



WASHINGTON STATE DEPT OF
**NATURAL
RESOURCES**

Engaging Youth on Public Lands through Expanded Learning

Recommendations on Program Design and Partnership

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I. **Executive Summary:**

The Washington State Department of Natural Resources (DNR) is a public agency that manages forests, agriculture lands, aquatic lands, and conservation areas for trust beneficiaries and for the benefit of all people in Washington. The agency is committed to growing the next generation of natural resource professionals.

When considering who that next generation of natural resource professionals is, the question arises, “How can Washington DNR help provide career-connected, outdoor learning opportunities to all communities in Washington, prioritizing girls, low-income youth, and youth of color?”

This report highlights ideas and actions the DNR can take to proceed with planning and implementing meaningful education programs in partnership with organizations that support Expanded Learning Opportunities (ELOs)—programs that build skills through hands-on, experiential learning, and expand upon, but do not replicate, traditional learning that happens during the school day—across the state (Expanded Learning Opportunities Guide, 2018).

Informed by research, conversations with individuals and groups, representation from local and regional organizations, and philanthropic thought partners, this report shares promising practices in broadening access to outdoor education and natural resource stewardship to all communities.

Through the course of this work, several key themes and ideas rose to the surface for DNR to consider in this work:

- Convene an advisory council that reflects environmental justice principles and represents diverse voices in order to establish goals, strategies, and priorities for an education program.
- Identify meaningful activities and programming for community partners based on the needs and barriers as articulated by those partners.
- Seek to better understand the barriers that underserved communities face when looking for outdoor education opportunities, and actively work to lower those barriers and reach more youth and young people where they learn.
- Utilize frameworks that have been developed by experts in the field locally and nationally to follow best practices in planning and implementing education and career-connected learning programs that are culturally responsive and center community resilience and equity.

DNR’s mission is “Manage, sustain, and protect the health and productivity of Washington’s lands and waters to meet the needs of present and future generations.” An education program that focuses on hands-on, experiential learning will further support DNR’s mission. An outdoor education program is a critical strategy to engage the population in this goal. In a March 2021 listening session titled, “How Can CTE [Career and Technical Education] and Out-of-School Programs Address Climate Change?” from The Aspen Institute’s K12 Climate Action, Herb Lee, from Pacific American Foundation, A Native

Hawaiʻian organization, shared his organization's goals to move young people from Aloha ʻĀina, “loving the land,” to Mālama ʻĀina “feeling responsible for the land.” A similar framework for connecting young people to outdoor education, and generating interest in careers in natural resource management, will be a valuable resource to support DNR in meeting its mission.

This report presents key lessons and recommendations DNR may consider in the establishment of an outdoor education program, based on input from practitioners and potential partners. Focus groups conducted with youth service providers revealed a varied perspective on how outdoor education and career connected learning might look, but most agreed that it requires a hands-on, or “experiential” component. Youth surveys provided valuable recommendations; in a youth survey, when asked what types of outdoor education activities are most compelling, the topics that garnered the most interest were participating in hands-on outdoor activities facilitated by an educator, and going on recreation-based outdoor trips, such as a backpacking or hiking trip. Youth and educators also shared perspectives on barriers to participation, including transportation, parental support or permission, cost, and access to the necessary gear.

Washington DNR plans to use the recommendations from this project and aligned agency resources and strategic priorities to establish an education program that convenes an advisory council to identify learning outcomes, form partnerships with educators, and help young people learn about natural systems and outdoor careers in real-world outdoor classrooms. Establishing an outdoor education program is valuable for numerous reasons including:

- Supporting educational outcomes for young people;
- Building environmental literacy in Washington;
- Supporting health and well-being outcomes for young people through promoting and enhancing familiarity with outdoor experiences;
- Enhancing understanding of natural resource stewardship supportive of environmental protection and restoration outcomes;
- Addressing systemic inequities faced by young people in our communities by providing expanded learning opportunities; and
- Inspiring the next generation of natural resource workers, including enhancing diversity, equity, and inclusion in this sector.

Holding in mind the areas of interest and potential barriers that came from provider focus groups and youth surveys, along with the historical and current sociopolitical factors that have limited access to the outdoors for many members of our communities, it is critical to maintain an environmental justice lens throughout this work. Equity and environmental justice are major priorities for DNR, and as such, a goal of this report is to provide resources for DNR to move an education program forward with recommendations for fostering and engaging in meaningful and authentic relationships with youth-serving partners while centering environmental justice.

This report aims to steward DNR through initial planning and development steps to establish an education program. While the focus of this report is expanded learning (programming offered through afterschool programs, summer programs, and other times outside of traditional K-12 school-based learning). As specified in the 2018 Expanded Learning Opportunities Guide produced by the Expanded Learning Opportunities Council as a toolkit for school districts in Washington, “Key to any high-quality expanded learning opportunity is developing relationships, and providing experiences that directly link to what students are learning in the classroom and offer opportunities to explore career pathways. Opening the doors to potential job opportunities is key for youth of all ages, and particularly for middle and high school youth that are preparing for their future” (p. 3). As such, many of the same strategic priorities, programmatic frameworks, and equity guidance presented in this report will be valuable in developing K-12 school partnerships as well.

II. Context:

Managing over 5.6 million acres of land across the state including forests, farmlands, aquatic lands, and conservation areas, and employing more than 1,400 people spread across the state—people who are experts in forestry, aquaculture, ecology, geology, habitat restoration, natural heritage, wildfire, trail design, and archaeology—Washington DNR is in a perfect position to invite kids and youth outside into real-world outdoor classrooms to learn about Washington’s natural resources and how everyone in Washington has a role to play in building a sustainable future. This is an exciting time for the agency as a new agency-wide recreation plan is now in progress, and staff are eager to build and implement an education program that can support the goals of that plan as well as the agency’s other strategic objectives.

In 2019-2020, Front and Centered, the largest coalition of communities of color-led groups in the Pacific Northwest worked with an Environmental Justice Task Force appointed by Governor Inslee (which included Commissioner of Public Lands, Hilary Franz) to hold a number of community conversations and offer recommendations. Those conversations ultimately led to the passing of State Bill 5141, known as the Healthy Environment for All (HEAL) Act, which Gov. Inslee signed into law in May 2021 (Front and Centered: Community Report on Environmental Justice, 2021, p. 21).

Front and Centered has provided valuable insights on educational justice that can inform DNR’s efforts. Prior to the passing of the HEAL Act, Front and Centered published a Community Report on Educational Justice sharing recommendations based on themes that emerged from the work of the Environmental Justice Task Force. One key theme focused on community engagement: “There is significant room for improvement in government accountability and the practices by which state agencies engage underserved communities. State agencies must take proactive steps to establish a meaningful relationship with underserved communities to facilitate their participation in public processes...The value of improved engagement was seen as greater transparency and public

confidence in agency work that would increase levels of public involvement in agency decisions” (pp. 7-8).

DNR is committed to developing an education program that is centered around equity and helps to advance recommendations from the EJ Task Force, Educational Justice Community Report, and related guidance documents, and which proactively establishes meaningful relationships with underserved communities. DNR has partnered with School’s Out Washington to develop programmatic recommendations to do so. School’s Out Washington (SOWA) is a statewide intermediary organization whose work is underpinned by a commitment to racial equity and diversity. Recognizing and honoring the needs of the communities being served, a team of colleagues from DNR and SOWA met for several months to plan, discuss, and research the question of how to build a sustainable education program at DNR. This report is a result of that collaboration.

This report was made possible by funding from STEM Next and the Million Girls Moonshot Project (<https://milliongirlsmoonshot.org/>). The Million Girls Moonshot is a five year initiative of the STEM Next Opportunity Fund. The Moonshot is an ambitious, broad-based effort to engage more girls in STEM learning and inspire and prepare them to find the solutions to tomorrow’s societal needs. The Moonshot is active in out-of-school programs in all 50 states, leveraging the Mott-funded 50 State Afterschool Network, which has access to more than 10 million youth and 100,000 afterschool programs across the country.

With this support SOWA has created an [online resource portal for STEM professional development, activities, and career connected learning resources](#). SOWA has also built out three professional development trainings with instruction on STEM identity, culturally responsive STEM programming, and aligning STEM interests with STEM career pathways. Million Girls Moonshot supports SOWA to continue building partnerships with entities, such as the Department of Natural Resources, who are committed to supporting STEM education for girls and other priority groups.

In the process of developing this report, DNR and SOWA collaborated on the following:

- Convened focus groups with expanded learning providers;
- Attended listening sessions reflecting national voices and trends in sustainability education, climate change, and career development;
- Surveyed youth; and
- Interviewed individuals working in research, outdoor education, and philanthropy who provided consultation on best practices looking towards the future of outdoor education, and career-connected-learning for sustainable jobs in natural resource management.

While this report includes stakeholder insight as well as research from the field, it is recommended that as DNR engages in the development of an education program, the agency convenes an advisory council that includes diverse stakeholders in expanded learning, outdoor education, and career-

connected learning. Additionally, centering youth voice early in the process of program design and often throughout the development of programming and curriculum will be critical to the success of an educational program.

A. Connecting to DNR Strategic Priorities

The development and adoption of an education program at DNR is well-aligned with a number of statutory requirements and agency priorities, which provide opportunities to advance this work in ways that achieve multiple benefits. Some of the areas with greatest opportunity for alignment include:

[Implementation of the HEAL Act](#)

As described above, the HEAL Act, State Senate Bill 5141, requires DNR to advance environmental justice in how agency work is implemented. This includes developing a community engagement plan and ensuring meaningful community engagement occurs throughout DNR's work. DNR can advance this through applying meaningful community engagement practices in the development of an education program to ensure youth of color, girls, and non-binary youth are benefited by this program. In addition, an education program implemented with an equity lens can and should inspire enhanced diversity and support equity and inclusion in DNR's workforce, which will enhance the agency's ability to address environmental justice in meaningful ways and connect with communities across the state.

[Long-term Forest Health and Wildfire: House Bill 1168](#)

[House Bill 1168](#) was a significant piece of legislation that passed during the 2021 Legislative session in Washington State. Among other things, the bill asserted that forest health and wildfire risk reduction can be addressed more quickly if the state invests in education and workforce programs related to the forest sector. Section 5 of the bill requires DNR to develop new programs and invest in initiatives that support the forest sector workforce and education programs. Funding from this bill can be a starting point to help support outdoor education initiatives. That legislation is focused on the forest sector specifically, and long-term, DNR envisions a broader range of outdoor education and training opportunities.

[Watershed Resilience Action Plan](#)

DNR completed the [Watershed Resilience Action Plan](#), which will focus on actions the agency can lead or advance in partnership that support salmon recovery in this priority watershed. One of the actions included in the plan is to "Increase Environmental Literacy and Engagement to Support Salmon-Friendly Ecosystems." As part of DNR's budget requests for the near future, DNR will seek funding for a School Stipend to begin to advance the partnerships required to achieve this outcome over the next 10 years both in-school and through expanded learning opportunities. An additional outcome of this

plan is to provide outdoor education and career-connected learning opportunities that reach at least 6,000 K-8 and high school students, with a focus on girls and youth of color, by 2031. There are significant ways to leverage this action plan and the focused attention DNR will bring to the Snohomish watershed to initiate education programming that helps advance the salmon recovery goals outlined in this plan while creating new partnerships and learning about different ways to engage in education across a broad landscape, from studying underwater vegetation in the Snohomish River Estuary, to learning about the ecosystem benefits of riparian zones.

These policies and strategic priorities offer valuable initial fiscal support of education programming that will be critical for this work and developing demonstration projects. Additionally, there is a need to look beyond the 5- and 10-year horizon to sustainable education programs that continue engaging young people and supporting the development of career pathways in all aspects of the natural resource management industry into the future.

DNR envisions an education and training program that supports other agency priorities including environmental justice, forest health and wildfire resilience, mitigation of the effects of climate change, expansion of the clean energy sector, salmon habitat recovery, community and economic development, agency transparency, community resilience, and a more diverse workforce.

The HEAL Act (2021) established a statewide definition of environmental justice as, "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities, the equitable distribution of resources and benefits, and eliminating harm."

The National Oceanic and Atmospheric Administration (NOAA)'s [Community Resilience Education Theory of Change](#) (2020) provides a definition of resilience as, "a capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and the environment." NOAA goes on to address the limitation of this definition of resilience as limited to "a concept of 'bouncing back' to a previous state that may be fundamentally unstable and unjust..." and suggests that an end goal "encompasses 'bouncing forward', that is, transforming to a more equitable and sustainable future state" (p. 22).

DNR has recently completed a Diversity, Equity, and Inclusion, and Environmental Justice organizational assessment. Lessons from that work, paired with the resources provided by HB 1168, SB 5141, and the Watershed Resilience Action Plan, will allow DNR to develop meaningful education programming and strengthen partnerships that will create meaningful long-term positive impacts on communities across Washington state.

III. Outdoor Education in Washington State: Barriers and Opportunities

Washington state has a wealth of natural resources and organizations engaging in outdoor education. From school-based overnight trips for upper elementary and middle school students (such as those to Islandwood, Camp Waskowitz, Camp Seymour, Camp Sealath, etc.) to Maritime High Schools, school districts across the state access and support learning around natural resources and environmental literacy. Many expanded learning providers also engage in outdoor education, and would benefit from additional access to public lands, opportunities to learn from subject matter experts, and access to apprenticeships or career development to support growth goals for the young people they serve.

Alongside the opportunities, significant barriers exist to engaging in outdoor education for communities of color. While many circumstantial barriers were named in focus groups and the youth survey (transportation, having the correct gear, parental permission, knowing about the programs, prohibitive application systems or participation fees) those cannot be addressed without a clear awareness of the systemic barriers that are experienced by communities of color. Examples of systemic barriers are articulated in a recent article from the South Seattle Emerald (August 2021), *Why Don't We See More People of Color on the Trails of Washington State?* include understanding the different permits and passes required for natural areas, access to transportation, materials in multiple languages, legal and physical safety, and the ongoing legacies of colonization and Jim Crow. As the article states, it is burdensome that BIPOC [Black, Indigenous and People of Color] people must seek and find this intrinsic value first and then struggle to have access to the same outdoor activities as predominantly white Washingtonians. Also, it is essential to note that each race experiences different challenges in accessing and connecting to the outdoors.”

Environmental conservation itself has a troubling history. Research partner Alex Hooker, who has worked extensively in outdoor education, expanded learning, and philanthropy and program development focused on those areas, warns against engaging in “Teddy Roosevelt era environmental conservation” with young people. An article in *The New Yorker* (August 2015), *Environmentalism's Racist History*, further underscores Hooker’s statement, as it describes how those who worked alongside Teddy Roosevelt “did much to create the country’s national parks, forests, game refuges, and other public lands—the system of environmental stewardship and public access,” were also engaged in racist activism. The trends and biases that were baked into historical environmental policies carried through to future decades. “Major environmental statutes, such as the Clean Air Act and the Clean Water Act, were written with no attention to the unequal vulnerability of poor and minority groups.” A 2014 study found that white people occupied 89 percent of leadership positions in environmental organizations.

The HEAL Act's focus on Environmental Justice is a step towards moving away from such troubling history. Additional recommendations for reducing barriers from Front and Center's Environmental Justice Task Force Report (2021) that are seen reflected in DNR's staff intentions and in focus group conversations include this guidance about outreach and education:

- Diversify the staff at state agencies by hiring from frontline communities
 - Utilize high volume public venues to provide environmental educational materials.
 - Specifically recommend places where people gather within a community such as churches, libraries, public schools, community centers, and healthcare facilities
 - Identify and engage trusted community groups to disseminate information and provide funding to conduct this outreach
 - Communicate via the radio and media outlets, and ensure communication is in languages spoken by diverse public audiences such as Spanish, Mandarin, and Vietnamese.
- (p. 9)

DNR can support these opportunities, and address the barriers, by providing the following:

- Lands - the actual space to serve as outdoor classrooms
- Expertise - staff with great experience in different scientific and technical fields
- Commissioner's voice - attention and focus coming from aspects of these programs that Commissioner Franz attends or promotes.
- Potential employment opportunity - DNR employs more than 1,400 permanent staff across the state and a large seasonal firefighting force; these can be entry points for careers in natural resource management.

DNR is interested in better understanding the barriers that underserved communities face when looking for outdoor education opportunities. In order to lower those barriers and reach more youth and young people where they learn, the agency will seek out partnerships with education providers to enhance learning through the participation of subject matter experts, job coaching, guided nature walks, data gathering, or other site-specific collaborative outdoor learning programs. The agency also envisions a proactive approach to identifying and communicating with partners. Many education and expanded learning providers may not have the time and resources to seek out state agency support, so DNR will develop an outreach strategy that seeks to spread awareness about the range of learning opportunities on public lands.

IV. Recommendations and Frameworks for developing an education program:

As DNR establishes an education program, there are short and long-term considerations. Once dedicated education staff is secured, the recommendation is for the initial focus to be on fostering and stewarding partnerships, and developing strong equity-driven programming through:

- The development of an advisory council;
- Development and strengthening of relationships with organizations already doing strong, equity-driven, youth-centered expanded learning work in communities near public lands; and
- Utilization of the provided frameworks for program development that are aligned with best practices, including resources from STEM Next, NOAA, K12 Climate Action, and Washington STEM, and School's Out Washington.

The frameworks that follow offer guidance on program development that align with DNR's goals in a) cultural responsiveness; b) community resilience; c) key questions to get started, d) career-connected learning; and e) expanded learning planning and racial equity tools.

For programs to be meaningful, sustainable, and equitable, this thoughtful work must happen at the early stages and follow a cycle of continual improvement that includes community-engaged assessment, planning, and implementation.

A. Cultural Responsiveness

[STEM Next's equity and inclusion framework](#) provides important considerations for developing equitable and inclusive stem education. One element that is critical to focus on in developing educational programming in and out of school is cultural responsiveness. Professor Emeritus, Geneva Gay, from University of Washington, specifies that culturally responsive teaching strategies use “cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students” and in doing so, this makes “learning encounters more relevant and effective for them” (2010). STEM Next's framework specifies cultural responsiveness is integrated into every aspect of the framework as part of equitable and inclusive STEM education, and asserts that cultural responsiveness must be included at the organizational, personal, and instructional levels of a program.

B. Community Resilience

Another resource to look to when developing a framework for educational programming is [NOAA's Office of Education Environmental Literacy Program Community Resilience Education Theory of Change](#) (2020) which describes community resilience education as:

Educational approaches that develop community level environmental literacy to understand threats and implement solutions that build resilience to extreme weather, climate change, and other environmental hazards. Environmental literacy here includes the knowledge, skills, and confidence to: (1) understand the ways that human and natural systems interact globally and locally, including the acknowledgement of disproportionately distributed vulnerabilities; (2) participate in civic processes; and (3) incorporate scientific information, cultural knowledge, and diverse community values when taking action to anticipate, prepare for, respond to, and recover from environmental hazards, including mitigating and adapting to climate change (p. 6).

C. Key Questions to Get Started:

The recently published [Local K-12 Climate Action Plan](#) from Aspen Institute’s K12 Climate Action (2021) provides a series of excellent “key questions” to ask when developing a program. Because DNR’s education programs will be focused on expanded learning, while reviewing the questions one may exchange the word “district” with “DNR.” The key questions include topics and resources on mitigation, adaptation and resilience, and - most relevant to this report - Education (including existing curricula, professional development, career and technical education, out-of-school-education, and indigenous knowledge); and Equity (community inclusion, and prioritizing equity) (pp. 1-5).

With these guiding documents, and a close investigation of what national organizations are doing to support career-connected outdoor education, as well as the strengths and values brought by local partnerships, the educational program will have a strong foundation that - if aligned with best practices in career-connect learning - will be effective, meaningful, and sustainable.

D. Career Connected Learning: Best Practices, Implications, and Planning

Career connected and work-integrated learning related to STEM careers, climate justice, and environmental stewardship is happening throughout the country and is recognized as a key to helping students and schools recover from the pandemic. Developing a program like the one DNR is working towards is relevant and timely. Many young people are talking about the environment and taking action as part of climate strikes or advocacy efforts, and they want to be involved in making a difference and engaging in this work.

See Appendix A for several examples of programs engaging in such work. The March 2021 [K12 Climate Action Listening Session on how Career and Technical Education](#) (CTE) and out-of-school programs can address climate change focused on how out-of-school and Career and Technical Education programs are uniquely positioned to engage youth in learning about sustainability and green careers.

Panelists shared their experience developing and implementing programs and offered resources on best practices.

Many panelists and experts in the field agree that career-connected learning must include opportunities for learners to address authentic questions. It is also important that jobs young people are introduced to have pathways to possible careers. For example, there are programs that support workforce development for young adults through trail restoration in parks and natural areas. However, the existence of those jobs does not necessarily create a pathway to a career.

Washington STEM has developed a set of [Criteria for High-Quality Career-Connected Learning](#) (2018) available on their website. The “Criteria are based on research and field-tested among emerging and existing programs in Washington” (p. 1). The criteria elements include:

- Equity
- Person-Centered Approach
- Business/Industry and Community-Based Organization (CBO) Connections
- Partnership Agreement
- Assessment of Effectiveness and Recognition of Skills
- Part of a Continuum, Not a Standalone Effort
- Design Fidelity
- Sustainability and Implementation at Scale

Each criteria listed above has a list of indicators, a rating scale, and a list of examples (pp. 1-7). This will be a valuable tool as DNR’s work in the area of career-connected learning develops.

Another resource to look at for career connected learning program design is the model shared from P-TECH High School in the K12 Climate Action listening session (2021), which includes a rubric for the work with three categories, 1) Program Design (environmental literacy and technical training), 2) Labor Market Intelligence (knowing and understanding the conditions of the labor market) and 3) Being First in Line for Jobs. This model specifies the importance of partnerships between school districts, industry partners, and colleges, and the value of having a strong understanding of the job market both presently and in the future. DNR’s relationships with School’s Out Washington, as well as with colleges, OSPI, and other state and private agencies will serve it well in this area.

E. Expanded Learning Planning and Racial Equity Tools

There are numerous exciting possibilities for developing meaningful long-term partners in this work, which will result in positive impact for DNR. Potential positive impacts include increased and improved stewardship of public lands, health benefits for young people, and increased academic

engagement for young people involved in DNR’s education program. Expanded learning, in particular, presents an opportunity to complement learning happening during the school day, through hands-on, experiential activities. When expanded learning opportunities are provided equitably, it is a critical tool for closing the opportunity gap in Washington. They can “...increase student engagement, broaden student perspectives, spark curiosity, and boost academic performance in school” (Expanded Learning Opportunities Guide, 2018, p. 8).

[The Expanded Learning Opportunities Guide](#) (2018) is a toolkit for school districts in Washington developed by the The Expanded Learning Opportunities Council (ELOC), which was established in 2014 under Second Substitute Senate Bill 6163. This toolkit provides a planning template that includes details about initial discussion prompts, objectives, forming community partnerships, and monitoring and assessing opportunities (pp. 25-26). Additionally, the toolkit provides a Racial Equity Tool, with the purpose of gaining, “a deeper understanding of how policies, programs, or practices of an organization will or will not advance racial equity for expanded learning opportunities serving K-12 students in Washington” (p. 29).

Additional recommendations for seeking and establishing long-term, sustainable partnerships include:

- Aligning to best practices in the Washington State Afterschool and Youth Development Quality Standards including centering cultural responsiveness and youth voice in program design and improvement.
- Providing training for facilitators and educators.
- Engaging family members, parents, and guardians of young people who are involved in programs.
- Engaging in ongoing evaluation that prioritizes storytelling and includes assessment of the impact on both youth and facilitators and educators.
- Mutual sharing of resources and a formally agreed upon mutual willingness to do what is needed to make the partnership work.

While this report focuses on expanded learning that generally occurs outside of the school day, K-12 school partnerships will also be part of DNR’s programming, and effective expanded learning programs connect to school-day learning as well. It is recommended that DNR also look into resources that support in-school K-12 learning, including:

- Next Generation Science Standards (NGSS)
- Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards
- Washington Career and Technical Education 21st Century Leadership Skills
- Additional resources available from partnering school districts and Educational Service Districts

V. Program Evaluation and Assessment

As DNR intends to start with demonstration projects, supported by HB1168 and the Watershed Resilience Action Plan, before scaling up to state-wide long-term planning and partnership, it will be critical to incorporate program evaluation and assessment into the program design and budget.

Recommendations for program evaluation include:

- Centering youth voice
- Working with organizations centered in communities of color such as tribal communities that overlap with public lands
- Include perspectives of service providers
- Utilizing storytelling as a central evaluation and dissemination tool to reach new audiences and move programming from smaller scale demonstration programs to statewide implementation.

A resource that may be valuable to explore in terms of evaluation is ClimeTime, a collaboration facilitated by the Office of the Superintendent of Public Instruction in partnership with the UW Institute for Science and Math. Some examples from ClimeTime that demonstrate partnerships like those DNR is striving to foster, as well as the centering of youth voice, and utilizing storytelling are the “Project Portraits” produced by ClimeTime. One specific example in which Braided Education Consulting partnered with schools serving students from the Confederated Colville Tribes to co-design a [climate science curriculum](#) provides such an example.

VI. Potential Programmatic Partnerships:

Washington DNR has a number of current active partnerships ranging from short-term engagements to longer-term partnerships with representatives on the Board of Natural Resources. Partners include state universities and community colleges; local school districts; and expanded learning providers and outdoor learning nonprofits organizations. Additionally, there are a number of local, regional, and national entities that have expressed interest in future partnerships. As such, once an advisory council is developed, it would be valuable to include representatives from current and potential partners that share DNR’s articulated values of environmental justice and equity.

In addition to the framework provided above, there are resources to look at specifically for assessing and developing partnerships that center equity and inclusion in expanded learning and career-connected learning. These include:

[Quality Standards for Afterschool and Youth Development Programs](#) (2014), produced by Schools Out Washington and developed with a range of providers, which were “created to support Washington State programs in achieving positive youth outcomes by providing staff with guidelines for what quality looks like in a program setting” (p. 6). These standards provide a set of benchmarks that can

be used by any program that serves youth people in Washington to develop and assess goals and standards.

Another resource to look to is the [Equity and Inclusion Framework](#) (2020) Created for STEM Next Opportunity Fund by the National Girls Collaborative Project, which focuses on three categories: Broadening Participation, Youth-Centric, and Skill Development

Additionally, young people who were surveyed and ELO service providers named apprenticeship opportunities as a valuable partnership model, so organizations that have experience with apprenticeships and career-connected learning would also be valuable partners. These include [Career Connect Washington](#) and [Washington STEM](#), a lead partner in the Career Connect Washington initiative.

When considering organizations to partner with, DNR will have many valuable opportunities for partnerships, across a range of sectors, both among those who already have partnerships with DNR, and those who may be new potential partners. Some areas of partnership to consider include:

- Nonprofit partners working in expanded learning such as the Boys & Girls Clubs; Schools Out Washington; YMCA; and many small and culturally-based child and youth serving providers;
- Organizations engaging in outdoor education and environmental stewardship across the state such as Pacific Education Institute, and Glacier Peak Institute;
- Organizations engaging nationally in outdoor education and environmental stewardship, such as NOAA Office of Education, US Forest Service, and US Fish and Wildlife Service;
- Higher Education, such UW, WSU, and Green River Community College, each with a representative that sits on the Board of Natural Resources, and Ocean Resource College Academy (ORCA) School at Everett Community College;
- State governmental agencies including the Governor's Office, Office of the Superintendent of Public Instruction; Department of Commerce, Employment Security Department, Washington State Parks;
- Local school districts and Educational Service Districts;
- Cross-sector partnerships like Career Connect Washington, and ClimeTime; and
- Tribal entities and individual tribal educators and scientists who are stewarding environmental education work in their own local communities, such as Young Warrior Society, Snoqualmie Ancestral Lands Movement, SHAWL, and Braided Consulting.

The list above includes examples of partnership possibilities and does not reflect a complete list of possible partners for DNR. However, by using the frameworks provided in this report to identify and develop partnerships, and allocating agency resources aligned with environmental justice principles, DNR can utilize resources to have a meaningful impact on communities across the state.

VII. Budget Recommendations

There are many budget considerations when it comes to beginning a new program, particularly a program that may begin with demonstration projects supported by specific funding sources, with the intention to scale up to a larger program in the future. While initial budgets will need to prioritize staff to develop a strategic plan, convene an advisory council, and foster and maintain relationships with partners and to steward relationships between new partners and DNR staff and public lands, the budget also must include funding for evaluation, which encompasses both formative and summative evaluation, engagement with youth and service providers, as well as dissemination of evaluations, which is an important component of reaching diverse audiences and making piloted demonstration programs scalable.

Barriers that were named by service providers and youth included transportation, proper gear, and concerns about fees to participate, which should be addressed in programming budgets. Many of the most effective career-connected learning models -- aligning with recommendations and interest from focus group participants and youth surveyed -- are programs that have a paid apprenticeship component. Considering stipends or compensation for youth apprentices, as well as training and possibly an additional stipend for mentors to those apprentices would be valuable to include in the budget as well.

While initial funding for education programming is named in HB1168 and the Watershed Resilience Action Plan, long-term sustainable funding sources will be critical to this work having a statewide impact that centers youth and their interests and experiences, as well as diverse community partners who rely on sustainable long-term partnerships.

VIII. Next Steps

In order for DNR to move an education program forward, there are some necessary short-term goals for 2022-2023:

- Allocate specific funding for staffing of a DNR education program.
- Allocate funding to support training of DNR staff who may engage with young people, program evaluation, transportation for staff and youth, as well as meals for youth and other resources to reduce barriers to youth participation in outdoor education programs.
- Once funding is secured, hire staff to facilitate this work, including:
 - Convening an advisory council that reflects environmental justice principles and represents diverse voices - stakeholders and interested partners, including tribal representation and youth representation.
 - In collaboration with the advisory council - and utilizing resources provided in this report - establishing goals, strategies, and priorities.

- Gaining a better understanding of existing programs at DNR that would benefit from education-related support.
- Identifying needs and barriers and working with advisory council to remove barriers (i.e., logistical, resources, stigma, communication, staffing).
- Establishing and maintaining relationships with current and potential partner organizations.
- Concurrently, support development of curriculum and lesson plans aligned with Next Generation Science Standards (NGSS) with support from youth-serving partners and subject-matter experts at DNR.
- Prioritize agency alignment and leadership in articulation of how DNR balances educational outcomes and other agency core work.
- Partner with education providers and youth to develop and provide training for DNR staff on best practices in working with young people.
- Identify priority school districts to support environmental justice initiatives across the agency.
- Begin demonstration programs supported by HB 1168 and the Watershed Resilience Action Plan.
- Begin coordinating field trips and site-visits (i.e., for a subject expert to speak with a group of students). Some of these things are happening in a one-off or ad-hoc fashion, but there is a need for tracking, evaluation, and continual improvement as well as additional outreach and relationship-building to support this work.

Medium-term goals (over the next 2-5 years 2023-2025) include:

- Secure additional consistent funding to scale up from demonstration programs to state-wide regional programs.
- Execute regular state-wide educational projects in each of DNR's six regions.
- Develop tools for teachers, expanded learning providers, and students (i.e., relevant educational materials like maps, curriculum, and other resources for educators hosted on a DNR webpage).
- Build out the career-connected learning component of education programs. Steps include:
 - Identify and participate in career fairs across the state;
 - Solidify partnership with Career Connect Washington, as well as Community College programs with AA degrees in relevant subjects, such as forestry;
 - Begin engaging in partnership with Department of Commerce regarding career-connected learning;
 - Identify at DNR possible entry level, non-degree required positions, that provide opportunity for growth and career development/advancement;
 - Partner with the Department of Commerce and industry partners in the development of a career and technical skill credentialing program;
 - Work towards developing an apprenticeship program; and/or

- Establish ongoing staff training at DNR on how to engage with young people, current methods in education and effective engagement with diverse audiences.

Long-term goals (over the next 5-10 years, 2026-2031) include:

- Establish a train-the-trainer model to educate others on utilizing DNR's education resources, which will develop regional expertise across the state and ensure that education programs are sustainable and materials are utilized.
- Identify and enhance equitable career pathways within the agency.
- Leverage the agency's career-connected learning programs into a more diverse candidate pool and workforce at DNR.
- Develop an apparatus to manage grant processes to secure funding, including staff and systems for applications, management, reporting and implementation of grant-funded initiatives.
- Follow the Watershed Resilience Action Plan's goal to provide outdoor education and career-connected learning opportunities that reach at least 6,000 K-8 and high school students, with a focus on girls and youth of color, by 2031.
- Continue ongoing staff training to follow best practices in engaging with young people, current methods in education and effective engagement with diverse audiences.

IX. Conclusion

This report begins to answer the question, "How can Washington DNR help provide career-connected, outdoor learning opportunities to all communities in Washington, including girls, low-income youth, and youth of color?" DNR has a unique opportunity to connect the development of an education program to HB 1168 and the Watershed Resilience Action Plan, while also maintaining a focus on the environmental justice underpinnings of the HEAL act throughout this work.

By providing initial perspectives, frameworks, and resources in this report for developing an education program that is relevant and meaningful, DNR has the foundational resources to develop a sustainable education program that can have a positive impact on communities across the state, and contribute to diversifying the future workforce of natural resource management.

Through research and conversations about best practices locally and nationally DNR now has key short-term, medium-term, and long term steps to take towards establishing an education program, along with guiding documents that DNR can utilize to support the development and sustainability of strong partnerships with shared goals and visions.

A critical element to DNR's work moving forward will be to further address areas that were touched on in this report:

- To convene an advisory council with diverse representation, including youth, to make sure youth voice is centered in program design;
- To build partnerships with organizations facilitating expanded learning opportunities with youth in areas DNR may focus on for its initial demonstration projects;
- To move forward with funding and staffing an education program so that this work can move forward with a focused and aligned vision for the agency;
- Ongoing efforts to seek to better understand the barriers that underserved communities face when looking for outdoor education opportunities, and actively work to lower those barriers;
- To utilize frameworks that have been developed by coalitions and experts in the field when implementing education and career-connected learning programs.
- To engage in further research and development of school-based partnerships that align with expanded learning opportunities for young people.

As DNR develops an education program there will be plentiful opportunities for partnerships, collaborations, and ways to align goals of various divisions of the agency. The tools and frameworks provided in this report will support the intentional and strategic focus of this work in order for a sustainable long-term program to be established.

X. Appendix

A. Organizations in Washington and other regions doing important work in this area.

There are a number of organizations, nationally, who are already doing significant outdoor education work that may offer examples of potential programming and model partnerships. Here are some that came up from focus group conversations and discussions with research partners:

North Cascades Institute, Sedro-Woolley, WA:

<https://ncascades.org/>

IslandWood, Bainbridge Island, WA

<https://islandwood.org/>

Teton Science School, Idaho:

<https://www.tetonscience.org>

Center for Diversity and the Environment (CDE), Portland, OR: <https://www.cdeinspires.org/>

Minnesota Department of Natural Resources, MN:

<https://www.dnr.state.mn.us/education/teachers/outdoor-lessons.html>

<https://www.dnr.state.mn.us/plt/plt-ojibwe-dakota-lessons.html>

<https://www.dnr.state.mn.us/careers/idec.html>

Chrissy Field Center, San Francisco, CA:

<https://www.parksconservancy.org/programs/crissy-field-center>

Stroud Water Research Center, Avondale, PA:

<https://stroudcenter.org/news/stream-girls-become-leaders/>

Pacific American Foundation, Kaneohe, HI:

<https://www.thepaf.org/>

Vermont Afterschool, South Burlington, VT:

<https://vermontafterschool.org/mgm-august21-resources/>

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Acknowledgements

School's Out Washington and Washington State Department of Natural Resources would like to thank the individuals and organizations that provided input and guidance in the development of this report.

The team from DNR and SOWA that collaborated to generate this report:

Lauren Appel, Education Consultant

Doug Kennedy, Strategic Advisor, State Uplands, Department of Natural Resources

Stephanie Celt, Senior Policy Advisor, Office of the Commissioner of Public Lands, Department of Natural Resources

David Beard, Policy & Advocacy Director, School's Out Washington

Brianna Kirschenbaum, AmeriCorps VISTA, School's Out Washington

Ben Baird, Program Manager - Spokane Co., School's Out Washington

Additional individuals and organizations who supported the development of this report through interviews, focus groups, and stakeholder conversations:

Marissa Aho, Policy Director and Chief Resilience Officer, Department of Natural Resources

Alex Hooker, Strategic Planning Consultant and former Senior Program Officer at the S. D. Bechtel, Jr. Foundation

Chris Nietzy, Director of STEM Initiatives at the Afterschool Alliance

Corey Newhouse, Founder and Principal at Public Profit

Steve Fowler and Lena Hoffman, FowlerHoffman LLC

Pacific Education Institute

Yakima Valley Farm Workers Clinic

Vision Step Team

Her Village

YMCA

Camp Fire

Woodland Park Zoo

Boy Scouts of America

Washington National Guard Child & Youth Services

Parents of Future Leaders

Green Belt

The Service Board

This report was made possible by funding from STEM Next and the Million Girls Moonshot Project (<https://milliongirlsmoonshot.org/>). The Million Girls Moonshot is a five-year initiative of the STEM Next Opportunity Fund which leverages funding from the Mott-funded 50 State Afterschool Network, which has access to more than 10 million youth and 100,000 afterschool programs across the country.