

# Augmenting Conservation Hiring

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## A Needs Analysis of Diversity-Focused Conservation Recruitment Practices

The Park Institute of America - 2023

*"The composition of the workforce must better reflect the diversity and talent of America."*

- National Park Service (2001), Rethinking the National Parks for the 21st Century, p. 12



## Introduction

Conservation work is an integral component of the United States' culture and economy, fostering public interest in natural environments, providing multi-sector employment for individuals with a very wide variety of skill sets, facilitating scientific breakthroughs and technological innovation, and ensuring habitat and species protection objectives are met. On a global scale, conservation work is not only essential for protection of biodiversity, but climate change mitigation as well. The United Nations' 2022 Convention on Biological Diversity framework features a "30x30" target of 30% global protected area coverage by 2030, which will only be possible with a major expansion in personnel (IUCN, 2023). But many of the very organizations leading these important local, national, and global conservation initiatives already experience chronic understaffing.

Simultaneously, diversity among conservation employers remains significantly below levels now seen in the overall civilian labor force, impacting efforts to keep conservation relevant to future generations. And while protected area visitation has been increasing, the overwhelming majority of visitors remain white even as the United States becomes increasingly diverse, an issue that limited staff diversity has likely exacerbated. Some conservation employers have intentionally worked to increase in racial and gender representation over the past two decades, but these changes have not kept pace with the rising staffing needs and have not spread quickly enough to all conservation sectors. Addressing employment and visitation issues will require innovative approaches integrating insights from every sector, beginning with an analysis of the primary obstacles to improvement.

This report examines the current state of conservation recruitment. It aggregates and synthesizes data, testimonials, and recommendations from over 60 sources – including academic studies, non-governmental research, agency planning documents, press articles, and industry surveys - the majority of which were published within the past four years. The report is organized into three parts. The first section details the scale of staffing and workforce diversity challenges that conservation employers face, exploring both the origins and the impacts of these limitations. The second section reviews how conservation employers are currently attempting to diversify their labor force by using various recruitment approaches, training programs, and ancillary benefits. After identifying a prominent gap in the collective conservation recruitment effort, the final section outlines a single recommendation: creating an applicant resource with key features needed to reach previously excluded and/or uninterested candidates.

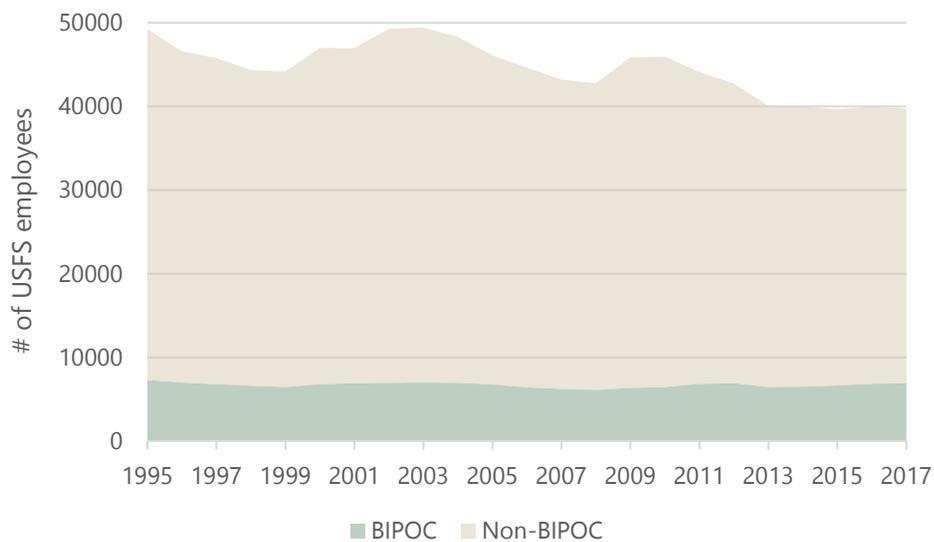
By explicitly addressing the longstanding gaps in conservation staffing capacity and developing solutions to fill those gaps, the Park Institute of America hopes to improve the ability of conservation stakeholders to serve an increasingly diverse community of prospective users.

# The Problem

## STAFFING LIMITATIONS

The challenge of recruiting and staffing conservation positions is not new but has become increasingly severe over the past few decades, impacting federal agencies, state park bureaus, and non-profit conservancies alike.

**Federal Agencies** - Major national parks have seen significant increases in visitation since 2000 but overall declines in employment. At Zion National Park, visitation increased by 68% from 2011 to 2019, but staffing dropped by 16% (NPCA, 2022). Across the entire park system, the number of permanent US National Park Service (NPS) employees fell from almost 6% between 2010 and 2020 (NPS, 2021). As shown in Figure 1, this trend is not limited to NPS. From 1995 to 2017, the number of US Forest Service (USFS) employees fell about 19% (Westphal et al., 2020). Likewise, the US Fish and Wildlife Service (USFWS) has lost 800 staff since fiscal year 2011, or a 25% drop in capacity (Taylor, 2023). The problem is perhaps worst of all in the Bureau of Land Management (BLM). As of 2021, there was one BLM employee for every 31,499 acres of agency-managed land, as compared to 6,810 acres for NPS and 8,306 acres for USFS. Staffing limitations are significantly more acute in certain administrative units. In one exceptional case, the Nevada unit of BLM has one employee per 78,049 acres on average (PEER, 2021). By one employee's estimate, there is only one wildlife biologist per three million acres, severely hampering data collection and landscape conservation efforts.



**Figure 1** - Forest service workforce numbers and ethnic composition from 1995 to 2017. Adapted from "USDA Forest Service employee diversity during a period of workforce contraction," by Westphal, L. M., Dockry, M. J., Kenefic, L. S., Sachdeva, S. S., Rhodeland, A., Locke, D. H., Kern, C. C., Huber-Stearns, H. R., & Coughlan, M. R (2022). *Journal of Forestry*, 120(4), 437.

**State Agencies** - Many state parks have fared no better. Connecticut state park visitation, for example, has more than doubled since 1984, while staffing has more than halved ([Friends of Gillette State Park, 2021](#)). State parks around the north California recreational hotspot of Lake Tahoe have seen similar staffing issues, prompting discussion of temporary park closures ([Thomas, 2023](#)). And in Oregon, staffing levels have declined despite revenue increases, with staffing at only 60% of target levels ([Demkovich, 2023](#)).

## Causes

While many staff declines can be attributed to simple funding deficits and eliminated positions, there remain significant staffing shortages for existing positions, with many contributing causes across public and private sector conservation employers.

- **Unclear growth potential** - In the 2022 Outdoor Industry Workforce Assessment Survey conducted by the Center for the Outdoor Recreation Economy (CORE), 37% of respondents mentioned the lack of career path clarity as a key barrier to recruitment, prompting the industry association to establish “[d]eveloping and ensuring transparent promotion and advancement pathways” as a major goal for the future ([CORE, 2022, p. 25](#)).
- **Lack of applicants** - 66% of respondents to the same survey also listed an insufficient number of qualified applicants as the primary recruitment barrier. The NPS’ 2018 Voices report similarly cites finding qualified applicants as a major obstacle ([NPS, 2019](#)).
- **Elaborate hiring process** - The same NPS’ 2018 Voices report attributes cause to an overly complicated hiring process that discourages candidates from applying ([NPS, 2019](#)).
- **Lack of housing** - Housing is often cited as a significant barrier. In Alaska, the USFS has had difficulty recruiting firefighters because of a lack of affordable housing ([Herbert, 2023](#)). Likewise, Acadia National Park usually hires about 150 seasonal workers per year but can only house 70. Acadia’s visitation has increased 70% over the last decade, but the park continues to be understaffed, with only 120 seasonal workers in summer 2022, something the park superintendent believes is a consequence of housing unavailability ([Ogrysko, 2022](#)).

## Consequences

The consequences of conservation staffing shortages are not confined to the US but represent a global challenge for conservation efforts. A 2022 study suggests that there are roughly 555,000 protected area staff currently around the world; a woefully insufficient number to manage existing protected areas, let alone those not yet established (Figure 2). According to the authors, achieving the “30x30” target will necessitate about 3 million staff. As a proponent of global conservation efforts, the US should play a major role in this transformation but has failed to meet expectations. The study suggests that less than 1% of protected areas in North America have staffing densities that meet or exceed average requirements (Appleton et al., 2016).



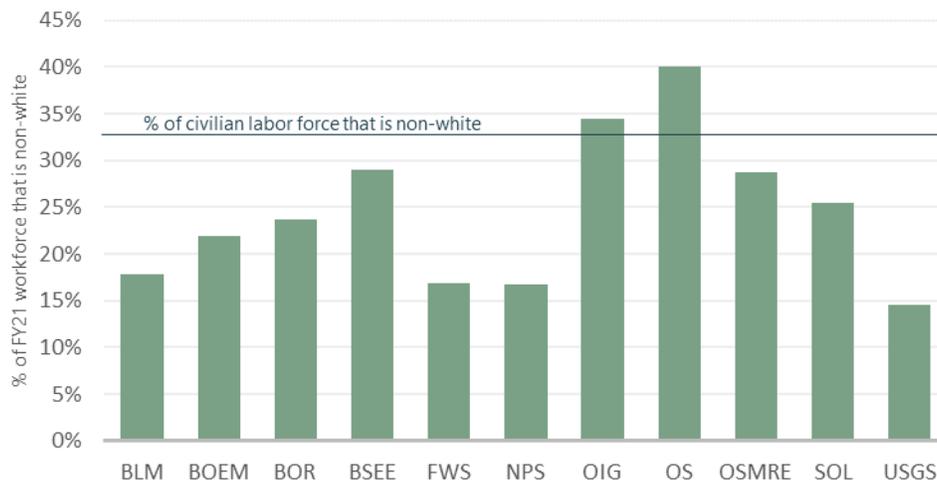
**Figure 2** - Representation of global conservation workforce size and needs. Adapted from “Protected area personnel and ranger numbers are insufficient to deliver global expectations,” by Appleton, M. R., Courtiol, A., Emerton, L. et al. (2022). *Nat Sustain* 5, 1105. <https://doi.org/10.1038/s41893-022-00970-0>

## DIVERSITY LIMITATIONS

Significant racial, ethnic, and gender diversity deficits remain in conservation employment, further compounding protected area staffing shortages.

**Federal Employers** – From 1995 to 2017, the percentage of female employees in USFS declined from 38% to 34% and while the percentage of non-white employees increased from 15% to 17% (Figure 1), the number on non-white USFS staff remained flat (Westphal et al., 2020). Similarly, 78.5% of the 2020 NPS workforce was white, while women made up only 37.8% of the workforce (NPS, 2021). That same year, more than 82% of USFWS employees were white (Doyle, 2020). Data collected from 2006 to 2018 suggest that increased percentages of minority employees in federal natural resource organizations during this period were primarily a result of decreases in overall employee numbers, not recruitment gains of minority candidates (Mejicano et al., 2022).

As shown in Figure 3, the vast majority of Department of Interior (DOI) agencies had a smaller percentage of non-white employees than the civilian labor force as of FY 2021 (DOI, 2022).



**Figure 3** - Percentage of non-white employees by DOI agency as of FY 2021. Retrieved from “Strategic Plan to Advance Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce,” by Department of the Interior (2022).

**State Employers** - Similar patterns of underrepresentation can be seen in state-level agencies. In the Wisconsin Department of Natural Resources (WDNR), 92.3% of employees were white and 65.1% of employees were male as of 2022 (WDNR, 2022). The Pennsylvania Department of Conservation and Natural Resources (PDCNR) 2022 workforce was 98.5% white and 75% was male (PDCNR, n.d.).

**Non-profit & Non-governmental Employers** - Employment diversity deficits are also apparent in non-governmental organizations (NGOs), many of which are heavily involved with protected area management, advocacy, and conservation. A 2015 study of 324 environmental NGOs found that 56.4% of them had not hired any minority employees in the last five years (Taylor, 2015).

**For-profit Employers** - Industry association surveys show similar demographic disparities within the outdoor recreation sector. According to a 2019 survey of 1,405 outdoor industry employees, 57% of respondents were male and 89% were white (SNEWS, 2019). Of the 37% of CORE-surveyed organizations that did not have a diversity plan implemented in 2022, 95% had no plan to establish one or were unsure. Only 18% had developed diversity-focused recruitment materials, while only 12% had employee ambassadors meet with potential employees (CORE, 2022).

## Causes

The limited diversity seen in American conservation can be traced back to the origins of both the conservation movement and the nation itself. Although far too extensive to capture in this report, many of the racist and discriminatory practices that have perpetuated park exclusion are embodied in a few notable examples. New York City's famous Central Park, the first landscaped public park in the United States, was created in the 1850s by evicting the predominantly Black community of Seneca Village (CPC, 2018). Subsequently, Central Park rules prohibited activities such as picnicking, music, and sports, instead prioritizing walking and sightseeing. These latter activities were seen as more in line with white middle-class values and the belief that parks could serve to "instruct" lower-class visitors about proper behavior (Lee et al., 2022).

Early US national parks, likewise, were established following the expulsion of Native communities, who were given no say in their management. Many of the architects of the national parks, such as Theodore Roosevelt, disparaged Native Americans and saw no place for them in the park system (Lee et al., 2022). The creation of state parks, which first appeared in the early 20th century, was similarly marred by prejudice. Many state parks in Southern states were inaccessible for Black visitors because of segregation. According to a 1952 study of nine Southern states, 180 state parks were available for the use of white visitors, but only 12 for Black visitors (Lee et al., 2022). Segregation was also present in Southern units of the national park system. Black visitors to these parks encountered separate, often inferior, facilities or sometimes none at all where park authorities believed demand was insufficient (Repanshek, 2019).

Historical discrimination has impacted park employees as well. During the Great Depression, around 200,000 African Americans were employed in the Civilian Conservation Corps (CCC) program, which sought to address unemployment while maintaining public lands (Hendricks et al., 2006). In contrast to white CCC workers, however, few were given the opportunity to advance to permanent NPS positions after the segregated program's conclusion. In 1942, only 1.6% of the DOI workforce was Black. Like visitors, African Americans who worked in NPS units were often required to use segregated housing and facilities (Devlin, 2022). According to James Lewis, a historian with the Forest History Society, female USFS employees were largely excluded from field positions until the 1970s, while white men dominated leadership positions (Lewis, 2005). Melody Mobley, the USFS' first Black female forester, encountered frequent racism and sexism during her almost 30-year career, including unfair treatment from supervisors (Mobley, 2021). In 1997, nearly 300 Black USFS employees sought a class-action lawsuit against USDA on account of workplace discrimination (Holl, 1997).

Similar patterns of discrimination pervaded the private outdoor recreation sector. Beginning in the late 19th century, many African Americans worked in resorts. These workers experienced discrimination from white visitors, poor housing and work conditions, and in some cases physical threats to leave their places of employment. Opportunities for career advancement in the leisure industry were frequently denied because of racism (Kahrl, 2022).

Concurrently, many NGOs associated with recreation were reluctant to advocate for environmental justice and the interests of marginalized groups, cementing their image as entities catering to white male recreationists. In 1970, only 15% of Sierra Club members strongly believed the organization should “concern itself with the conservation problems of such special groups as the urban poor and ethnic minorities.” A 1967 Conservation Foundation conference similarly yielded an estimate that only “between 1% and 15% of the environmental movement” had interest in social justice work (Taylor, 2014). In 1990, activists alleged that minorities represented only 2% of employees for the Audubon Society, Sierra Club, Natural Resources Defense Council, and Friends of the Earth (Purdy, 2015).

## Consequences

Discrimination based on race, gender, and ethnicity is no longer public policy, but its legacy remains a major obstacle to eliminating underrepresentation in protected area use and employment. Black prospective visitors often perceive public parks as unsafe, a product of institutional racism both within and adjacent to parks (Lee & Scott, 2016). For marginalized communities, the association of parks with historical violence, exclusion, and economic disparity makes visiting parks unattractive (Mock, 2016). Many natural areas are still “coded as ‘white’ spaces,” lacking diversity in promotional material and programming (Weber & Sultana, 2012). Antietam National Battlefield, for example, made no mention of the Emancipation Proclamation despite its relevance to the battle, part of a trend of NPS content failing to discuss history relevant to minority groups. While efforts are already underway in NPS to introduce diverse interpretive content, the long history of its absence has discouraged visitation (Weber & Sultana, 2012). Even today, exclusionary perceptions of parks are regularly reinforced by the antagonistic behavior of certain white park-goers. In 2020, for example, a woman in New York’s Central Park called the police on Christian Cooper, a Black birder who requested she leash her dog in compliance with park rules (Moore, 2022).

These perceptions and lived experiences have profound impacts on minority visitation across nearly every park system. The 2011 NPS Comprehensive Survey of the American Public found that only 28% of African Americans and 32% of Hispanics, as compared to 53% of white respondents, had visited a national park in the two-year period prior to the survey (Taylor, 2011).

Many state parks display similar trends. In one study of three Georgia state parks, about 82% of visitors to park trailheads were white, while only about 6% were Black (Lee et al., 2022).

While often portrayed as distinct issues, the lack of diversity in park visitation and the ongoing staffing shortage in conservation sectors are deeply interconnected. Park visitation impacts workforce development in two key ways.

- **Predisposition to nature** - Early and frequent exposure to natural environments increases the likelihood an individual will consider outdoor careers (Hayes et al., 2015).
- **Inclusivity** - Employees rightly question the inclusivity of a career field whose primary constituents – visitors in the case of parks - are predominantly white, often leading to discouragement and feelings of tokenism (Mock, 2016).

These dynamics explain why efforts to decrease barriers to minority park visitation must be accompanied by efforts to increase minority employment in park and conservation sectors.

Many current conservation workers suggest the obstacles to diversifying the conservation field go far beyond cultural legacies. These employees cite ongoing challenges of resource availability worsened by bureaucratic inertia and outright indifference toward employee diversification. In one series of interviews, 18 minority recreational professionals identified significant obstacles to diversity in parks, including a lack of access to non-English content, an unwillingness to expand the scope of content and alter established methods, and a lack of representation among staff, often weakening relationships with minority communities (Allison & Hibbler, 2004). Likewise, when conducting interviews with urban-adjacent national park managers as well as office and program administrators, one research team found many respondents placed great importance on improving parks' commitment to workforce diversity but felt there was currently insufficient support for such measures (Schuett & Bowser, 2006).

According to the USDA Coalition of Minority Employees in 2016, there was continued opposition in USFS to the hiring of more women, as well as ongoing issues of job discrimination, physical and sexual assault, and racial discrimination (Donnelly, 2016). The 2018 NPS Voices report similarly notes the continuing perception that NPS hiring processes are influenced by prejudice as well as ongoing workplace harassment and discrimination (NPS, 2019). Employees across all federal natural resource agencies have observed difficulties in recruiting students of color, citing inadequate funding for internships and a lack of venues to promote opportunities as the primary shortfalls (Haynes et al., 2015). Even with the benefit of online resources and announcements, awareness of the variety of careers available is often limited (Stanfield McCown et al., 2012).

# Current Efforts

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*"Increasing minorities in the workplace not only addresses equity issues but also allows organizations to incorporate more diverse experiences, expertise, and points of view."*

- Haynes et al. (2015), A Life-Cycle Analysis of Minority Underrepresentation in Natural Resource Fields, p. 228

In addition to the moral imperative of redressing exclusionary park practices, conservation goals like "30x30" are unachievable without stronger, equitable participation in the conservation workforce. Significant barriers to diversity in conservation still exist, and the issue is likely to worsen if left unaddressed. By 2060, the United States population is projected to grow about 25%, to more than 404 million individuals, while the non-Hispanic white population is expected to decline by about 19 million, from 76.9% as of 2016 to 68% (Vespa et al., 2018). As the nation's demographics shift, improved outreach and employment among minority populations will be essential for the future of American parks and their partners, helping to ensure that they serve all visitors' needs.

The consequences of continued insufficient action are cyclical. If fewer staff are available to organize and participate in community outreach efforts, for example, the outreach is likely to be less effective, weakening its impact on visitation. Likewise, if parks fail to appeal to a diversity of visitors, especially children, fewer individuals are likely to develop an interest in conservation, further exacerbating staffing challenges. These limits on staffing hinder effective management under international "30x30" targets, weakening both our planet and the US's reputation as a leader in global conservation.

Fortunately, just as the consequences of exclusive hiring and visitation are cyclical, so are the solutions. The relevancy model shown in Figure 4 depicts how components of successful diversity initiatives are reinforcing and have the potential to impact both visitation and staffing.



**Figure 4** - Conservation relevancy model. Adapted from "Engaging New and Diverse Audiences in the National Parks: An Exploratory Study of Current Knowledge and Learning Needs," by Stanfield McCown, R., Laven, D., Manning, R., & Mitchell, N. (2012). *The George Wright Forum*, 29(2), 275.

## Federal Efforts

*“The Park Service must recognize that the complexion of America is changing. More minorities must be included in the workforce, which, if more representative of the nation, will in turn attract a broader representative range of park visitors.”*

- National Park Service (2001), *Rethinking the National Parks for the 21st Century*, p. 13

Federal agency interest in promoting staff diversity is apparent through their new approaches to conservation recruitment. In 2022, USFS released an equity action plan expressing its commitment to a new recruitment strategy, which would emphasize expanded career resources for new employees (USFS, 2022). DOI’s 2022 strategic diversity, equity, and inclusion (DEI) plan, meanwhile, emphasized the development of tools to promote applicants’ understanding of position requirements, as well as the need to “support outreach and recruitment activities for targeted job opportunities, including paid internships” (p. 20). While USFWS does not appear to currently have a comprehensive DEI plan, its 2017 analysis of barriers to diversity described a need to streamline the application process and list position prerequisites only as necessary (USFWS, 2017). In 2012, the NPS director issued an order regarding diversity commitments, noting the value of employee diversity in promoting diverse visitation while seeking “to build a workforce that always reflects the diversity of our citizenry at all locations and levels” (p. 3).

## Deep engagement

NPS units have at times served as a source of research on approaches to diversity. Drawing on findings from the Santa Monica Mountains and Boston Harbor Islands national recreation areas, NPS’s “Beyond Outreach Handbook” for engaging with diverse communities emphasizes the importance of committing to *deep engagement*, defined as outreach programs for diverse youth that go beyond the scope of standard, short-term activities and programming. One of the key long-term outcomes of deep engagement is workforce expansion and diversification, something the handbook’s authors describe as a major asset to community engagement efforts (Stanfield McCown et al., 2011).

NPS researchers have also noted the likely attractiveness and utility of creating content that illustrates the full range of career possibilities within the agency (Stanfield McCown et al., 2012). Many emerging programs are following recommendations that federal agencies focus on “providing mentors, scholarship opportunities, training to provide greater cultural competency, networking with diverse stakeholders, and improving facilitation and communication skills between stakeholder groups” (Haynes et al., 2015).

*“Develop a workforce that values diversity and an inclusive work environment so that we can recruit and retain diverse employees and respond to the needs of the American public.”*

- National Park Service (2015), A Call to Action, p. 23

## State Efforts

*“Increase or maintain our visibility as an employer with existing colleges / universities and increase focus on Jr. High and high school level audiences.”*

- Oregon DFW (2020), 2020 Workplace Inclusion Plan, p. 5

State resource management agencies have prioritized recruitment diversity as well. The Oregon Department of Fish and Wildlife (ODFW) published its 2020 workplace inclusion plan which seeks to remove exclusionary language and increase visibility among diverse college, university, and high school students (ODFW, 2020). The Texas Parks and Wildlife Department’s 2023-2028 diversity and inclusion strategic plan, meanwhile, seeks to “ensure that all engagement efforts and volunteer programs are fully leveraged” and to use images and messaging that better reflect the target audience (TPWD, 2023). The Wisconsin Department of Natural Resources (WDNR) 2022 equity and inclusion plan similarly describes a variety of methods to advertise positions, including a recruitment tool leveraging narrative content from current staff (WDNR, 2022).

## NGO Efforts

*"[I]dentify the barriers to entering conservation careers and prioritize actions for TNC that have the greatest ability to address equity in order to build a more diverse and inclusive culture in conservation."*

- The Nature Conservancy (2022), DEI Action Plan, p. 10

Many prominent environmental NGOs have similarly recognized the need to attract candidates with broader experiences and have incorporated diversity benchmarking into their strategic plans and recruitment practices. The Wildlife Society's 2019 strategic plan, for example, states that diversity strengthens management, research, and policy-making, placing significant emphasis on minority outreach efforts. The National Recreation and Park Association (NRPA) similarly includes equitable hiring practices as a component of its 2021 Equity Action Plan (NRPA, 2021). Employees of The Nature Conservancy (TNC) previously cited limited current employee diversity as well as the perception that TNC's work was focused on rural, less ethnically diverse areas as major deterrents to employee diversification, with many staffers concerned by the lack of diversity in conservation as a whole (Chattulani, 2008). According to its 2022 DEI annual report, TNC has since implemented a paid training program for prospective female firefighters, a youth education program, and a broader commitment to diversity in recruitment (TNC, 2022).

## Private-Sector Efforts

Concern for recruitment diversity is not limited to governmental and non-profit employers. Private firms in the outdoor recreation and retail industry have begun prioritizing workforce diversity initiatives (England, 2022). According to a 2022 report on DEI from the outdoor industry association CORE, about 60% of surveyed organizations either have a diversity plan or are in the process of creating one. Prominent organizational goals for many companies included having a diverse pool of candidates for open positions, improving attempts to recruit underrepresented employees, and promotion and advancement pathway transparency. Of the companies surveyed, 52% incorporated inclusive language into job descriptions, 51% engaged in social media outreach, 46% engaged in community outreach, 35% advertised in diversity publications or job boards, and 18% had developed diversity-oriented recruitment materials and brochures (CORE, 2022).

# The Gap: Conservation Career Map

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While data regarding the success of public, private, and NGO diversity initiatives are currently sparse, the persisting lack of diversity in conservation employment coupled with the ongoing staffing shortages suggest that these efforts have not yet fully addressed the many recruitment barriers identified. Improved organizational outreach and increased resourcing for hiring managers represent major components of recruitment reform, but these alone cannot solve the workforce and diversity limitations threatening conservation progress. The available research indicates that organizations across each conservation sector would benefit from the development and broad deployment of innovative recruitment tools that elevate awareness and understanding of *all* conservation careers.

## Recommendation

*“Provide tools to increase outreach/awareness and support legitimate, nondiscriminatory candidate review/selection.”*

- DOI (2022), Strategic Plan to Advance DEIA in the Federal Workforce, p. 19

The Institute recommends addressing the current diversity challenges and staffing shortages by creating a tool that combines engaging design and storytelling with quick access to relevant information about careers across a variety of conservation sectors. Candidates deserve a resource with consolidated information about the work, roles, pathways, and overlapping sectors of the dynamic and often opaque conservation career field. Job seekers, as well as the conservation employers struggling to attract their talent, need a *conservation career map*.

A well-designed career map would be an enduring resource for a consistently large number and wide variety of users, especially those candidates curious about conservation careers but little to no knowledge of individual positions or advancement routes. A career map would not replace existing career resources, job boards, and employer-led outreach initiatives but would instead complement those tools by expanding their reach. It would prepare its users for a deeper exploration of their interests, concluding with employment in a suitable position and the potential for career advancement.

Through its categorization of conservation careers, presentation of statistics, and incorporation of diverse perspectives through storytelling, a career map would give prospective conservation candidates a better sense of the scope of options available. Ultimately, applicants deserve to evaluate career options not simply on the basis of salaries and position requirements, but also with consideration for the lived experiences and career journeys of actual professionals that these candidates can relate to. Candidates need the **information, confidence, and resources** to make informed decisions about whether to pursue a career in conservation or not.

With these fundamental objectives in mind, this section details seven key attributes that an effective conservation career map should include.

## 1. Entry-Level Focus

*"[Develop] and [implement] a data-driven, agency-wide, workforce strategy focused on entry-level positions,"*

- U.S. Forest Service (2022), 2022 Equity Action Plan, p. 15

Outreach and recruitment tools must be oriented towards entry-level applicants as the primary audience. As acknowledged by state and federal stakeholders, attracting high school and college aged youth in particular is likely to be key to the long-term viability of recruitment diversification efforts. The Oregon DFW's workplace inclusion plan, for example, seeks to expand awareness of career opportunities at colleges and universities while devoting more resources to high school outreach (ODFW, 2020). The USFS' 2022 equity action plan similarly includes a focus on entry-level positions (USFS, 2022).

Accordingly, the career map should include stories not only from those already in high-level positions, but also from younger individuals who have recently begun their career journeys. While the tool should be easily accessible to applicants of all ages and experience levels, particular emphasis should be placed on ensuring an abundance of entry-level positions are represented and that their requirements, as well as the means of progression to higher levels, are clearly conveyed.

*"Create deep connections between a younger generation and parks through a series of diverse park experiences."*

- National Park Service (2015), A Call to Action, p. 9

## 2. Direct Engagement

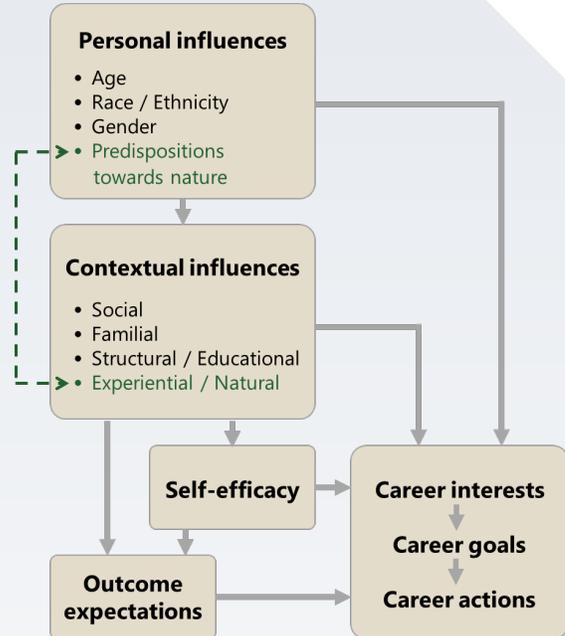
*“To address barriers, recruitment programs that highlight successful individuals will support positive outcome expectations and goals of interested individuals.”*

- Haynes et al. (2015), A Life-Cycle Analysis of Minority Underrepresentation in Natural Resources Fields, p. 235

The career map should facilitate direct engagement with users by providing narrative examples that prospective applicants, especially those interested in entry-level positions, can relate to. These narratives should be provided through recorded interviews with a diverse assortment of current conservation employees, linked to relevant position profiles spanning a wide range of inter-sector career paths. Employee testimonials are meant to give users confidence regarding career path options, many of which may seem intimidating without a grounding narrative. Although interviews provide opportunities to increase a candidate’s awareness of a given role’s duties, expectations, and advantages, one of the most important aspects of testimonials should be the challenges experienced in these positions and how each interviewee processed and/or overcame them. With the assistance of these narratives, users should be better equipped to make full use of the data featured within each career profile and any career path resources.

### Self-efficacy

A key aspect of engagement is *self-efficacy*, something described as “beliefs in the capacity to succeed in specific tasks” (Haynes et al., 2015). Individuals with greater self-efficacy are more likely to successfully apply for conservation careers, expanding the pool of qualified applicants. Experiential and social influences, including access to career information and familiarity with recruitment (see Figure 5), have the potential to greatly promote self-efficacy (Haynes et al., 2015). By leveraging these influences, the tool should not only offer applicants the information necessary to succeed, but also build a strong sense of self-efficacy.



**Figure 5** - A visual model for conservation career influences. Adapted from “A Life-cycle Analysis of Minority Underrepresentation in Natural Resource Fields,” by Haynes, N., Jacobsen, S. K., & Wald, D. M. (2015). *Wildlife Society Bulletin*, 39(2), 229.

Storytelling has already featured in conservation recruitment efforts. The Sustainable Forestry Initiative's document *Black Faces in Green Spaces: The Journeys of Black Professionals in Green Careers* contains narrative content describing the challenges and opportunities associated with specific positions, as well as a variety of multi-sector pathways (SFI, 2023). The career map should build on these methods, merging similarly complex narrative content with an intuitive digital interface. At the state level, the Wisconsin DNR's recent recommendation of staff storytelling in recruitment, which it believes to be an effective way of increasing public interest, is further evidence of its increasing importance (WDNR, 2022). Short videos are ideal formats to convey these stories. In addition to their compatibility with social media and online networking channels most popular with younger applicants, videos capture genuine emotions and help form connections with prospective candidates that written testimonials often miss.

*"The agency's Diversity Team has developed a 'staff bio' recruitment tool utilizing volunteers from current diverse DNR staff ... these personal stories can spark the interest of all youth showing them that they can turn their passion into a career with the DNR."*

- Wisconsin DNR (2022), 2022 Equity and Inclusion Plan, p. 12

### 3. Accessibility

*"Utilize a variety of job-posting websites to promote DNR job opportunities, particularly those focused on reaching candidates from diverse groups."*

- Wisconsin DNR (2022), Equity and Inclusion Plan, p. 18

The career map should be presented and managed in a highly accessible digital format. Whatever the quality of its content, any tool's relevance is likely to be highly limited if its information is not easily accessible. In a literature review of minority representation in natural resources careers, accessibility was cited as a major obstacle to recruitment diversity initiatives (Haynes et al., 2015). DOI and state agencies like Wisconsin DNR have stated their intentions to improve accessibility and increase visibility by expanding agency presence on job-posting websites (DOI, 2022; WDNR, 2022).

As a tool meant for as wide an audience as possible, it must be displayed prominently on a dedicated website and easily available with a simple internet search through search engine optimization, ensuring it is accessible to potential users with limited time or career exploration experience. In addition to sharing the tool broadly with career offices and guidance counselors,

conservation employers across government, nonprofit, and for-profit sectors should regularly advertise the tool's existence among established stakeholder networks and explore additional outreach opportunities. To maximize reach within the nation's non-English speaking communities, the career map should also be displayed in Spanish, ensuring its accessibility for Latino users.

## 4. Consumability

*"Ensure job series and position descriptions only address the essential tasks and skills for the position. Review and identify true minimum requirements and qualifications."*

- USFWS (2017), Service-Wide Barrier Analysis Team Report, p. 11

Candidates should be able to easily interpret and make use of the data within career profiles. The ultimate goal of this focus on consumability is not only to make navigation easier for users, but also to avoid discouraging candidates by giving them the impression they are not qualified for highly relevant positions aligned with their skills. Stakeholders across a variety of sectors have expressed interest in increased consumability. The Oregon DFW, for example, has stated its intention to alter the language used in job postings to be non-exclusionary (ODFW, 2020). The USFWS, likewise, seeks to limit descriptions of position requirements, focusing on basic qualifications (USFWS, 2017).

The tool should include design features conducive to quick identification of relevant career profiles. Individual career profiles should feature only strictly relevant data to avoid overwhelming users. Experience and educational requirements, for example, should be simplified as much as possible. Each position description should likewise avoid specificity and sub-categorization in favor of a broad overview. Beyond site design, use of the video medium for interviews, as opposed to blocks of text, should also make career information more easily digestible and facilitate continued engagement.

*"Identify and eliminate exclusionary language from job postings."*

- Oregon DFW (2020), Workplace Inclusion Plan, p. 5

## 5. Career Paths

*“Create deep connections between a younger generation and parks through a series of diverse park experiences.”*

- National Park Service (2015), A Call to Action, p. 9

Prospective candidates must be made aware not only of the duties and requirements of specific positions, but also the interactions between them. In a 2022 survey of outdoor industry employers, 37% identified “lack of clarity of career path or promotional opportunities” as a hiring challenge (CORE, 2022). By highlighting connections via a network of lines linking related careers, the map should accommodate a wide variety of potential pathways of interest to users. It should demonstrate the potential for progression and career growth along paths users may not have considered, encouraging further career exploration.

Here, storytelling should also play a key role. In addition to more conventional single-sector siloed pathways, the inclusion of individual narratives should promote awareness of multi-sector pathways. For example, the story of an individual who entered the conservation career sphere as an NPS ranger, worked as a manager in the outdoors industry, and became executive director of an environmental NGO demonstrates skills transferability and broad growth potential. Black Faces in Green Spaces provides numerous examples of such pathways in the context of forestry, which serve as evidence of the increasingly recognized need for such narratives (SFI, 2023).

## 6. Variation

*“[M]aterials and/or outreach efforts that explain the possible avenues of employment in the agency may help ensure that individuals are aware of jobs and career opportunities beyond the traditional park ranger.”*

- Stanfield McCown (2012), Engaging New and Diverse Audiences in the National Parks: An Exploratory Study of Current Knowledge and Learning Needs, p. 279

The career map must seek to convey the sheer variety of options available to its users, particularly among positions often seen as peripheral to conservation. In doing so, it is intended to prevent self-exclusion among candidates, ensuring qualified individuals remain engaged with the tool even if their interests do not align with “traditional” conservation careers but are nevertheless relevant to conservation. Following interviews with NPS personnel, researchers cited detailed explanations of employment possibilities as a potential solution to the public focus on “ranger-type” careers (Stanfield McCown et al., 2012). The map should highlight possibilities within broad sectors such as federal, state, private, and NGO careers.

Much of the research sourced for this report has focused on resource management agencies at the federal and state levels since these are central to the public's understanding of conservation. Government employment data is readily accessible and because these agencies are some of the largest individual conservation employers, their demographics have been analyzed quite extensively. This report's authors have sought to incorporate data from conservation NGOs and the outdoor industry wherever possible. The tool should not portray public sector careers as the default, but instead ensure that a very wide range of multi-sector possibilities are represented and stakeholders served.

*"Utilize social media to promote the variety of career opportunities available at DNR."*

- Wisconsin DNR (2022), Equity and Inclusion Plan, p. 17

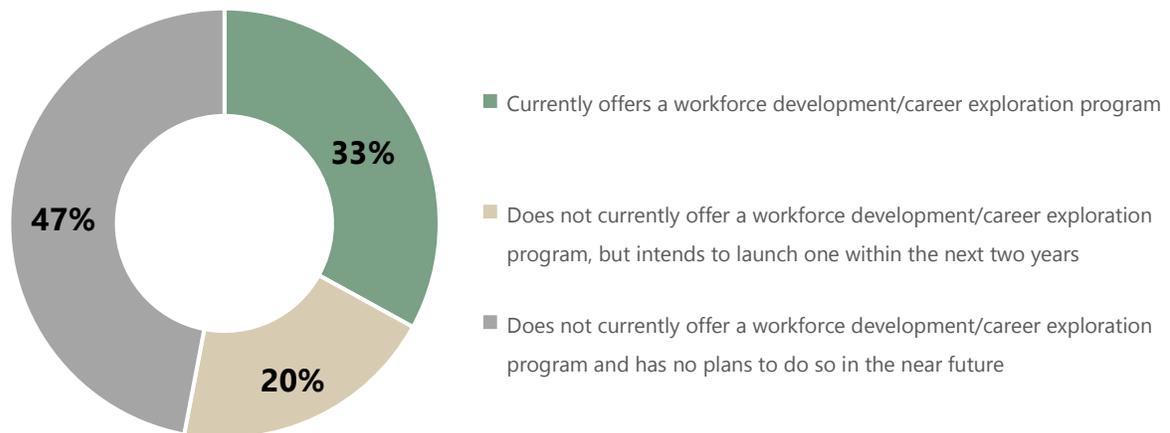
As attested by recent diversification efforts in the outdoors industry and among environmental NGOs, there is a major need for innovative approaches to recruitment even beyond the federal and state spheres. The map is intended to inform users of the diversity of options available within each sector, but not to overwhelm with similar positions. As it is effectively impossible to include every position relevant to conservation, the tool should instead depict as diverse a career profile as possible, appealing to the widest range of potential users curious about conservation.

## 7. Resources

*"Park and recreation leaders note the need for a set of vetted resources... to support training and individual learning (e.g., articles, videos) ..."*

- NRPA (2021), Equity Action Plan, p. 9

The career map should incorporate links to a variety of external resources relevant to each candidate's career search. As Figure 6 depicts, workforce development and career exploration programs are not always available from environmental agencies, making access to related content via recruitment tools all the more important (NRPA, 2022). To go beyond simply setting user expectations of career pathways and employee experiences, multiple calls-to-action are necessary. The map must facilitate further research that builds upon immediately available information by including resources wherever appropriate. For example, a link to the website of the USFWS' Pathways internship program should accompany an interview mentioning participation in that program. This information might also be incorporated into a list of conservation internship programs, each accompanied by a relevant description and link.



**Figure 6** - Prevalence of workforce development programs among environmental agencies. Retrieved from “Equity Action Plan,” 2021, *National Recreation and Park Association*, 6.

Beyond specific programs, the map should leverage the abundance of existing conservation resources such as links to job boards, resume workshops, and the contact information of local mentors, all categorized by career and sector type for ease of use. Applicants should be given the tools they need to take the next step and pursue additional assistance tailored to their career interests. In the majority of existing recruitment diversity plans, there appears to be little focus on connecting candidates with external resources and equipping the job seekers to continue the career search. Understandably, stakeholders in each sector largely do not prioritize connecting potential recruits with career resources associated with other entities or sectors. As a multi-sector tool, however, the career map should incorporate a variety of resources encompassing all sectors.

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Integrating these seven attributes into a collective information forum would amplify the emerging best practices of DEI-focused conservation employers and has significant potential to address key barriers to workforce diversification. The Park Institute of America hopes these recommendations induce quick action to stem the shortage of conservation staffing and underrepresentation in this vital workforce.

# References

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- Allison, M. T., & Hibbler, D. K. (2004). Organizational barriers to inclusion: Perspectives from the Recreation Professional. *Leisure Sciences*, 26(3), 261–280.  
<https://doi.org/10.1080/01490400490461396>
- Appleton, M.R., Courtiol, A., Emerton, L. *et al.* (2022). Protected area personnel and ranger numbers are insufficient to deliver global expectations. *Nat Sustain* 5, 1100–1110.  
<https://doi.org/10.1038/s41893-022-00970-0>
- Center for the Outdoor Recreation Economy. (2022). *Outdoor Industry Workforce Assessment Survey*. Retrieved from <https://outdoorindustry.org/wp-content/uploads/2015/03/2022-CORE-Outdoor-Industry-Employer-Survey-Report.pdf>
- Central Park Conservancy. (2018, January 18). *Before Central Park: The story of seneca village*. Retrieved from <https://www.centralparknyc.org/articles/seneca-village>
- Chattulani, Y. L. (2008). Human Diversity in The Nature Conservancy and Its Implications for Conservation: A First Look (Unpublished master's thesis). Duke University.  
[https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/493/MP\\_ylc3\\_a.pdf;sequence=1](https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/493/MP_ylc3_a.pdf;sequence=1)
- Demkovich, L. (2023, June 1). At state parks, revenue is up and staffing levels are down. *The Spokesman-Review*. Retrieved from <https://www.spokesman.com/stories/2023/jun/01/at-state-parks-revenue-is-up-and-staffing-levels-a/>
- Department of the Interior (2022). *Strategic Plan to Advance Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce*. Retrieved from <https://www.doi.gov/sites/doi.gov/files/doi-deia-strategic-plan-march-2022.pdf>
- Devlin, E. K. (2022). *Segregation in Virginia's National Parks, 1916–1965*. National Park Service. Retrieved from <https://irma.nps.gov/DataStore/DownloadFile/680894>
- Donnelly, L. L. (2016). Expanded Testimony of Lesa L. Donnelly for the Committee on Oversight and Government Reform. Retrieved from <https://oversight.house.gov/wp-content/uploads/2016/12/Donnelly-AGCoalition-Statement-12-1.pdf>
- Doyle, M. (2020, April 6). *Pandemic isn't only challenge facing new FWS chief*. E&E News by POLITICO. Retrieved from <https://www.eenews.net/articles/pandemic-isnt-only-challenge-facing-new-fws-chief/>

- England, D. (2022, June 17). Colorado's outdoor industry knows it could be much more inclusive. Here's how it plans to get everyone outside. *The Colorado Sun*. Retrieved from <https://coloradosun.com/2022/06/17/colorado-outdoor-industry-inclusivity-diversity/>.
- Friends of Gillette Castle State Park. (n.d.). *The state of our State Parks*. Retrieved from <https://www.gillettecastlefriends.org/the-state-of-our-state-parks>
- Haynes, N., Jacobsen, S. K., & Wald, D. M. (2015). A Life-cycle Analysis of Minority Underrepresentation in Natural Resource Fields. *Wildlife Society Bulletin*, 39(2), 228-238. Retrieved from <https://www.jstor.org/stable/wildsocibull2011.39.2.228>
- Hendricks, R. L., & Lewis, J. G. (2006). A brief history of African-Americans and forests. *International Programs*, 25. Retrieved from [https://web.archive.org/web/20090514141304/http://www.fs.fed.us/global/wsnew/fs\\_history/issue25.doc](https://web.archive.org/web/20090514141304/http://www.fs.fed.us/global/wsnew/fs_history/issue25.doc)
- Herbert, S. (2023, April 4). *Forest Service seeks Alaska workers amid national labor shortage*. Alaska Public Media. Retrieved from <https://alaskapublic.org/2023/04/04/forest-service-seeks-alaska-workers-amid-national-labor-shortage/>
- Holl, J. J. (1997, January 2). Black employees allege racial bias at forest service. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/archive/politics/1997/01/02/black-employees-allege-racial-bias-at-forest-service/3c216f98-55fb-4230-8a1f-cf44f55577da/>
- International Union for the Conservation of Nature. (2023, February 3). *"30x30 target" A catalyst for Inclusive Biodiversity Conservation, a flagship initiative by IUCN in the Democratic Republic of Congo*. Retrieved from <https://www.iucn.org/news/202302/30x30-target-catalyst-inclusive-biodiversity-conservation-flagship-initiative-iucn>
- Kahrl, A. W., Cammeron, M., & Katen, B. (2022). *African American Outdoor Recreation*. National Park Service. Retrieved from <https://www.nps.gov/subjects/nationalhistoricalandmarks/loader.cfm?csModule=security/getfile&PageID=7475063>
- Lee, K. J., & Scott, D. (2016). Bourdieu and African Americans' park visitation: The case of cedar hill state park in Texas. *Leisure Sciences*, 38(5), 424-440. <https://doi.org/10.1080/01490400.2015.1127188>
- Lee, K., Fernandez, M., Scott, D. & Floyd, M. (2022). Slow violence in public parks in the U.S.: can we escape our troubling past? *Social & Cultural Geography* 24, 1-18. 10.1080/14649365.2022.2028182.

- Lewis, J. G. (2005). New Faces, Changing Values. In J. G. Lewis (Ed.), *The Forest Service and The Greatest Good: a Centennial History* (pp. 162–185). Forest History Society.
- Mejicano, E.; Dockry, M. J.; Kilgore, M. A. (2022). Workforce Diversity in Federal Natural Resource Organizations. University of Minnesota. Retrieved from <https://hdl.handle.net/11299/226476>
- Mobley, M. S. (2021, July 14). So, you're non-white and you really want to work for the US forest Service? *Mountain Journal*. Retrieved from <https://mountainjournal.org/first-black-woman-forester-shares-concerns-about-working-for-us-forest-service>
- Mock, B. (2016, June 2). For African Americans, park access is about more than just proximity. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2016-06-02/a-legacy-of-racism-in-america-s-parks>
- Moore, A. (2022, February 21). *Historic Discrimination to Blame for Diversity Gap in US Parks, Expert Says*. College of Natural Resources News. Retrieved from <https://cnr.ncsu.edu/news/2022/02/discrimination-to-diversity-gap-in-parks/>
- National Parks Conservation Association. (2022, February 16). *National Parks Continue to Set Visitation Records but Remain Underfunded and Understaffed*. Retrieved from <https://www.npca.org/articles/3070-national-parks-continue-to-set-visitation-records-but-remain-underfunded>
- National Park Service (2001). *Rethinking the National Parks for the 21st Century*. Retrieved from <https://www.nps.gov/subjects/policy/upload/Rethinking-the-National-Parks-for-the-21st-Century-2001.pdf>
- National Park Service (2012). Director's Order #16B: Diversity in the National Park Service. Retrieved from [https://www.nps.gov/policy/DOrders/DO\\_16B.pdf](https://www.nps.gov/policy/DOrders/DO_16B.pdf)
- National Park Service. (2019). *Summary Report: NPS Voices Tour 2018*. Retrieved from <https://www.nps.gov/aboutus/upload/NPS-VOICES-FINAL-REPORT-11-17-19.pdf>
- National Park Service. (2021, May 4). *By the numbers*. Retrieved from <https://www.nps.gov/articles/000/by-the-numbers.htm>
- National Recreation and Park Association (2021). *Equity Action Plan*. Retrieved from <https://www.nrpa.org/contentassets/39a68ad8bfc5433f81c5de414d16cd7c/2021nrpaactionplan-final.pdf>
- Ogrysko, N. (2022, June 13). *For Acadia employees, it's nearly impossible to find an affordable place to live near the Park*. Maine Public. Retrieved from

<https://www.mainepublic.org/business-and-economy/2022-06-10/for-acadia-employees-its-nearly-impossible-to-find-an-affordable-place-to-live-near-the-park>

Oregon Department of Fish and Wildlife (2020). *Workplace Inclusion Plan*. Retrieved from [https://www.dfw.state.or.us/agency/DEI/docs/ODFW\\_Workplace\\_Inclusion\\_Plan\\_2020.pdf](https://www.dfw.state.or.us/agency/DEI/docs/ODFW_Workplace_Inclusion_Plan_2020.pdf)

Pennsylvania Department of Conservation and Natural Resources. (n.d.). *DCNR diversity, equity, and Inclusion Plan*. Retrieved from [http://elibrary.dcnr.pa.gov/GetDocument?docId=2858296&DocName=dcnr\\_20033730.pdf#](http://elibrary.dcnr.pa.gov/GetDocument?docId=2858296&DocName=dcnr_20033730.pdf#)

Public Employees for Environmental Responsibility. (2021). *2021 Bureau of Land Management Employee Survey Report*. Retrieved from [https://peer.org/wp-content/uploads/2021/03/PEER-Report-May-2020\\_DRAFTv5.pdf](https://peer.org/wp-content/uploads/2021/03/PEER-Report-May-2020_DRAFTv5.pdf)

Purdy, J. (2015, August 13). Environmentalism's racist history. *The New Yorker*. Retrieved from <https://www.newyorker.com/news/news-desk/environmentalisms-racist-history>

Repanshek, K. (2019, August 18). *How the National Park Service grappled with segregation during the 20th century*. National Parks Traveler. Retrieved from <https://www.nationalparkstraveler.org/2019/08/how-national-park-service-grappled-segregation-during-20th-century>

Schuett, M. A., & Bowser, G. (2006). Managers' Perceptions of Issues in Serving Racial and Ethnic Minorities in Urban Parks. *Environmental Justice*, 23(4), 40–48. Retrieved from <http://www.georgewright.org/234schuett.pdf>

SNEWS (2019). *Outdoor Salary Survey*. Retrieved from <https://www.outsidebusinessjournal.com/wp-content/uploads/2021/02/snews-outdoor-salary-report-042219.pdf>

Stanfield McCown, R., Tuxill, J. L., Laven, D. N., Mitchell, N. J., Manning, R. E., & Jewiss, J. L. (2011). *Beyond Outreach Handbook: A Guide to Designing Effective Programs to Engage Diverse Communities*. National Park Service. Retrieved from <https://www.nps.gov/orgs/1412/upload/Beyond-Outreach-Handbook-508.pdf>

Stanfield McCown, R., Laven, D., Manning, R., & Mitchell, N. (2012). Engaging New and Diverse Audiences in the National Parks: An Exploratory Study of Current Knowledge and Learning Needs. *The George Wright Forum*, 29(2), 272–284. Retrieved from [http://www.georgewright.org/292stanfield\\_mccown.pdf](http://www.georgewright.org/292stanfield_mccown.pdf)

- Sustainable Forestry Initiative (2023). *Black Faces in Green Spaces: The Journeys of Black Professionals in Green Careers*. Retrieved from [https://www.plt.org/wp-content/uploads/pdf/JourneysBlackProfessionalsGreenCareers\\_Download-1.pdf](https://www.plt.org/wp-content/uploads/pdf/JourneysBlackProfessionalsGreenCareers_Download-1.pdf)
- Taylor, D. E. (2014). *The State of Diversity in Environmental Organizations*. Green 2.0. Retrieved from [https://diversegreen.org/wp-content/uploads/2021/01/FullReport\\_Green2.0\\_FINAL.pdf](https://diversegreen.org/wp-content/uploads/2021/01/FullReport_Green2.0_FINAL.pdf)
- Taylor, D. E. (2015). Gender and racial diversity in environmental organizations: Uneven accomplishments and cause for concern. *Environmental Justice*, 8(5), 165–180. <https://doi.org/10.1089/env.2015.0018>
- Taylor, E. (2023, January 18). *The National Wildlife Refuge Association embarks on campaign to address refuge staffing crisis*. The National Wildlife Refuge Association. Retrieved from <https://www.refugeassociation.org/news/2023/1/18/letter-demonstrates-the-devastating-staffing-shortages-facing-the-national-wildlife-refuge-system>
- Taylor, P. A., Grandjean, B. D., & Anatchkova, B. (2011). National Park Service comprehensive survey of the American public, 2008–2009: National Technical Report. Natural Resource Report NPS/NRPC/SSD/NRR—2011/295. National Park Service, Fort Collins, Colorado.
- Texas Parks and Wildlife Department (2023). *2023-2028 Diversity and Inclusion Strategic Plan*. Retrieved from [https://tpwd.texas.gov/publications/pwdpubs/media/pwd\\_rp\\_eo100\\_1952.pdf](https://tpwd.texas.gov/publications/pwdpubs/media/pwd_rp_eo100_1952.pdf)
- The Nature Conservancy (2022). *Diversity, Equity, Inclusion, and Justice 2021-2022 Annual Report*. Retrieved from [https://www.nature.org/content/dam/tnc/nature/en/documents/TNC\\_2022\\_Annual\\_Impact\\_Report.pdf](https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_2022_Annual_Impact_Report.pdf)
- Thomas, G. (2023, June 18). Tahoe parks facing possible midweek shutdowns amid staffing shortage. *San Francisco Chronicle*. Retrieved from <https://www.sfchronicle.com/tahoe/article/parks-staffing-closures-18150849.php>
- U.S. Fish and Wildlife Service (2017). *Service-wide Barrier Analysis Team Report*. Retrieved from <https://www.fws.gov/sites/default/files/documents/Barrier%20Analysis%20Team%20Report%20FY%202017.pdf>
- U.S. Forest Service (2022). *Forest Service Equity Action Plan*. Retrieved from <https://www.fs.usda.gov/sites/default/files/Forest-Service-Equity-Action-Plan.pdf>
- Vespa, J., Medina, L., & Armstrong, D. M. (2018). *Demographic Turning Points for the United States: Population Projections for 2020 to 2060*. U.S. Census Bureau. Retrieved from

<https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf>

Weber, J., & Sultana, S. (2013). The Civil Rights Movement and the future of the national park system in a racially diverse America. *Tourism Geographies*, 15(3), 444–469.

<https://doi.org/10.1080/14616688.2012.675515>

Westphal, L. M., Dockry, M. J., Kenefic, L. S., Sachdeva, S. S., Rhodeland, A., Locke, D. H., Kern, C. C., Huber-Stearns, H. R., & Coughlan, M. R. (2022). USDA Forest Service employee diversity during a period of workforce contraction. *Journal of Forestry*, 120(4), 434–452.

<https://doi.org/10.1093/jofore/fvab071>

Wisconsin Department of Natural Resources. (2022, October 1). Equity and Inclusion Plan. Retrieved from

[https://dnr.wisconsin.gov/sites/default/files/topic/Employment/DNR\\_Equity\\_and\\_Inclusion\\_Plan\\_Oct.2022\\_Update\\_FINAL.pdf](https://dnr.wisconsin.gov/sites/default/files/topic/Employment/DNR_Equity_and_Inclusion_Plan_Oct.2022_Update_FINAL.pdf)

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## About the Institute

The Park Institute of America is a non-profit, non-partisan organization that connects communities, organizations, researchers, and park leaders so that parks can provide the most value to people and the planet. By leveraging our network of park practitioners, conservation scholars, and cross-sector stakeholders, we show how every community benefits when parks are supported. We show *why parks matter*.

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