsmember from the 2016 crew was hired as a program coordinator for the Aggie Blue Bike program located on USU's campus. Started in 2005 by a Utah State University student who wanted to make a difference, the Aggie Blue Bike Program (ABBP) refurbishes used bikes and returns them into circulation, providing the USU students and local community healthy transportation and recreational habits during the colder months. UCC recruits USU students into the ABBP to serve as AmeriCorps members. The program helps provide the training and inspiration for a new generation to gain skills and experience with a sustainable, transportation-alternative career pathway. Aggie provides the bikes and maintenance in time for the UCC field season for the Bike Crew to use.

The primary funding source for the ABBP is the Congestion Mitigation and Air Quality Program (CMAQ), a program funded by the Utah Department of Transportation (UDOT). The state has given special approval to UCC to utilize the grant funds for their program.

## Challenges and Barriers

The Bike Crew posed some challenges, including needing to dedicate an entire day for travel and only applying Bike Crews to shorter projects. UCC staff also had to figure out the logistics and safety planning for this new endeavor, such as mapping safe bike routes to the project site, scheduling time and distance for the bike travel, having the crew wear special visibility gear and clothing while on the roads, and lining up all of these logistics with the project sponsor's timeline.

UCC hopes to continue their public-private partnership to fund future Bike Crews, which will help contribute to UCC's carbon-neutral commitment and provide more access and opportunities for youth Corpsmembers to learn about sustainable and clean transportation alternatives.

## For More Information

### Utah Conservation Corps

[www.ucc.usu.edu](http://www.ucc.usu.edu)

7205 Old Main Hill  
Logan UT, 84322  
(435) 797-0964



**Winner:** Coalition for Recreational Trails  
Annual Achievement Award  
and The Corps Network  
Project of the Year Award



# Habitat Improvement

An important aspect of trail development is creating a positive experience for visitors while preserving the important natural resources that plants and animals depend on. In many RTP-funded projects, this process goes further in improving the habitat along the trail corridor. RTP funding is also commonly used for projects involving acquisition of land for habitat and ecological connectivity. Planning efforts may also focus on trail systems that guide visitors away from sensitive wildlife areas and into more adaptable settings. Best practices for trail development also includes mitigation of impacts, revegetation of disturbed areas, using recycled materials, and reducing erosion.

## Case Study: Boardwalk Rehabilitation on the Alaka’i Swamp Trail Kupu - Hawaii Youth Conservation Corps (Hawaii)

### Key Terms

- Boardwalks and Bridges
- Ecosystem Protection
- Tribal and Indigenous Communities
- Vegetation Management

### Project Partners

- Hawaii Dept. of Land and Natural Resources
- Hawaii State Legislature
- Na Ala Hele Program

### DOT Strategic Goal Alignment

-  Infrastructure
-  Innovation
-  Safety

### Best Practices

This case study provides an excellent example of RTP funding bringing several nonprofits together to refurbish a critical trail and boardwalk system. This project involved innovative construction practices that will protect the sensitive Hawaiian ecosystem. The Corps and trail staff from the Na Ala Hele Program worked together to service their community and provide work opportunities to native Hawaiians.





Installing new boardwalk sections on the Alaka'i Swamp Trail.

## Background

The Alaka'i Swamp Trail is a 3.5-mile-long pathway located in the Na Pali-Kona Forest Reserve and Hono o Na Pali Natural Area Reserve on the island of Kauai. The Alaka'i Swamp is one of the world's highest elevation wetlands and is a defining feature of Hawaii's island landscape. The trail is situated in a marshland that is home to a number of plant and animal species that can only be found in Hawaii. Along with improving hiker safety, protecting these rare creatures was a primary reason for the construction of the original wooden boardwalk. Without a clearly marked trail, many people got lost and had to be rescued; the terrain looks pretty much the same wherever you look.

To access this unique ecosystem for conservation purposes, the Alaka'i Swamp Trail was established in 1981. The boardwalk, made from large redwood planks lined with wire mesh, allowed access to the sensitive environment without endangering trail users on unstable terrain. Anyone who's made the hike in recent years has experienced the deterioration of the existing boardwalk. In some places, decay and rot left large sections of the boardwalk missing or slowly sinking in the muck. In others, the chicken wire, which is attached to the wood to provide traction, is missing. More than 20 years in the Alakai's harsh environment has taken a toll on the boardwalk, making it a safety hazard for anyone who traverses it.

In September 2016, the Kauai Branch of the Na Ala Hele Program (Hawaii's state-operated trail access program) completed a major maintenance and rehabilitation project on the Alaka'i Swamp Trail. Annually awarded \$16,000 of RTP funding and \$4,000 of state matched funding for regular maintenance, the project received an additional \$500,000 state Capital Improvement Program (CIP) award to replace the severely dilapidated boardwalk and restore safe access to this unique Hawaiian ecosystem.

## Project Work

In 2014, \$500,000 of CIP funding was received from the Hawaii State Legislature to replace boardwalk on the Alaka'i Swamp Trail. It was proposed that sections be reconstructed with innovative slip-proof boardwalk, including sections made of recycled plastic that has been

reinforced with fiberglass. This new material is temperature-stable in the humid, sunny environment. The reinforced sections will also resist degradation in heavy moisture.

Work on the project began in May 2016 and was completed in September 2016. The project took 1,900 Na Ala Hele staff hours to complete, with 52 hours of helicopter operations, carrying over 50 loads of material. Volunteers contributed an additional 320 hours of work. Na Ala Hele partnered with Kupu – a nonprofit that operates the Hawaii Youth Conservation Corps – to engage young people in the project. Much of the labor used to expediently complete the project was provided by AmeriCorps members from Kupu. The project also drew additional Na Ala Hele staff from neighboring islands to aid in completion. This is the first time staff from across the state worked together on a trail project in 20 years.

## Challenges and Barriers

Some of the staff that helps maintain state trail systems through the Na Ala Hele Program remember visiting the Alaka'i Swamp Trail when it was first made accessible. Through the course of over 20 years, highly humid conditions and constant use rotted the boardwalk and rusted the mesh stabilizers, leaving many sections of the boardwalk unsafe to public users. Pedestrians would get lost in the swamp while trying to go around marshy terrain and broken sections.

Off-trail trekking damaged sensitive reserve habitat. Although the Alaka'i Swamp Trail received regular maintenance, funded by RTP and state money, the rate of degradation in a harsh environment called for large-scale repairs.

## Outcomes and Successes

Today, the Alaka'i Swamp Trail is used for recreational hiking. Trail visitors are given a unique and invaluable experience in native Hawaii and see firsthand the importance of conservation and stewardship of limited resources. School groups and island youth are drawn to the swamp to learn about and experience a part of Hawaii that few would be able to access without the boardwalk trail.

## For More Information

### **Kupu**

[www.kupuhawaii.org](http://www.kupuhawaii.org)

677 Ala Moana Blvd. - Suite 1200  
Honolulu, HI 96813  
(808) 735-1221



**Winner:** Coalition for Recreational Trails  
Annual Achievement Award



# Partnership Development

RTP funds contribute to the success of trail projects by encouraging effective partnerships. For many trails the key requirement is cooperation among jurisdictions, such as a rail trail that passes from town to town. In many cases the partnership is between public and private interests that bring volunteers and citizens groups together to assist in building and maintaining trails managed by different levels of government.

## Case Study: Pole Mountain Trail Project Wyoming Conservation Corps (Wyoming)

### Key Terms

- Bike Trails
- Multi-Use Trails
- Ski and Snowmobile Trails

### Project Partners

- Common Outdoor Ground
- Medicine Bow National Forest
- Wyoming Pathways
- University of Wyoming

### DOT Strategic Goal Alignment



Accountability



Infrastructure

### Best Practices

The U.S. Forest Service used Trail Charrettes, or public community meetings of stakeholders, to collect comments on the maintenance needs on the Pole Mountain trail system. Through collaboration and public-private partnerships, work on Pole Mountain had community support. Corpsmembers also gave back by helping educate trail users about recreational opportunities and environmental issues.





Wyoming Conservation Corps Corpsmember at work on the Pole Mountain project (University of Wyoming).

## Background

The Pole Mountain area in The Medicine Bow National Forest contains trails that were never planned or maintained. Instead, many informal, “social” trails were worn-in by hikers over decades of use. These trails require all-season maintenance: they’re used by hikers, mountain bikers, and equestrians in the summer, and Nordic skiers, snowshoers, and fat bikers in the winter. Pole mountain’s year-round trail use is increasing due to its proximity to growing population centers in the front range of Colorado, its proximity to the cities of Cheyenne and Laramie, and because of the growing outdoor recreation economy in Wyoming.

Increased use of these social trails led to environmental degradation in the area. Forest Service staff identified a need to maintain and build resilient trails. This need was demonstrated through collaborative public processes, including public comments submitted to the Forest Service and a trail public forum, hosted by the University of Wyoming and Wyoming Pathways, where members of the community brainstormed solutions with Forest Service representatives.

## Project Work

Throughout 2017, Wyoming Conservation Corps partnered with Wyoming Pathways and the Laramie Ranger district of the Medicine Bow National Forest to build and maintain trails on the Pole Mountain unit of the Medicine Bow National Forest. Funding came from a \$46,000 RTP grant acquired by Wyoming Pathways and matched with \$26,000 in funding from Wyoming Pathways and local support.

Wyoming Pathways partnered with Wyoming Conservation Corps to hire four Conservation Corps crews for 40 days. This project provided multiple opportunities for community education and involvement. On National Trails Day in June 2017, more than 50 volunteers contributed to building sustainable trails at Pole Mountain. Another volunteer project occurred on September 30, in which the University of Wyoming, Wyoming Conservation Corps, the U.S. Forest Service, Wyoming Pathways, and local volunteers completed critical work to finish phase-one of the overall project. These volunteer events helped spread information about environmental awareness, resilient trail use, and recreation opportunities at Pole Mountain.

The work at Pole Mountain was supported and reinforced by the community. The University of Wyoming (UW) Outdoor Program offered trail construction courses; the UW Service Leadership



Wyoming Conservation Corps Corpsmember at work on the Pole Mountain project (University of Wyoming).

and Community Engagement Office generated volunteers; local staff from the U.S. Forest Service provided project oversight; and the Wyoming State parks non-motorized trails program provided tools. The development of these rich partnerships will allow this project to grow into a long-term sustainable trail program.

### Outcomes and Successes

Outdoor recreation is vital to Wyoming's economy. Due to the success of this project, the U.S. Secretary of Interior announced Pole Mountain as one of 15 priority areas to receive funding as part of the agency's mission to address approximately \$300 million in backlogged trail maintenance.

The project's success also led to the formation of an independent non-profit organization, known as Common Outdoor Ground (COG), that, under an agreement with the U.S. Forest Service, will provide volunteer labor resources for projects on the Pole Mountain trail system. Phase-two of the Pole Mountain project was approved and work began in the summer of 2018 utilizing volunteers and Corpsmembers from Wyoming Conservation Corps.

### For More Information

#### **Wyoming Conservation Corps**

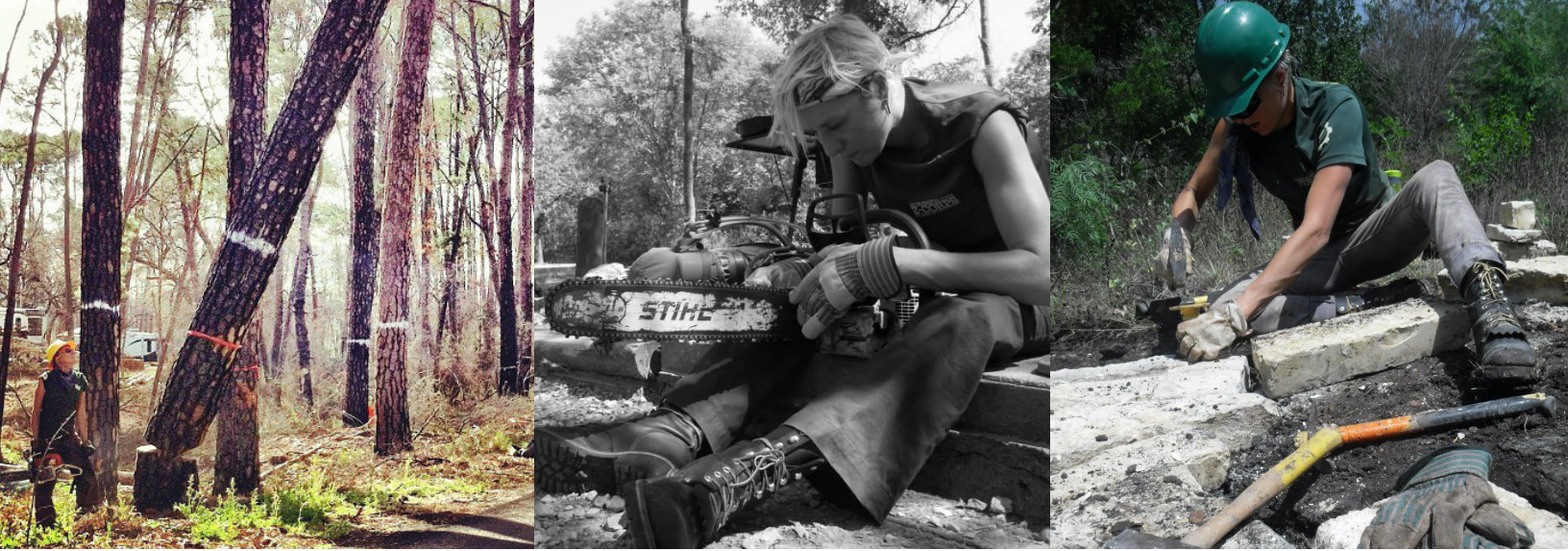
[www.uwyo.edu/reslife-dining/wcc/](http://www.uwyo.edu/reslife-dining/wcc/)

1000 E. University Ave., Dept. 3394  
Laramie, WY 82071  
(307) 766-3048



**Winner:** Coalition for Recreational  
Trails Annual Achievement Award





Erica Keller, a Texas Conservation Corps alumna now employed with Texas Parks & Wildlife.

## Corpsmember Success Story

### Career Pathways with Texas Parks & Wildlife Texas Conservation Corps at American YouthWorks

RTP funding in Texas has helped alumni of the Texas Conservation Corps at American YouthWorks (TxCC) advance into roles with the Texas Parks & Wildlife Department (TPWD). Corpsmembers from TxCC's Trails Across Texas program leave with a well-developed trail building skillset, a diverse portfolio of completed trail and conservation projects, and many hours of on-the-ground experience with state park staff. TPWD RTP Program Manager Trey Cooksey said, "The experience that the Conservation Corps provided is unparalleled in this field. That experience on their résumé, and the face-time it provided with agency staff, really gave these folks a significant boost in the application process."

Three current TPWD staff that coordinate RTP projects are former TxCC Corpsmembers or program staff. Additional Trails Across Texas alumni include a park planner and a state park operational staffer.

TPWD's Off-Highway Vehicle Coordinator, Erica Keller, was a Corpsmember on the RTP-funded State Parks Trails Crew in 2012, where she had a hand in the construction of accessibility-focused trail projects at both Seminole Canyon State Park and Historic Site as well as at Government Canyon State Natural Area. Erica and her crew also worked closely with the U.S. Forest Service's specialized trail unit, Trails Unlimited, to complete an ATV and dirt bike trail expansion at Eisenhower State Park in North Texas.

Erica went on to work in various leadership positions at TxCC as both a Corpsmember and employee. As staff, she had a significant role developing and expanding TxCC's programs in the Gulf-region in the wake of the Deepwater Horizon oil spill. As the Off-Highway Vehicle Program Coordinator, Erica is responsible for OHV projects using RTP funding and monies from state OHV decal sales. She also provides grant assistance, project management, and partnership development for OHV projects associated with RTP.





Erick Hetzel, a Texas Conservation Corps alumnus now employed with Texas Parks & Wildlife.

Erick Hetzel, TPWD State Park Trails Coordinator, was a TxCC Corpsmember when the idea for a dedicated State Park trail crew was in development. Starting as a general Corpsmember in 2007 and working into a leadership role, Erick participated in various RTP-funded projects in Texas State Parks, including installing innovative, diamond pin foundation boardwalk segments over the wetlands of Huntsville State Park.

In 2009, Erick was hired as a TxCC staffer to coordinate the new Trails Across Texas program. For over six years, Erick managed the biannual crew and associated trail projects while helping the program develop a great reputation among TPWD staff. In 2015, Erick joined TPWD to oversee the program he had managed at TxCC.

As Trails Coordinator, Erick manages new and significant redesign trail projects across the State Park system. He's had the opportunity to work on every stage of the trail planning process, from developing the idea and design, to permitting, construction and long-term maintenance planning. The Trails Coordinator position also helps manage the overall RTP grant program, which, in addition to the State Park Trail program, annually grants funds for more than 20 local trail projects across the state.

### For More Information

See contact information for **Texas Conservation Corps** on [page 52](#).



# Public Land Stewardship

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Trails promote natural resource management strategies that help ensure environmental quality. Land managers use trail projects as opportunities to engage volunteers and habitat specialists in improving natural habitats. Benefits include restoring degraded stream corridors, routing trails to avoid sensitive wildlife habitat, and removing invasive plants.

## Case Study: Stewarding North Carolina’s Trails - Wildcat Rock and Mt. Mitchell

American Conservation Experience, Conservation Corps North Carolina, Vermont Youth Conservation Corps (North Carolina)

### Key Terms

- ATV and OHV Trails
- Logging
- Mechanical Operations
- Multi-Use Trails
- Rock Work
- Wilderness Stewardship

### Project Partners

#### Wildcat Rocks Project Partners

- Community Foundation of Henderson County; Conserving Carolina; Conservation Trust for North Carolina; Donald Jones Foundation; Henderson County Parks and Recreation; National Scenic Byways Program; NC Natural Heritage Program; NC State Trails Program; REI; Trail Dynamics; Benchmark Trails

#### Mt. Mitchell Project Partners

- Mt. Mitchell State Park; NC High Peaks Trail Association (NCHPTA); North Carolina Recreational Trail Program; Pisgah National Forest; U.S. Forest Service

### DOT Strategic Goal Alignment



Infrastructure

### Best Practices

This case study provides an example of utilizing Corps in conjunction with local volunteers.

## Wildcat Rock Trails

### Background

A 100-foot waterfall, dramatic rock outcropping, and a charming cattle-grazed meadow are what draw users to the Wildcat Rock Trail. Begun in 2013 and finished in 2017, the three-mile-long trail is the newest segment of the Upper Hickory Nut Gorge Trail, a budding 20+ mile loop that will soon link a half dozen trail segments circumnavigating the community of Gerton in northeast Henderson County, NC. The trail loop is a component of the larger Hickory Nut Gorge Trail network: a planned 100+ mile system of hiking and biking trails that will ultimately link to Chimney Rock State Park and encircle Lake Lure.

### Project Work

Conservation Corps North Carolina was awarded an RTP grant in 2012 for a funding amount of \$75,000. This grant directly leveraged an additional \$150,000 from the Donald Jones Foundation and two successive REI grants. RTP funding made each of these additional funding sources possible. The project blended an impressive assembly of public and private partners including Henderson County Parks and Recreation, NC State Trails Program, NC Natural Heritage Program, Community Foundation of Henderson County, and the National Scenic Byways Program.

Actual construction of the Wildcat Rock Trail maximized available resources and talents of a half dozen partners, including two professional trail contracting companies (Trail Dynamics and Benchmark Trails); three youth Service and Conservation Corps (Conservation Corps North Carolina, Vermont Youth Conservation Corps, and American Conservation Experience); and two community volunteer groups (Carolina Mountain Club and Conserving Carolina Rock Crushers). Machine construction, hand build, and intensive rigging rock masonry were utilized in this complex construction project. Sustainable trail design was completed by Conserving Carolina, with a particular focus on protecting the surrounding sensitive natural resources.

To accommodate for the steep and rugged slopes of the mountain, more than 250 rock stairs and 150 log stairs were implemented into the design and construction of the project. The resulting trail is not only environmentally resilient, but it is a work of art that offers an outstanding user experience that will stand the test of time.

The three different Corps that worked on the Wildcat Rock Trail completed five separate crew deployments, each over six weeks long, amassing several thousand hours of crew work. At the time of the project, the North Carolina Youth Conservation Corps (later renamed Conservation Corps North Carolina) had recently started; they utilized the Wildcat Rock Trail as a pilot project under supervision and training from the Vermont Youth Conservation Corps. In total, more than 50 youth participated in the creation of the trail. The quality work completed on the project helped successfully launch Conservation Corps North Carolina.





Trail crew from Conservation Corps North Carolina.

## Benefits of using Corpsmembers

The Wildcat Rock Trail benefits from robust community and volunteer support. In particular, Conserving Carolina's Rock Crushers Trail Crew donated more than 1,100 hours to monitor, maintain, and improve the trail. REI Asheville continues to support the project financially through its annual stewardship grants, as does the Henderson County Tourism Development Authority. Conserving Carolina also employs a full-time Trails Coordinator to provide professional expertise and volunteer management in support of the Wildcat Rock Trail.

The Wildcat Rock Trail coincided with a conservation project that perpetually protected 135 acres on the north slopes of Little Bearwall Mountain through acquisition of two tracts of land by Conserving Carolina. According to the Natural Heritage Inventory of Henderson County, these tracts were considered among the most biodiverse and highest conservation priorities in the region. The Wildcat Rock Trail traverses this area and made funding the conservation project possible. These tracts are now contiguous to a network of over 1,000 acres of protected public lands in the Upper Hickory Nut Gorge.

## Mt. Mitchell Trail – American Conservation Experience

### Background and Project Work

Over the course of this project, American Conservation Experience (ACE) improved and maintained over 1.25 miles of the Mt. Mitchell Trail on the Pisgah National Forest leading up to the boundary of Mt. Mitchell State Park.

The main goals of the project were to address erosion control issues and user safety. ACE removed berm, installed grade dips, and built rock staircases to improve user safety and improve erosion control. ACE also naturalized switchbacks to prevent trail users from cutting corners and negatively impacting the surrounding areas.



Trail crews from Conservation Corps North Carolina.

ACE collaborated with NC High Peaks Trail Association (NCHPTA), the U.S. Forest Service, and Mt. Mitchell State Park. NC High Peaks Trail Association received the grant and contracted ACE to conduct the labor. NCHPTA approved plans with the U.S. Forest Service and did pre-planning involving ACE and the Forest Service. Mt. Mitchell State Park Staff helped provide access to the trail, a camping location, and logistical support with ATVs or trucks to help the crew pack in gear.

### Outcomes and Successes

The benefits of using a Corps for this project would best be illustrated by the remoteness of the work and the numerous project sites, which worked well for a crew-based model. The Corpsmembers adjusted easily to a 1.5-mile hike into a backcountry primitive camping location, and to the two to four-mile daily hike to get to and from the work site. There were also multiple project sites that could be addressed simultaneously by having crews split into small groups of two to three Corpsmembers who were managed by a Crew Leader who could oversee quality-control and teach proper trail maintenance techniques. Because – in keeping with the Corps model – ACE provided Crew Leaders to supervise the work, ACE was trusted to complete quality work with limited oversight from resource managers. This freed up the time of agency and non-profit staff to focus on the broader goals of the project. ACE was chosen for this project for their familiarity with the site, knowledge of trail work, flexibility, ability to work in remote areas, and ability to work under minimal supervision from Forest Service staff. ACE Corpsmembers gained skills through experience using a grip-hoist and chainsaws, and gained skills in dry-stone masonry. Corpsmembers also developed skills in erosion control by installing grade dips and learning to build rock staircases.

### Challenges and Barriers

The terrain and adverse working conditions were the main challenges of this project. Building trails in the high elevation of the Appalachians involves dealing with wet conditions, springs, standing water, and an abundance of roots and organic material that must be removed prior to building trail tread. The youth crews handled this by scheduling work during prime weather conditions and addressing water issues before digging the trail.



This was ACE's second year working on an RTP grant with NCHPTA, Pisgah National Forest, and the North Carolina RTP program. A main takeaway from this effort was the importance of securing agreements well ahead of projected start dates. Due to the number of partners involved in this project, the agreement process took longer than anticipated; work did not begin until over six weeks after the original start date.

### For More Information

#### **American Conservation Experience – Southeast**

[www.usaconservation.org](http://www.usaconservation.org)

63 Fletcher Commercial Dr.  
Fletcher, NC 28732  
(928) 814-2647

#### **Conservation Corps North Carolina**

[www.ctnc.org/ncycc](http://www.ctnc.org/ncycc)

1028 Washington St.  
Raleigh, NC 27605  
(919) 828-4199

#### **Vermont Youth Conservation Corps**

[www.vycc.org](http://www.vycc.org)

1949 E. Main St.  
Richmond, VT 05477  
(802) 434-3969



**Winner:** Coalition for Recreational Trails  
Annual Achievement Award





## Repair and Rehabilitation

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Just as our communities and transportation systems are vulnerable to major damage, so are our trails and parks. All trails need maintenance, but extreme weather events as well as heavy visitor use will require additional rebuilding. Damage from wildfires and resulting erosion have also affected many miles of trails on public lands.

### Case Study: Restoration of Historic Butler Lodge Green Mountain Club (Vermont)

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#### Key Terms



- Historic Preservation
- Logging
- National Scenic and Historic Trails
- Wilderness Stewardship

#### Project Partners

- Appalachian Trail Conservancy
- National Park Service
- State of Vermont Department of Forest Parks and Recreation
- University of Vermont
- *private landowners*

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#### DOT Strategic Goal Alignment

-  Infrastructure
-  Safety

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#### Best Practices

With the guidance of a preservationist, Corpsmembers on this project gained hands-on experience and training in historic preservation, including skills in historic woodworking. Corpsmembers also learned about modern construction techniques, logging, and the complexities of forest management in a remote wilderness area.

## Background

### **Vermont's Long Trail System**

Known as Vermont's "footpath in the wilderness," the Long Trail System contains over 400 miles of trails and 70 backcountry campsites. The Long Trail follows the main ridge of the Green Mountains from the Massachusetts-Vermont state line to the Canadian border. Visitors to the Long Trail system enjoy rugged peaks, pristine ponds, alpine ecosystems, and hardwood forests.

Built by the Green Mountain Club (GMC) between 1910 and 1930, the Long Trail system is the oldest long-distance hiking trail in the United States. It was the inspiration for the Appalachian Trail, which coincides with the Long Trail for 100 miles in the southern third of the state.

Originally built in 1933, the Butler Lodge is a rustic cabin along the Long Trail. Green Mountain Club (GMC) volunteers rebuilt the lodge in 2000 and it now serves as a popular year-round destination shelter for thru-hikers. From May through October, GMC caretakers look after the lodge and the two miles of trail that lead to it.

Butler Lodge is a historically significant log structure and it continues to receive overnight use by casual outdoor recreationists and backpackers. GMC stewards the site through interpretative education lessons and backcountry waste management. Mt. Mansfield is the heaviest used section of Vermont's Long Trail and the cabin and trail are used by Long Trail thru-hikers, day hikers, and weekend campers. In 2016, the ridgeline count of hikers was 53,268 people in four months; during that period, Butler Lodge had 368 night-time users.

## Project Work

Butler Lodge restoration efforts included extensive structural restoration, waste management, historic preservation of the facilities, wilderness stewardship education, as well as maintenance of the trail that connects users to the lodge.

The GMC crew – which included four Corpsmembers and one Crew Leader – completed trail work by replacing a ladder on the Long Trail near the shelter, adding planks, and repairing drains. Structural restoration of the lodge started with the removal of the roof, which was replaced with in-kind contributions to GMC. Additionally, the two lowest sections of logs supporting the lodge were removed from the building and replaced according to National Park Service (NPS) standards for historic preservation. The porch was also replaced with a newer version that includes a steel grate to allow snow to pass through the floor as opposed to piling up against the building and contributing to future rot issues. Additionally, the door threshold and interior flooring were replaced.

Through hands-on experience and training, the crew gained skills in historic woodworking techniques, modern construction skills, and complex logistics management. Due to the remote nature and sensitive alpine mountain environment, all materials for this project – including waste and debris - were packaged for transport and removed from the site via helicopter airlift.

### **Partnerships**

The Butler Lodge project was a partnership between the Green Mountain Club, the State of Vermont Department of Forest Parks and Recreation, and the University of Vermont, who owns



The historic Butler Lodge along the Long Trail in Vermont.

the land used for the airlift and a portion of the trail. The GMC provided on-the-ground work supported financially through the club's resources and state contributions. Additional funding sources included GMC membership fees, private donations, and in-kind labor donations.

GMC continues to maintain and protect of the Long Trail and works in partnership with the Green Mountain National Forest, state of Vermont, Appalachian Trail Conservancy, and private land owners to offer a world-class hiking trail.

### Challenges and Barriers

The biggest challenges of the project were the remote location, the logistical complexity of the helicopter airlift, and the need to meet NPS historic preservation standards. These were overcome by contingency planning and thorough training of GMC Corpsmembers and their Crew Leader. The Corpsmembers who served on the project were guided by a GMC mentor who has a long and esteemed career in historic preservation.

### For More Information:

**The Green Mountain Club**  
[www.greenmountainclub.org](http://www.greenmountainclub.org)

4711 Waterbury-Stowe Rd.  
Waterbury Center, VT 05677  
(802) 244-7037





# Resiliency

For trails, resiliency may mean better route planning, mitigation of impacts, using recycled materials, and reducing erosion. To trail managers, resiliency is key to reducing expenditures on maintenance by better design of trails, and the use of appropriate materials and structures.

## Case Study: Appalachian Trail Re-route on Bear Mountain New York-New Jersey Trail Conference (New York)

### Key Terms

- Accessibility
- Interpretation
- Multi-Use Trails
- National Scenic and Historic Trails
- Rock Work
- Vegetation Management
- Wilderness Stewardship

### Project Partners

- Appalachian Trail Conservancy
- National Park Service
- New York State Office of Parks, Recreation and Historic Preservation
- Palisades Interstate Park Commission

### DOT Strategic Goal Alignment

-  Infrastructure
-  Innovation
-  Safety

### Best Practices

RTP funding was utilized in diverse ways on the Bear Mountain project, including helping build the first ADA-compliant section of the Appalachian Trail (AT) and constructing the AT's first outdoor interpretive exhibit. Much of the work Corpsmembers completed on the trail was done by hand.



NYNJTC Conservation Corps Corpsmembers at work at Bear Mountain State Park.

## Background

In fall 2018, the New York-New Jersey Trail Conference (NYNJTC) finished construction on the Bear Mountain Trails Project, a historic and ambitious rehabilitation of the Appalachian Trail (AT) that launched the Trail Conference's Conservation Corps program. Over the last 14 years, the Trail Conference has rallied the community to help transform the AT at Bear Mountain from an eroded, washed-out, 10-foot-wide scar, into a safe, sustainable footpath and educational destination.

Over 2 million people visit Bear Mountain State Park in New York each year, making this original section of the Appalachian Trail the most heavily used. When issues of heavy use and degradation came to a head in 2004, a plan was developed to protect the mountain and accommodate the high volume of hikers. The Trail Conference and its partners – the National Park Service, Appalachian Trail Conservancy, New York State Office of Parks, Recreation and Historic Preservation, and Palisades Interstate Park Commission – initiated the Bear Mountain Trails Project to provide a solution for a high-use destination that requires educational components to better inform and prepare visitors.

## Project Work

This project had two specific outcomes: build a better, safer, more sustainable trail for park visitors and develop a pool of trained volunteers to support the vast network of the trails in the Hudson River Valley. Training and deploying a Conservation Corps was essential in accomplishing both of these goals.

Work on the tread was primarily done by hand and involved hardening the trail with more than 1,300 granite steps, weighing an average of 500 to 800 pounds each, from the bottom of Bear Mountain to its summit. The project included building the first ADA-compliant section of the Appalachian Trail, and constructing Trails for People, the first outdoor interpretive exhibit aimed at teaching park visitors how trails are made.

Additionally, an abandoned group camp in Harriman State Park that had been repurposed to house NYNJTC Corpsmembers is now becoming a center for environmental and wilderness education. NYNJTC uses the facility to conduct classes in Wilderness First Aid, Leave No Trace, invasive species management, and trail building and maintenance.





Left: Educational exhibit created by NYNJTC. Right: Rock work on the Bear Mountain Trail.

The Bear Mountain Trails Project could not have been completed without the work of 25 Corpsmembers serving over the last five years. The Corps also enabled thousands of people from the community to contribute to stewarding trails in the Hudson River Valley: NYNJTC crews trained nearly 3,000 volunteers who donated more than 83,000 hours of service. Thousands of community volunteers were engaged on the Bear Mountain Trails Project alone; during one phase of the project, 380 volunteers contributed 3,009 hours of service valued at \$58,381.

Utilizing Corpsmembers to leverage community volunteers has been key to the success of the NYNJTC Corps program. Investing time to teach Corpsmembers how to engage community volunteers and give them a sense of ownership of their public lands has had a tremendous impact on the Trail Conference's projects.

As a result of developing a Conservation Corps for the Bear Mountain Trails Project, NYNJTC Corps program has doubled in size and capacity to include several crews performing trail work throughout the region. NYNJTC has crews working on terrestrial and aquatic invasive species management and will introduce a trail stewardship and education component to the program.

The Conservation Corps has allowed the Trail Conference to expand its reach and visibility by having a full-time presence in the communities in which it serves. The State of New York has reached out to deploy two crews in state parks to help implement Master Trail Plans and improve the recreational opportunities for the public. NYNJTC's contract to deploy crews in state parks has been renewed every year for the last five years. These crews have built a multi-use trail for equestrians, mountain bikers, and hikers, which has helped create new partnerships with these user groups.

## Outcomes and Successes

Four Corpsmembers have become full-time staff members of NYNJTC and two became seasonal employees who oversaw the final two years of construction on the Bear Mountain Trails Project. One quarter of Corpsmembers serving on Bear Mountain have gone on to employment with the Trail Conference; nearly all have become gainfully employed elsewhere. The skills the Corpsmembers learned during the project have led to nearly 80 percent of the crew successfully finding employment.



To complement the trail work, NYNJTC designed and built the Trails for People exhibit at the foot of Bear Mountain. Visitors learn about the history of the Appalachian Trail, the park, and the Trail Conference's nearly 100-year legacy of empowering volunteers to improve the outdoor experience for everyone. The planning phase for additional indoor exhibits celebrating Bear Mountain as the birthplace of the Appalachian Trail is underway. Seasonal Trail Stewards have been stationed at the Appalachian Trail at the foot of Bear Mountain to familiarize visitors to the concepts of safe and responsible hiking and front-country wilderness stewardship.

### For More Information

#### **New York-New Jersey Trail Conference Conservation Corps**

[www.nynjtc.org](http://www.nynjtc.org)

600 Ramapo Valley Rd.  
Mahwah, NJ 07430-1199  
(201) 512-9348



**Winner:** The Corps Network  
Project of the Year Award



## Safe Recreation

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As with all transportation programs, safety is a vital component. The sheer variety of trail types and recreation goals means that some trail activities do include strenuous efforts, journeying into remote country, and all the risks of the natural world. The goal for backcountry land managers is to reduce known hazards and to warn trail users of the unexpected.

### Case Study: Inventory and Rehabilitation of Maine’s Recreational Trails - The Eyebrow Loop Project Maine Conservation Corps (Maine)

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#### Key Terms



- Drainage Design
- Rock Work
- Trail Assessment
- Wilderness Stewardship

#### Project Partners

- Grafton Notch State Park
- Maine Department of Agriculture, Conservation, and Forestry

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#### DOT Strategic Goal Alignment

-  Accountability
-  Safety

#### Best Practices

RTP funding helped supplement the efforts of two AmeriCorps members who have backgrounds in data collection, statistics, GIS, trail construction, and outdoor stewardship skills. In partnership with an external evaluator and Corps staff, these AmeriCorps interns helped establish a system for assessing the current environmental condition and quality of Maine’s recreational trail systems.



Maine Conservation Corps Environmental Stewards Molly Picillo and Raymond Menard.

## Inventory of Recreational Trail Attributes and Conditions Throughout Maine

### Background

RTP funds – supplemented with funding from Maine Conservation Corps (MCC) and the Maine Department of Agriculture, Conservation, and Forestry – are supporting the efforts of two AmeriCorps Environmental Stewards. These individuals will serve in collaboration with MCC staff and an external evaluator to establish a system for assessing the current environmental condition and quality of Maine’s recreational trail systems.

### Project Work

MCC is hosting Molly Picillo and Raymond Menard as the 2019 Environmental Stewards. Ray and Molly offer a combined background in data collection, statistics, GIS, trail construction, and outdoor skills.

The Stewards’ service will take place in two primary phases during year-one. The initial portion of their term will be dedicated to:

- Receiving applicable training (e.g. trail standards, Leave No Trace, data collection tools and systems, backcountry skills, and Wilderness First Responder)
- Connecting with land managers to inform them of the project and collect their feedback on priority areas
- Organizing an action plan for the initiation of trail assessments during the field season, and
- Researching, creating and testing measurement tools, assessment equipment and field protocols.

These activities will occur into spring 2019. The remainder of the term will be spent collecting data in the field. Specifically, the Environmental Stewards will gather both interval and event-based data, including documenting:

- General trail characteristics (e.g. grade, slope, corridor width/height, tread width)
- Structures (e.g. bridges, steps, etc.)
- Problem areas (e.g. erosion, standing water)
- Unique features (e.g. scenic overlooks, waterfalls), and
- Signage information



Historically, Maine's state trails have been constructed per the desires and experience of local individuals. Each system, from corridor and tread, to signage and mapping, may vary greatly from place to place. Similarly, funding and maintenance are often channeled to managers with personal interests in outdoor recreation. This leaves some trails behind. A systematic assessment of Maine trails will provide quantitative measures to test the effectiveness of trail construction and maintenance interventions; prioritize future rehabilitation needs; and create a data set of trail characteristics to form a statewide trail classification system. Data will be used by multiple agencies, including RTP, to guide future decisions and priorities. The overall goal of the project is to bring consistency and best practices to the forefront of Maine's recreational trails.

## Eyebrow Loop Trail Rehabilitation Project

### Background

Maine Conservation Corps (MCC) partnered with Grafton Notch State Park to complete a multi-year rehabilitation project using RTP funding to supplement state park funds. Funding has been awarded each year since 2015, and MCC is scheduled to continue the project this year (2019). For the past four years, MCC Field Teams were assigned six to eight-week projects focusing on the rehabilitation of the Eyebrow Loop Trail within the park.

### Project Work

Project goals were to stabilize the trail with stone steps and add drainage structures to address erosion issues. In 2018, the team built 47 stone steps, two waterbars, and 30 feet of drainage ditching. Members served on steep and rugged terrain and were trained in specialized equipment to overcome these challenges. Team members learned how to use the grip hoist and set up a highline system in order to safely move rocks over steep slopes. Members were also trained to use the rock drill.

Grafton Notch State Park lies within Maine's Mahoosuc Mountain Range and offers rugged terrain for back-country hikers, including five miles of the Appalachian Trail. The Eyebrow Loop Trail is located in the western mountains of Maine, and links to the Appalachian Trail and is known to be one of the most challenging sections of trail because of the rugged terrain. Grafton Notch State Park is a popular hiking destination and has over 60,000 visitors annually. Trail improvements have created a safer and more stable trail for years to come.

### For More Information

#### **Maine Conservation Corps**

[www.maine.gov/dacf/mcc](http://www.maine.gov/dacf/mcc)

54 Independence Dr.  
Augusta, ME 04333  
(207) 624-6085



Left to Right: NYNJTC Conservation Corps alumni Peter Dolan, Erik Mickelson, Ellie Pelletier, Kevin Stamey and Timothy Palumbo

## Corpsmember Success Story

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### Trail Conference Corpsmembers-Turned Trail Employees New York-New Jersey Trail Conference

Four former New York-New Jersey Trail Conference (NYNJTC) Corpsmembers have become full-time staff members of the Trail Conference, and two became seasonal employees who oversaw the final two years of construction on the Bear Mountain Trails Project. The skills Corpsmembers learned during this technical project resulted in nearly 80 percent successfully finding post-Corps employment in trail work.

Peter Dolan was a Corpsmember the first year of the NYNJTC Corps program; he is now the Trail Conference Program Coordinator for the entire state of New Jersey.

Erik Mickelson served in the Corps' first year and is now the lead trail builder/field manager for the Trail Conference and NYNJTC's Conservation Corps. He oversees all of the layout and design work for the Corps.

Ellie Pelletier served as a Corpsmember on the Bear Mountain Trails Project for three years before becoming its seasonal field manager for the 2017 and 2018 seasons as an employee of the Trail Conference.

Kevin Stamey served as a Corpsmember on Bear Mountain then came back as a seasonal field manager on the project in 2017.

Victoria Welch started in the Corps in 2016, was hired on as a field manager, then chose to resign from that position so she could serve as a Corpsmember full-time on Bear Mountain in the 2018 season.

Timothy Palumbo served as a Corpsmember and later as a Crew Leader on the Bear Mountain project. After two seasons, Timothy became the co-owner of a professional trail and stonework company in the Lower Hudson Valley of New York.

*"It had been a long time since I had been proud of myself and felt a sense of accomplishment. To be able to feel like you fit in, are making a mark, and leaving a legacy is something everyone should get to experience."* - New York-New Jersey Trail Conference Conservation Corps alum

See contact information for **New York-New Jersey Trail Conference** on [page 42](#).



## Safety and Quality of Life

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Trails are an important part of our transportation infrastructure. Trails support the economy through tourism and civic improvement and provide opportunities for physical activity to improve fitness and mental health. Cities, suburbs, and towns all benefit from trails and greenways that make our communities more attractive to residents as well as employers. Trails also help our parks and open space by reducing crime and illegal activity through regular use and high visibility of users. Modest increases in property values near trails have also been documented.

### Case Study: Lombard Trail Great Basin Institute (Nevada)

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#### Key Terms

- ATV and OHV Trails
- Ecosystem Protection
- Historic Preservation
- Interpretation
- Ski and Snowmobile Trails

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#### Project Partners

- Bureau of Land Management
- Idaho Department of Parks and Recreation
- Idaho OHV clubs
- U.S. Forest Service

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#### DOT Strategic Goal Alignment

-  Infrastructure
-  Innovation
-  Safety

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#### Best Practices

This case study provides an excellent example of Corpsmembers providing technical trail work that leads to the economic development of the local community. Since its completion, the Lombard Trail has received significant use, spurring economic development by opening a new area for ATV and OHV trail users.





People enjoying the Lombard Trail.

## Background

Great Basin Institute (GBI) completed a project originally known as the Bayhorse Trail Connector. The project consisted of converting a network of user-created motorcycle trails and jeep roads into a designated ATV trail linking the town of Challis, ID to the Bayhorse Townsite, a mining ghost-town that has been converted into a “history park” and OHV trailhead by the Idaho Department of Parks and Recreation.

Starting at the Land of the Yankee Fork Interpretive Center at approximately 5,020 feet in elevation, the trail is 7.5 miles long and winds along the Blue Mountain and peaks out on land managed by the U.S. Forest Service at about 8,430 feet. The trail provides views of the Lost River Range, the Salmon River Basin, and skirts an Area of Critical Environmental Concern managed for Bighorn Sheep habitat.

This project was long desired by this central Idaho community and outdoor enthusiasts, including OHV clubs. Interpretive materials, trail layout and design, and trail construction were provided jointly by the Great Basin Institute and personnel from the Bureau of Land Management.

## Project Work

The primary work of this project, originally known as the Bayhorse Trail Connector, consisted of an innovative concept of converting a network of user-created motorcycle trails and jeep roads into a designated ATV trail linking the town of Challis, ID to the Bayhorse Townsite (see Background section above for more information).

GBI provided AmeriCorps restoration crews to rehabilitate the trailhead area and staff specialists to design the interpretive panels and oversee project implementation. A significant component of the project was route restoration at one of the trailheads where years of neglect had resulted in a tangle of roads, trails, and mud-bogs. An innovative technique called “vertical mulching” was utilized to rehabilitate the extraneous routes, disguising them to allow for eventual natural regeneration of grasses and shrubs.

### **Partnerships and Funding**

The project, which received \$102,313 in 2009 RTP funding, was truly a cooperative effort among federal, state, and nonprofit entities. Interpretive material, trail layout and design, and trail construction were provided by the Bureau of Land Management. The IDPR awarded and managed the RTP funding and also provided expertise and route maintenance once the trail was constructed.

### **Successes and Outcomes**

Open for more than five years, the Lombard trail continues to receive significant use and provides quality trail riding opportunities to residents and visitors alike. Simultaneously, it spurs economic development through enhanced outdoor recreation opportunities and the opening of a new area for ATV riders. This new network of trails provided riders a safe connection to the town of Challis, thus reducing or eliminating the need to ride on Highway 93. The project also met the objectives of the local land management plan by “provid[ing] economic benefits to the local community, in addition to high-quality recreation opportunities.”

In 2010, the IDPR approached the BLM with a request to rename the trail after IDPR board member Ernest Lombard, a longtime advocate for the development of the Bayhorse Townsite and associated OHV trail system.

### **For More Information**

#### **Great Basin Institute**

[www.thegreatbasininstitute.org](http://www.thegreatbasininstitute.org)

16750 Mt. Rose Hwy.  
Reno, NV 89511  
(775) 674-5475



**Winner:** Coalition for Recreational Trails  
Annual Achievement Award



## Workforce Development

FHWA supports the development of initiatives that enhance workforce development, ability, and diversity in key transportation sectors and disciplines. RTP funding can add to the success of workforce development for young people in economically distressed areas.

### Case Study: The Trails Across Texas Partnership and the Whispering Pines Trail, Tyler State Park Texas Conservation Corps at American YouthWorks (Texas)

#### Key Terms

- ATV and OHV Trails
- Boardwalks and Bridges
- Multi-Use Trails
- Trail Assessment
- Vegetation Management
- Wilderness Stewardship

#### Project Partners

- State Parks Division of the Texas Parks & Wildlife Department
- Texas State Parks
- Trails Across Texas

#### DOT Strategic Goal Alignment

-  Accountability
-  Infrastructure
-  Safety

#### Best Practices

The Whispering Pines trail project utilized RTP funding from previously cancelled grant projects. RTP grant dollars funded one TxCC trail crew to meet specific project needs. The 20 percent RTP match requirement was made utilizing a combination of funds secured through TxCC's indirect cost rate, park staff time, volunteer time, and donated materials.





Texas Conservation Corps Corpsmembers cut planks to be used in a bridge.

## Background

Since 2009, the State Parks Division of the Texas Parks and Wildlife Department (TPWD) has utilized RTP funds to partner with American YouthWorks' Texas Conservation Corps (TxCC) and operate a State Park Trails Crew. The State Park Trails Crew, known as Trails Across Texas or TAT, is a crew of eight to ten AmeriCorps members dedicated to new trail construction or major trail renovations in Texas State Parks. Each crew serves a roughly six-month season, travelling and working on three to four trail projects in various state parks around Texas. Over the past 10 years, crews have worked in over 20 Texas State Parks, working on projects as diverse as trail bridges and boardwalks in the swamps of East Texas, to rails-to-trails surfacing in the Panhandle, and new mountain bike trails in the mountains of West Texas. In addition to the Tyler State Park Project, the 2018 Trails Across Texas season also included continuing restoration of the Lost Pines Loop at Bastrop State Park, the beginning of multi-use trail development at the Bauer Unit of Guadalupe River State Park, and putting the final touches on the Ironweed OHV Trail System at Eisenhower State Park.

The Trails Across Texas partnership between TPWD and TxCC is funded utilizing RTP funds from previously cancelled grant projects. The yearly contract amount for one dedicated trail crew is roughly \$350,000, and TPWD has allocated additional money to the contract in recent years to allow for the hiring of additional crews to satisfy specific project needs. The 20 percent matching funds required for the Recreational Trails Program are made utilizing a combination of TxCC's indirect cost rate, park staff time, and in some cases volunteer time or donated materials. In the future, the agency aspires to contract with TxCC for two full-time dedicated trail crews.

The goal of the Whispering Pines project was to design and construct a resilient trail route that wove seamlessly into the natural setting and meshed with the existing structures built during the Great Depression by members of the Civilian Conservation Corps (CCC). The western section of the trail was routed near the proposed site of a new Visitor Center and allowed for a trailhead connection to that area. The rerouted area consisted of widening the trail corridor, and construction of five trail bridges and one boardwalk.

Originally started with the Texas Conservation Corps (TxCC) 2018 Trails Across Texas Spring Crew, the majority of work on the Whispering Pines Trail was completed by Corpsmembers on the 2018 Fall Crew. Both iterations of the TAT crew lived on site while working on the trail and bridges. At every step of the project, the Corps was met with help, advice, supplies, and

expertise from both the park staff and the Texas Parks and Wildlife Department (TPWD). After many hours of hard work, the redefined Whispering Pines Loop Trail opened to the public on October 24, 2018.

## Project Work

The primary purpose of this project was to reroute and replace a heavily eroded segment of the Whispering Pines Nature Trail with a sustainable and enjoyable trail route. The new 4,688-foot trail reroute was designed to allow a trailhead access point at the proposed site of a future Visitor Center. The Whispering Pines Trail Loop, originally constructed by the Civilian Conservation Corps (CCC), included two distinct eastern and western parts. The eastern segment that traveled along a creek and near several CCC-constructed pools, steps, and other rockwork, was in fairly good condition and required only minor maintenance work.

The heavily eroded western trail segment resembled a logging road and had no discernible CCC structures. This segment was rerouted to follow hillside contours and armored crossings. Additionally, four significant trail bridges were built to cross several drainages. The fifth bridge was built upon the site of a deteriorating bridge that was demolished and removed.

Prior to the TAT crew beginning work, TPWD and TxCC walked through the proposed site that would become the improved Whispering Pines Loop Trail. To give the crew an on-the-ground blueprint to build the trail, pin flags were laid where the trail was supposed to weave. When TAT initially arrived at Tyler State Park, the first task was to begin cutting in the trail tread using hand tools. Standard trail building methodology was employed, removing organic matter from the surface and benching the uphill side. Cedar logs were locally sourced from a neighboring site and stacked on top of each other on the downhill side. One of the final steps was to rehabilitate the section of the trail that was closed. Large areas were camouflaged with downed branches and other material to keep visitors from accidentally wandering onto the old trail. Drains were built to divert excess water and slow erosion. Some native plants, such as American Beauty Berry, were sourced from elsewhere around the trail and transplanted to help revegetate the beaten path.

## For More Information

### **American YouthWorks, Texas Conservation Corps**

[www.americanyouthworks.org](http://www.americanyouthworks.org)

1901 E. Ben White Blvd.  
Austin, TX 78741  
(512) 744-1904

# Appendix

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## Trail Builder Glossary<sup>3</sup>

**Backslope:** The excavated bank on the uphill side of a trail tread.

**Berm:** The raised outside edge of a trail.

**Blowdown:** A fallen tree across the trail.

**Bucking:** Sawing a fallen or horizontal log.

**Duff:** Ground cover consisting of organic matter such as needles, leaves, twigs, etc.

**Fill:** Gravel or soil used to fill gaps in trails.

**Grade:** Percent slope of trail measured as feet rise/100 feet run.

**Grubbing:** Digging out roots and other organic material.

**Inside Edge:** On a hillside trail this is the up-hill side of the trail.

**Inslope:** The inside edge of the trail is lower than the outside edge.

**Mineral Soil:** Soil that has little or no organic matter. The good soil in trail building.

**Outside Edge:** On a hillside trail this is the down-hill side of the trail.

**Outslope:** The outside edge of a trail being lower than the inside edge to promote drainage.

**Puncheon:** A boardwalk-type bridge often built through boggy areas.

**Sill:** Part of a bridge; logs that sit on the ground and support perpendicular stringers.

**Slough:** Silt and organic debris that have slid down onto the trail.

**Switchback:** A sharp reversal in the direction of the trail, allowing the tread to maintain a reasonable grade as it climbs a steep hillside.

**Tread:** The travel surface of the trail.

**Trail Corridor:** The full area of the trail including the tread and the zone on either side of the tread and above the tread from which brush and limbs must be removed.



## Annual Trail Awards

### COALITION FOR RECREATIONAL TRAILS

#### Coalition for Recreational Trails Annual Achievement Awards:

This awards program, established in 1998, recognizes outstanding uses of Recreational Trails Program (RTP) funds, showcasing excellent projects made possible by RTP funding and enhancing awareness and appreciation of the RTP among Members of Congress and other key officials. This award is given out by the Coalition for Recreational Trails (CRT), a federation of national and regional trail-related organizations.



#### The Corps Network Project of the Year Award :

The Project of the Year Award celebrates the important services Corps provide to communities and young people across the country. Projects of the Year are innovative and demonstrate a Corps' ability to give Corpsmembers a positive experience and provide the community with meaningful improvements. Winners of the Project of the Year award are chosen from nominations submitted by member organizations of The Corps Network.

## Key Terms

**Accessibility:** Project work helped create user-friendly and ADA-compliant trails.

**ATV and OHV Trails:** Project work involved the design, construction and maintenance of all-terrain vehicle (ATV) and off-highway vehicle (OHV) trails.

**Bike Trails:** Project work benefited cyclists and mountain bike recreation users.

**Boardwalks and Bridges:** Work involved highly technical trail, boardwalk, and bridge construction.

**Drainage Design:** Project work involved the construction and design of sustainable trail drainage systems, such as retaining walls, dams, and waterbars, for the purpose of mitigating trail erosion.

**Ecosystem Protection:** Project work involved protecting sensitive and endangered ecosystems along trail corridors.

**Historic Preservation:** Corpsmembers utilized traditional tools and methods and received training and mentorship from experienced preservationists.

**Interpretation:** Project involved providing environmental education and trail interpretation for the community and trail users.

**Logging:** Work involved felling, sawyering, limbing, and use of traditional logging tools.

**Rock Work:** Corpsmembers performed highly technical rock work designs - including retaining walls and staircases - and utilized tools such as rock bars, bit drills, and jackhammers.

**Mechanical Operations:** Trained Corpsmembers operated heavy mechanical equipment, such as excavators and loaders, for trail development and design.

**Multi-Use Trails:** Project work involved the maintenance or construction of multi-use trails that benefit the recreation of various users, such as equestrians, hikers, bikers, runners, etc.

**National Scenic and Historic Trails:** The 30 National Scenic and Historic Trails (National Trails) are congressionally designated corridors that contain significant recreational, scenic, historic, natural and cultural elements. These trails — stretching for a hundred or thousands of miles each and more than 55,000 miles in total — connect with 70 wildlife refuges, 80 National Parks, 90 Bureau of Land Management areas, 90 National Forests, 123 Wilderness Areas, and 100 major metropolitan areas.<sup>4</sup>

**Single-Identity Crews:** Work was completed by a crew that is intentionally comprised of Corpsmembers of a single-identity for the purpose of creating community and an inclusive trail work culture. Examples could include crews of all tribal youth, all military veterans, etc.

**Ski and Snowmobile Trails:** Trail work and design benefited ski and snowmobile recreation.

**Trail Assessment:** Project involved trail inventory, assessment, and data collection and analysis.

**Tribal and Indigenous Communities:** Project work directly benefited tribal youth, communities, and indigenous people.

**Vegetation Management:** Project work involved invasive species management, remediation, and planting native species.

**Wilderness Stewardship:** Corpsmembers developed stewardship skills, such as learning the principles of Leave No Trace (LNT), learning how to use traditional hand tools, and performing trail projects in a backcountry setting.

## List of Corps Featured in the Guide

### Mountain

- Conservation Legacy:
  - Arizona Conservation Corps
  - Southwest Conservation Corps
- Great Basin Institute
- Rocky Mountain Youth Corps-New Mexico
- Utah Conservation Corps

### South

- American Conservation Experience (ACE), Southeast
- Conservation Corps North Carolina
- American YouthWorks, Texas Conservation Corps

### Northeast

- Green Mountain Club
- Maine Conservation Corps
- Maryland Conservation Corps
- New York-New Jersey Trail Conference Conservation Corps
- Vermont Youth Conservation Corps

### West

- California Conservation Corps
- Kupu – Hawaii Youth Conservation Corps



## Endnotes

- 1 U.S. Department of Transportation Federal Highway Administration. 2017-2018 Recreational Trails Program Annual Report, 2018. Web. 11 March 2019.
- 2 U.S. Department of Transportation Federal Highway Administration. 2019 Recreational Trails Program Annual Report, 2019. Web. 10 May 2019.
- 3 "Trail Work Glossary." Washington Trails Association, 26 April 2019, <https://www.wta.org/get-involved/volunteer/about-trail-work/trail-work-guide/trail-work-glossary>.
- 4 "National Trails System." Partnership for the National Trails System, 8 May 2019, <http://pnts.org/new/national-trails-system/>

## Credit for Icons

**Strategic Priorities - Safety:** Icon made by [Good Ware](#) from [www.flaticon.com](http://www.flaticon.com)

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## Contact Information:

[programs@corpsnetwork.org](mailto:programs@corpsnetwork.org)

(202) 737-6272

### **The Corps Network**

1275 K Street NW - Suite 1050

Washington, DC 20005

@TheCorpsNetwork

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