

# Impacts of Outdoor Experiences for Young People

*In partnership with Wilderness Inquiry and Harding High School*

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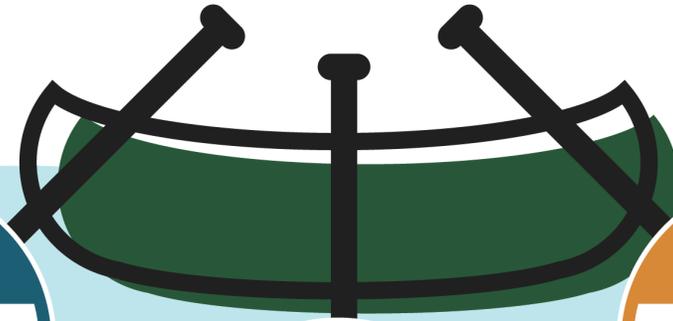
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# WILDERNESS INQUIRY'S IMPACT ON YOUNG PEOPLE



## BUILDING RELATIONSHIPS

### Connecting with teachers & WI staff

- Positive influences  
*Feeling seen*

### Sense of community

### Meeting new people

- Friendships



## BROADENING PERSPECTIVES

### New experiences

- Natural areas away  
from home  
*Finding joy in nature*
- Learning about self
- Getting out of their  
comfort zone  
*Gaining confidence*  
*Interest in further  
outdoor exploration*

### New skills

- Overcoming  
challenges  
*Sense of pride*
- Teamwork
- Problem solving



## ENGAGING IN ENVIRONMENTAL LEARNING

### Understanding of human impact

- Stewardship

### Holistic learning

- Respect for  
environment

### Exposure to environmental careers

### Sense of belonging

- Learning to slow down  
*Connecting with  
nature*

## Charting the Course: Introduction and methods

In 2023, Wilderness Inquiry (WI) contracted Wilder Research (Wilder) to better understand the impacts of outdoor experiences on high school students involved in Harding High School's Earth Club (EC), a WI partner organization. Additionally, WI sought to learn how these outdoor experiences for youth related to WI's Pyramid of Outdoor Engagement (see section *Bridging the Waters: Linking the Pyramid of Engagement to Harding High School Partnership*).

To achieve this, Wilder facilitated two Ripple Effect Mapping sessions with Harding High School students involved in EC and conducted interviews with educators and parents of the EC students.

Ripple Effect Mapping (REM) is a method used to understand the intended and unintended impacts of community-based programs. It involves a facilitated discussion with program participants and the creation of a visual “mind map” during the discussion that shows the links between program activities and changes or “ripples” in the community. This project utilized a modified REM approach which focused largely on themes as opposed to ripples. Typical REM sessions often involve multiple stakeholder groups and programs or initiatives that are multi-year or somewhat complex in nature. Given the level of engagement with WI among student participants, extensive “rippling” is not expected. Students were able to identify several important impacts at individual and cohort levels. After the completion of these sessions and related reporting, Wilder conducted additional analysis and mapping to better illustrate the connections between impacts noted.

### Modified Ripple Effect Mapping

Wilder hosted two REM sessions; the first was held in December 2023 with 18 students and the second was held in March 2024 with 12 students. These discussions focused on three key questions:

- What have you learned about or learned to do in the outdoors, like a skill you learned or something you didn't know about the outdoors before?
- Who have you met and gotten to know, like people in Earth Club or people from Wilderness Inquiry?
- What have you learned about taking care of our natural environment, such as conserving or protecting nature spaces for future generations?

In each session, students discussed the above questions in pairs. During paired discussions, students wrote their answers to the questions on sticky note “leaves” (Figure 2). All students

shared their sticky notes with the group and placed them on a diagram of a tree that everyone could see. As students shared their sticky notes, Wilder asked follow-up questions to clarify their meaning and determine similarities and differences with others' experiences. Wilder staff then sorted these notes into themes and shared these back with students during a facilitated large group discussion. For each theme, students were asked for feedback about reframing or renaming it based on their experiences.

The first REM session was designed to include students who had only participated in WI day trips, however two students who were in attendance did not fit within this group. The second group was designed for students who had been involved in an extended trip (e.g., overnight), however one student's participation status is unknown. Please see Figure 1 for more details.

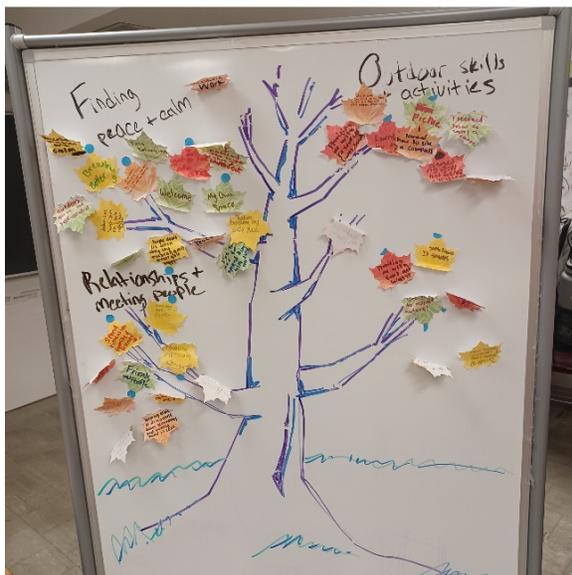
### 1. Number of experiences REM students have participated in (N=28 students)

	Day trip(s) only	Day trips + 1 overnight/ extended trip	Day trips + 2 overnight/ extended trips	Day trips + 3 or more overnight/ extended trips
REM 1 <sup>a</sup>	16	1	--	--
REM 2 <sup>b</sup>	--	6	1	4

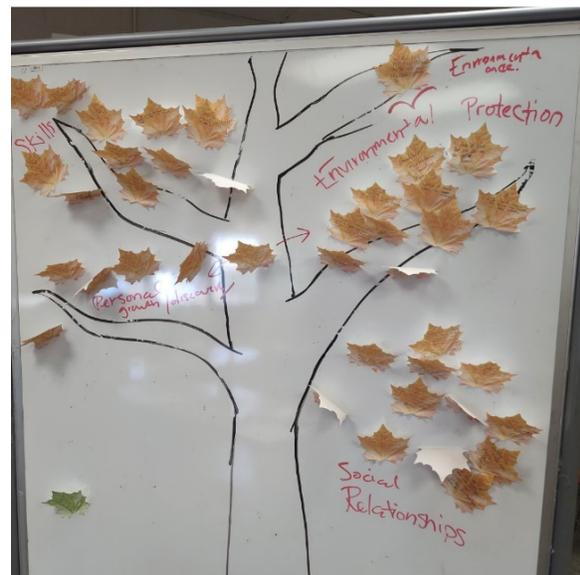
<sup>a</sup> One student is not included in this count as they did not participate in any WI or EC experiences; it was their first time attending an EC meeting

<sup>b</sup> One student is not included in this count as their participation is unknown

### 2. Pictures of sticky notes organized into thematic clusters



REM session 1 (December 2023)



REM session 2 (March 2024)

## Interviews with educators and parents

To gain more nuanced insights, Wilder interviewed three educators from the district who are involved in both EC and WI experiences with students. Additionally, two parents of EC students were interviewed to better understand the impacts of outdoor experiences in a home setting. These interviews provided further context for interpreting REM findings on the impacts of meaningful outdoor experiences, including those provided by WI and EC.

Similar to the REM sessions, Wilder was responsible for creating interview questions (with input from WI) and conducting interviews with educators and parents. Limitations to this method are noted. Ideally, more parents would have been interviewed, but contacting parents proved difficult and time-consuming. Additionally, many parents' primary language was not English, which further complicated outreach and interviewing efforts. Therefore, little information was gleaned for impacts on youth in home settings.

## Contextual discussion

It is important to note that distinguishing the direct impact of a specific WI experience versus an EC experience versus independent outdoor experience is challenging, if not impossible. WI is most notably known for hosting day-long and extended trips, and students might not be aware of all of the support WI provides, such as funds for transportation to non-WI programs, activities, or events. Thus, while direct links from specific programs to overall student outcomes may be difficult to establish, it wouldn't be a long shot to infer the important role WI has played in reaching these impacts.

When talking to parents, it became clear that questions should be asked in terms of general outdoor experiences, as parents were not familiar with the difference between EC and WI nor the specifics of activities, beyond the basics of their child has outdoor experiences both close to home and further away. For parents, EC was an extension of school, with one parent noting they had no idea what WI was.

The term “experiences” used in this report refer to broad experiences like a Boundary Waters trip, it also encompasses activities within these experiences, like learning how to cook outside or orienteer.

The findings from these activities are summarized in the report below. Please note, quotations are used throughout the report to illustrate the themes discussed. Quotations may have been edited for clarity.

## Navigating impact: Key findings

*Wilderness Inquiry impacted me the most in my personal growth because I've been sheltered all my life, and this experience really helped me see the world in new light. – Harding High School student*

The REM sessions and interviews were analyzed for themes, and three outcome areas emerged as key experiences linked to students' outdoor experiences like those offered through WI and EC. These outcome areas—engaging in environmental learning and stewardship, building relationships, and broadening perspectives—are described in the following sections. It is important to note that these areas are interconnected; an aspect in one area may influence another, indicating that they are not mutually exclusive.

### Engaging with nature: Learning and stewardship

Students emphasized aspects of their outdoor experiences that connected them with nature in ways that were new to them.

#### *Understanding human impact*

✓ Pyramid connection: Exposure to the natural world

**Outdoor experiences, such as those provided by WI and EC, help students understand human impact on the environment. Students learned conservation concepts while simultaneously developing an understanding of their own role in conservation.** For example, the "leave no trace" concept is an important principle introduced at the beginning of students' involvement in WI and EC. As students expand their outdoor experiences, they begin to better conceptualize their roles as environmental stewards, with these types of environmental actions becoming more habitual over time.

*The most notable thing was 'leave no trace'—basically saying to leave it better than how you find it. Pick up trash if you see it at a campsite. I started to do that, too. – Student at REM session #2*

*Whatever she learned in school, she kind of used it around the house...[S]he actually understands a lot [in terms of picking up and recycling] because she learned that from school. – Parent*

Educators also identified ways in which the sense of “place” plays a crucial role in students' conceptualization of environmental stewardship. For many students, outdoor experiences, whether through WI or EC, are new and transformative—a topic discussed more extensively later in this report. These programs immerse students in natural environments, helping them understand what they should be conserving. Therefore, they are more inclined to preserve something with which they have a connection. Further, WI and EC encourage

students to see their neighborhoods differently, demonstrating that nature exists even in urban areas. This realization—that you don’t need a car or tent to experience nature—helps students recognize the presence of nature in their “own backyard.” **This connection motivates them to become environmental stewards regardless of their location or place.**

*There were many times where we took a city bus or short bus ride to nature. Initially the feeling that you can’t do that ...nature is somewhere else. Helping breaking down for students that nature is here and nature exists in Saint Paul is the main thing that we want students to realize. And that it is worth protecting here.  
– Educator*

*I think a lot of times people aren’t concerned with conservation because they don’t know what they are conserving, and I see that a lot over the last 20 years working with Saint Paul public high school students. A lot of kids just really don’t leave the city, and it’s pretty heartbreaking when I think about the beauty as well as the enjoyment and the physical health and social, emotional health that being in nature brings. – Educator*

### **Belonging in the outdoors**

✓ Pyramid connection: Immersion in nature; Group belonging

**Many students commented on an increased sense of belonging outdoors as a result of their experiences with WI and EC.** Regardless of duration, location, or frequency of participation in a facilitated outdoor experience, students identified a sense of calm and peace afforded by nature and natural environments. Many students in the first REM session described “self-care” as a reason they enjoy outdoor experiences; terms like “peace, calm, happy, free” were used to express these feelings.

Underlying expressions of “feeling calm and at peace” are intentional efforts by WI and EC to help introduce and facilitate approaches to well-being. Students are also better able to understand the health impacts the outdoors can have. Both students and educators noted that during experiences with WI or EC, they have the space and encouragement to take time to be quiet and connect with nature. **These types of experiences help students learn to slow down**, and they feel more able to have time to disconnect from things like screens or the constant “go-go-go mentality.” Students also have the opportunity to use all of their senses (e.g., listening to birds, touching trees, breathing deeply), which might be hard to practice in urban or school settings. These experiences therefore encourage students to incorporate such practices into ways in which they connect with nature on their own.

*When I am home on the weekends, or after school, I like going to my backyard—it de-stresses me. I go out there for 10-15 minutes maybe. It feels at peace. I look at the stars, also a big oak tree. I like to hear the sounds, and maybe see my neighbor, too.  
– Student at REM session #1*

*Wilderness Inquiry helped me with appreciation for the natural environment around us, by having us take a moment of silence to just observe different senses, like hearing nature and seeing nature. Just living in the moment and feeling it.*  
– Student at REM session #2

*We took time to just be quiet, and I think they're so bombarded with noise all the time, whether it's from a device or just ambient noise of traffic and airplanes and other voices, and just to sit and listen to birds and listen to the sound of the bird or listen to the sound of the water or the texture of the grass, or ... It's just so powerful at calming that nervous system.* – Educator

## **Beyond the classroom**

✓ Pyramid connection: Exposure to the natural world; Immersion in nature

Experiences offered by WI and EC provide students with hands-on, beyond-the-classroom learning in natural environments. These experiences help students connect their lives with the environment through real-life scenarios, allowing them to see **learning in action and develop a more holistic understanding of environmental concepts**. Such connections can also foster a deeper appreciation and respect for these environmental spaces, providing context that can only be achieved through this type of learning.

*When we went to Afton, we did the sign of respect to who was originally on this land, and people, before camping there and stuff. I know one of the Wilderness Inquiry staff told us about it and respecting what land we're on right now, and the people who were here before us.* – Student at REM session #2

*Just getting in there and doing things. Watching a video or getting instructions or getting a presentation only goes so far. Actually doing something is the biggest way to connect. That is what WI provides.* – Educator

*They could learn about water quality in science class, but when you're actually sitting on the water, it's a whole different level of understanding, I think, that kids come away with.* – Educator

*[My child] really likes the outdoors and participating and doing hands-on [activities]. So that has really helped her a lot.* – Parent

## **Future careers**

✓ Pyramid connection: Exposure to the natural world; Positive identity

**Through experiences with WI and EC, students are exposed to outdoor and environmental careers.** While students did not explicitly discuss potential careers during the sessions, this point emerged during conversations with educators and one parent. These interviewees identified conversations with students about such careers. Adults, due to their roles as teachers or parents, may place more emphasis on career trajectories compared to high school students who may not yet be thinking about their futures in this way.

Educators noted that students are exposed to a variety of outdoor experiences that differ in duration, location, and number of experiences. Participating in multiple, longer, or diverse trips may expose students to a broader range of potential careers in outdoor and environmental fields.

*[My child] talks about future careers. He would like to do something outdoorsy when he gets done with school, some sort of job that focuses on being outside.*  
– Parent

*I think with longer trips students can also see how outdoor jobs could be a possibility. They can see what the guides are doing, and maybe that could possibly lead them to think about tours and outdoors. A couple of the students have asked about becoming guides or getting outdoor jobs—that comes out of longer trips.*  
– Educator

*They have highly trained guides—getting to know the guides pretty well on the long trips. The other thing is that these are young people and they're trip leaders—students can see that they are young people and can see pathways for themselves being guide or working in the outdoors.* – Educator

One interviewee noted that experiences like those with WI give students “access” to staff and guides who identify as being part of a diverse racial or ethnic group. This is particularly essential for Harding High School students, 96% of whom identify as BIPOC (including two or more races), according to the State of Minnesota’s Department of Education Report Card<sup>1</sup>. **Having diverse guides and staff may help students envision themselves in outdoor careers because they are seeing people who may look like them in these spaces.** As noted in a quote above, students look up to these guides and may therefore be able to envision themselves in a similar career pathway.

A large part of belonging is feeling safe and being part of a group. Two educators poignantly noted that experiencing the outdoors with other people of color fosters safe and accessible **experiences for BIPOC youth**. A 2022 visitor study conducted by Wilder Research for the Minnesota Department of Natural Resources found that despite an increase in the percentage of people of color visiting state parks from 2017 to 2022, state park visitors are still more likely to be white compared to the Minnesota population<sup>2</sup>. Many larger outdoor recreation sites are located in rural areas, where feelings of isolation or fear due to potential discrimination can become barriers for BIPOC individuals seeking these spaces on their own.

*It is intimidating to go places in this state if you are not white and you're in a rural area or an area where there isn't much diversity, there's a fair amount of fear and a fair amount of discrimination that exists in that space. So I think a lot of people are like, 'I don't want to deal with that.'* – Educator

*The word 'access' means that they give you supplies but also seeing people in the outdoors that look like them.* – Educator

<sup>1</sup> [https://rc.education.mn.gov/#demographics/orgId--10625215000\\_year--2024\\_p--9](https://rc.education.mn.gov/#demographics/orgId--10625215000_year--2024_p--9)

<sup>2</sup> <https://files.dnr.state.mn.us/aboutdnr/reports/parks/2022-state-parks-visitor-study.pdf>

# Padding together: Building relationships

During WI and EC experiences, students are able to foster meaningful relationships. The connections they described included adults and peers, and many described facets related to community building.

## Developing friendships

**Students in both sessions strongly emphasized the new friendships formed as a result of WI and EC experiences**, and they described being able to bond over shared experiences. Many of the experiences they participate in through WI and EC are new or sometimes challenging to students, which deepens their connection with one another. Additionally, students are given the time and space to bond and create these communities with each other. One educator noted that similar experiences students may have had in other cultural or personal settings can emerge during their time together.

*More bonding because of the different environment. School is a certain environment. Then going to a camp overnight, living. It's different. – Student at REM session #2*

*When we got on the river, we got into these groups and I was with students that I didn't know that well, most of them were English language students in that boat. I was partnered on the same bench with this kid from Congo, and there was a log floating in the river and he panicked. He's like, 'Alligator! Alligator! Crocodile! Crocodile!' I was like, 'No, it's a log. We don't have alligators or crocodiles in Minnesota.' And then we got into a really just beautiful conversation about what animals we have and what animals are in Congo, and talking about the ecosystems and the difference in place and then what was the same. And one of the other students behind us was from Myanmar, and so she was talking about snakes and what snakes do we have? It was just a really amazing experience to share the different cultures and connect what we were seeing here to what they had in their home countries, it was fun. It was just a really cool way to connect with other people. – Educator*

## Fostering connections with adults

✓ Pyramid connection: Network building; Group belonging

**Students are able to connect with educators and WI staff (e.g., guides) and build meaningful relationships through WI and EC experiences.** Both students and educators noted opportunities for connecting on a more personal level during WI and EC experiences. These groups also mentioned that students are encouraged to connect with WI staff (e.g. guides). For some students, these connections to WI staff may be the first time they interact with adults outside their families or schools on this level.

*I learned more about WI staff. I learned more about my teachers. – Student at REM session #2*

*I really enjoyed getting to know students. At school, in my classroom, I have 36 kids per class... I think it is so powerful to get kids outside of school and actually on the water or in the woods, you just get to know kids in a different way. – Educator*

Experiences through EC and WI also help students interact with a greater number of adults who can serve as role models and have **positive influences** on students. One educator pointed out that WI staff in particular are able to connect on both a large group and individual, helping students feel “seen” and respected.

*They do the large group, small group, and the individual connection with kids. And unlike teachers or parents, there isn't the expectation of achievement. It's really just getting to know the kid for who the kid is and supporting that child, which is just beautiful. And as both a parent and teacher, the more positive influences we can have for our children, the better it is. The more adults they can have in their lives that are encouraging them and supporting them and making them feel seen and heard and valuable, it's priceless. – Educator*

### **Growing community**

**WI and EC experiences help students develop a sense of community** with peers, educators and WI staff. For students, the sense of community primarily refers to their peers involved in EC and, to a lesser extent, the adults from EC and WI. Educators, on the other hand, observed more nuances in the concept of community. They noted this development at the peer level (within EC), within the broader school context, and with adults involved in WI or school settings.

It is important to note that WI was interested in understanding the impact of outdoor experiences on the broader community beyond the school. While there was one instance indicating that EC makes efforts to help keep the Harding High School community clean, there was no notable evidence in this work of an impact on the broader community beyond the school.

*[There is] inherent value in experiences that allow for community building outside the classroom. – Educator*

*We have a lot of great experiences camping, and making big trips, but we also do things in our community as well around Harding and the Harding community. We look at what is out there. We clean up our areas—we do storm drain cleaning. – Educator*

## On the horizon: Broadening perspectives

Students described an extensive range of new experiences they had through WI and EC and the related skills they developed.

### **New experiences**

- ✓ Pyramid connection: Outdoor skills development; Accomplishment; Immersion in nature; Confidence; Positive identity

**Students, parents and educators all noted that students are afforded experiences that would otherwise be inaccessible to them if not for WI and EC.** For most of the students, camping, hiking, canoeing, and even traveling out of the state is new and novel. These new and exciting experiences keep students involved in EC and help attract new members.

*Yellowstone, was memorable because the first I'd ever gone camping. First time away from Minnesota. [I] learned new things, ate outside, cooked outside, everyone had their part. – Student at REM session #2*

*WI helped my life a lot. I got to meet new people. [I have been] sheltered. Parents didn't give me options to [do these types of things]. – Student at REM session #2*

*[My child] likes WI because he gets to explore and do things he normally wouldn't do. – Parent*

*The exposure to the things we don't know or get to experience is one of the important jobs of a well-rounded public education. We can do that in so many different ways whether it's through literacy or mathematics but also through adventures right here in our city. – Educator*

*Without WI we wouldn't have the draw that we do. People stick with EC because we get to do big exciting things. We offer that which others just simply can't from a financial standpoint. – Educator*

*I think the short-term effects really burst the bubble of access. Kids, especially in Minnesota, they hear about people's cabins or going up north or images of canoes are everywhere, including our license plates. But to actually figure out, 'How do I get into a canoe on a body of water and experience it?' is a huge step. And so I think those one-day trips really give kids the opportunity to explore that. – Educator*

**When students have an opportunity to see natural areas away from home and escape the noise of the city, they experience a shift in their opinions of the natural environment and outdoor experiences.**

*Changed my point of view when I thought there was nothing to do outside. – Student at REM session #1*

*[I] learned to respect nature. – Student at REM session #2*

*I learned that I like to go hiking in the winter, not the summer. I've never gone winter hiking before, and I thought I just didn't like hiking. But no, it changed my opinion. Winter, it's a totally different environment, and it's kind of surreal to be walking out on a frozen lake and seeing all the bubbles. – Student at REM session #2*

*Nature is beautiful! – Student at REM session #2*

*One boy had his iPad out the window and just had it on video, and I asked him what he was doing and he's like, 'It's so pretty, I can't wait to show my mom what it looks like out here.' And we're less than 15 minutes from school at this point. But just that excitement that they had and the wanting to share it with their families was exciting. – Educator*

*I think having these positive experiences in these natural places gives students a reason to want to preserve them. And I think if people are so disconnected, they haven't been in these places, they don't understand what it is, they don't understand what all the fuss is about, like 'There's plenty of woods, I don't care.' But when you've been there and you're like, 'Ooh. No, this is a special place. I want to come back here and I want it to be like this. I don't want it to be like a McDonald's on every corner or something like that.' I think it gives kids a context for that conservation, which if you don't have context, it's hard to understand what it's all about, what the fuss is about. – Educator*

Students and educators noted a new or **greater ability to find joy in being outside** through their WI and EC experiences, whether through a grueling seven-mile hike or sitting around a campfire making Red Lobster cheese balls in a Saint Paul City park. Educators noted that some of these students may not have opportunities for joyful and meaningful experiences, so experiences through WI and EC are rare times where students can feel this emotion.

*Often time for students—will go on these trips and it's been a long time since they experienced joy at school. – Educator*

*WI helped me appreciate... silence. Hearing nature. Seeing, living in the moment. – Student at REM session #2*

*I think for kids, once we're on these trips, there is homesickness, there is the culture shock of being out of the city and being more remote, not having their phones and their AirPods or earbuds or whatever they are. That's an adjustment. Having to get comfortable in group settings or meeting people or getting closer to people you don't necessarily know, talking to adults. – Educator*

*His outlook on life – he is motivated to do things—motivated to work. He's working for paying off a trip to South Korea with school. He is really excited about doing that. Just giving him so much experience to want to do new things in life and continue to grow within himself personally—like mentally. – Parent*

Outdoor experiences also facilitate opportunities for students to learn about themselves. Through engaging in opportunities outside of their comfort zone, students described **growing confidence in their abilities**. This newfound confidence and comfort with being outdoors supported students' overall interest in further outdoor exploration and engagement in outdoor experiences.

*A couple of winters ago we put all the kids on cross-country skis—one young man who was very certain he couldn't do it [ski]— [he had] very little confidence. The experience was super empowering [because he did ski]. That opportunity to connect with students builds confidence outside of the classroom walls. If they can just power that back inside the classroom is immense. – Educator*

*Once we got out on the water and we were looking at plant life and birds and putting our hands in the water and we did some water quality testing, they really moved past [being scared]. They weren't screaming anymore, freaking out if we wiggled. But definitely saw them becoming more comfortable in the boat. – Educator*

*[H]elping kids see, 'I'm here with school and Wilderness Inquiry, but I can come back on my own.' So I think that's the joy of those one-day experiences, is really just giving kids the awareness of this, 'You have access to this and it's yours.' – Educator*

*With school, and people.... [my child] usually gets nervous around new people, so I think it gives him comfort to be around other kids and adults that help him be more open in doing things. – Parent*

## **Skill building**

Throughout their involvement in EC and WI, students are able to develop and grow new skills. Conversations with students, educators, and parents revealed that these skills were not just limited to technical skills (e.g., setting up a tent or navigation with a compass), but also inter and intrapersonal skills like **teamwork, self-motivation, and problem solving**. Reflecting on their experiences with and abilities to overcome challenges on WI or EC excursions, students expressed a sense of pride in themselves; this was echoed by educators as well. One educator elaborated that both hard and soft skills help students overcome challenges. To learn more about the skills and knowledge gained please see the Appendix A1 and A2.

*[I] learned how to start a fire in the middle of the woods. I thought you just randomly picked up wood and started tearing into it. But you can't do that in the winter. – Student at REM session #2*

*Last week's trip, we were learning about orientating. If you don't have a map, [learning]how to use a compass correctly. – Student at REM session #2*

*We are not just throwing them in the woods – we are providing them guidance, tools and support. In terms of tools—for example, camping, a lot of kids want to do that, but they can't because they don't have a tent or those sorts of things. Also having someone there that also knows what they are doing and can provide them information and support when they are doing those sort of things. – Educator*

*Before we even got in the canoe, we got into our small group and put on our life jackets and figured out how to hold a paddle. WI staff did a really great job of going through all of the logistical parts that will keep [students] safe. – Educator*

*The hard skills, definitely they learn those and that is awesome because I think learning those hard skills actually gives them confidence to continue to explore the outdoors, like, 'I feel comfortable camping. I feel comfortable. I know how to steer a canoe. I know how to put on snow shoes and cross-country skis,' or whatever. So I think that is just ... Learning the hard skills is part of building the confidence to get them out there and to get them exploring. – Educator*

*We do have skills we learn like paddling or setting up camp—it kind of compounds itself once you get a certain base of knowledge, you can learn more skills, and are not scared by it. Yes, we do specific skills, but when people get a core knowledge or comfort in the outdoors, they can learn other things as well. – Educator*

*On our last trip we went to Camp Menogyn – a lot of kids went up there and they were really proud of what they were able to accomplish. Our hike was grueling. We were hiking in wet cold boots for hours. The kids were able to accomplish things. Our kids are not afforded those challenges. None of our kids go to summer camps. None of our kids go to the BWCA. They can challenge themselves in a different setting in the outdoors—that is one of the things that stands out. – Educator*

# Bridging the waters: Linking the Pyramid of Outdoor Engagement to Harding High School partnership

WI uses a guiding framework called the Pyramid of Outdoor Engagement (Figure 3) to better understand the impact of their programs based on the duration and type of activity, similar to a theory of change. Although not explicitly stated in the pyramid model, WI staff and educators indicate a desire for students to participate in a greater number of experiences, with longer durations (e.g., a week-long trip versus a single day) and a wider variety of activities (e.g., a trip to Yellowstone versus a visit to a local park). The expectation is that these cumulative experiences will have a more profound impact on the youth, including improved social emotional health. Additionally, there is a hope that as student “move up” through the pyramid, they will start to independently seek out outdoor experiences and achieve long-term, meaningful outcomes.

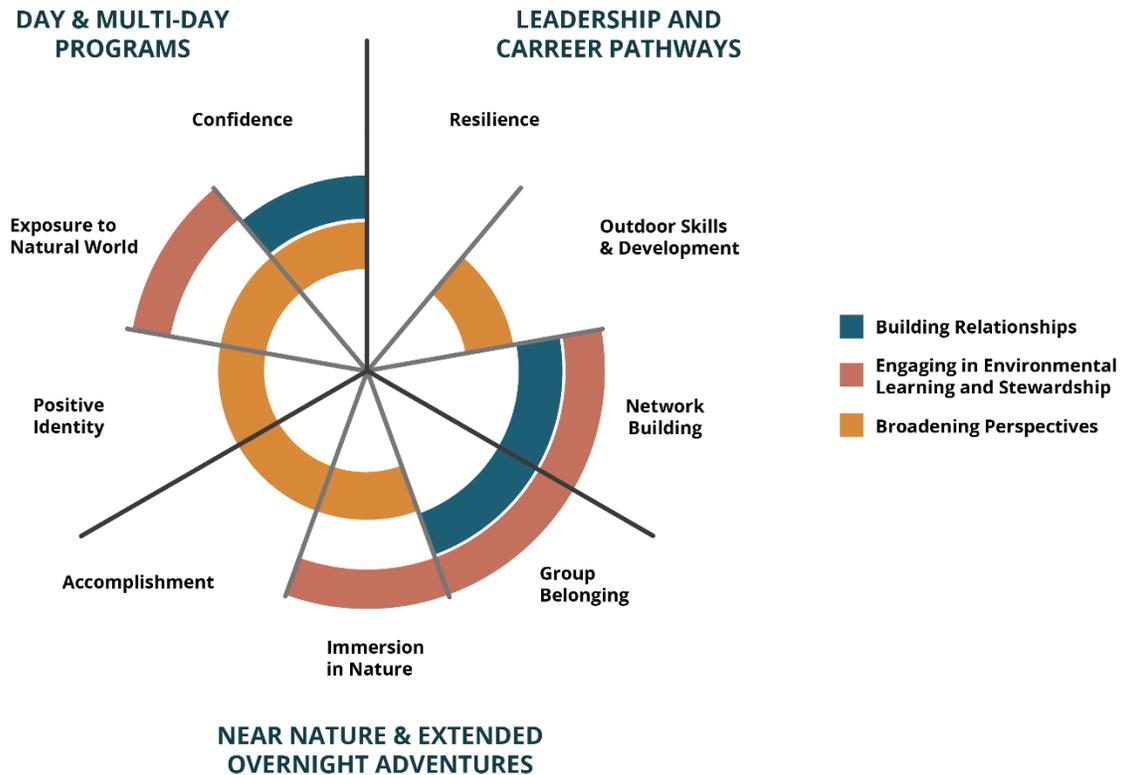
While these facets of program strategy were outside the scope of this project, some related themes did emerge (outlined in the findings section above). It should also be noted that any alignment of outcomes noted among study participants may not be translatable to other school settings, as Harding High School receives a significant level of support from WI. For schools that do not receive similar levels of support, the impact will likely vary.

### 3. Pyramid of Outdoor Engagement



Through a secondary analysis of data framed alongside WI's pyramid, Wilder determined that students show at least one area of impact within each pyramid outcome area (Figure 4). Most notably, there was significant alignment with the key findings related to environmental learning and stewardship.

#### 4. Pyramid of Engagement Connection to Harding High School Students



#### Social-emotional health

WI was interested in better understanding if progressive experiences (such as longer durations, more trips, and a variety of activities) contribute to the overall social-emotional health of youth. However, due to the scope of this project's design, we were unable to fully explore this aspect. That said, there are some initial indications that suggest programming may positively contribute to overall social-emotional health.

The first REM session included students who had participated only in day trips, though the exact number of trips is unknown. These students exhibited signs of growth in **self-awareness and self-regulation**, particularly in using the outdoors as a place to find peace and calm. One educator mentioned that WI emphasizes the importance of taking time to breathe and reinforces this throughout the trips. This suggests that WI and EC's "initial touchpoint" with students might be helping to foster self-awareness and provide tools for self-regulation. Interestingly, there were fewer indications of self-awareness and self-regulation among students in the second REM session (those who had participated in longer trips with WI). However, this could be attributed to the design of the session.

*I like looking for rocks specifically by bodies of water. That's my activity—go by lakes. I like to be left alone and just pick through rocks. See what I like, or what I don't like. I let anger out when I throw them back into the water. – Student at REM session #1*

There were also indications of growth in **responsible decision-making**, particularly regarding environmental stewardship. In the first session, students demonstrated a basic understanding of environmental stewardship, with their actions mostly limited to specific cleaning tasks without broader context. However, in the second session, students showed a deeper understanding of how their individual actions impact the environment on a larger scale. Educators also observed that students develop these skills and knowledge progressively over time.

**5. Indication of progress in responsible decision-making**

REM 1 students	REM 2 students	Educator
Learn to respect nature Cleaning up the garden Cleaning off leaves Cleaning trash	It's important to protect nature for the next generations  Boundary Waters have [visitor restrictions] that help with keeping the environment less impact by human foot traffic. Boundary Waters are a protected area, so humans don't impact as much as other places.	There's some woods behind our school, so we'll go walk through there. I always carry a trash picker upper and a bag, and I've noticed the first time we go, I'm usually the only one picking up trash, and then the next time a couple of other kids are like, "Oh, here's some trash for your bag." As we move through the semester, everybody wants their own trash bag or their own garbage picker.

The most prominent indication that progressive experiences contribute to social-emotional health is in **building and maintaining healthy relationships**. All sources highlighted the positive impacts of WI and EC on students' ability to form and sustain relationships.

In the first REM session, students noted meeting new people, mostly peers, and began to feel a sense of belonging through their involvement in EC and WI. By the second REM session, these relationships were described in greater depth, showing that they had evolved into deeper and more lasting friendships. This group of students expressed a strong sense of belonging. Additionally, the two parents who were interviewed noted similar sentiments—that their children's friendship groups are from EC, importantly the children of these parents were all in group 2. Educators corroborated these observations, recognizing the growth of these friendships and connections over time.

## 6. Indication of progress in building and maintaining health relationships

REM 1 student	REM 2 student	Educators	Parents
Meeting new people	<p>I've gotten to know almost majority of my friends from earth club who [I now] consider as family.</p> <p>WI has us share a common space literally and like friendship wise</p>	<p>One of the things that a lot of our students at Harding don't do is they don't have a deep lasting relationship with some of their teachers. Their teachers are just people that give them information then they move on the next semester. In EC, we create long-lasting relationships. Those type of relationships can only happen with those longer trips. I talked about that sort of confidence and comfort with someone on those longer trips. – Educator</p>	<p>I feel like he likes doing [WI and EC experiences], and he enjoys what he gets out of it – the satisfaction of being outdoors and hanging with friends.</p>

Conversations with educators revealed that progressive experiences contribute to broader impacts, both directly (such as outdoor skills or knowledge) and indirectly (like social-emotional health), aligning with the Pyramid of Outdoor Engagement. Anecdotal evidence suggests that the experiences provided by WI and EC are leading students to independently access these spaces outside of WI and EC. Because this project's scope and methods were designed to learn about the impact of involvement in Harding's Earth Club, the full extent of this alignment with the pyramid is unclear.

*I just think repetition. Just like anything, the more often we can get kids experiencing nature, experiencing outdoor learning, experiencing applying what they've learned in any class, in any formal structure, in their family, anywhere into the real world, I think it's really important. So just repeated exposure. And then, again, creating those pathways for them to access it on their own. – Educator*

*Bigger trips have a bigger impact. – Educator*

*[Experiences are] very novel, it is very exciting, it is very fun, without having a level ... It's not very challenging. It's not going to put them in any emotionally difficult space, usually. And it really is about trying something new and having a great experience, and hopefully it encourages them to try it again, either with Earth Club and Wilderness Inquiry or even on their own. – Educator*

*[My child] likes EC because he gets to explore and do things he normally wouldn't do. If he never joined EC, I am pretty sure I wouldn't be taking him on stuff they take him to, like camping and other outdoor things. I am glad he has the opportunity to be able to explore and do things he likes to do. – Parent*

## Charting new waters: Recommendations and next steps

The work WI and EC do is immensely important to youth in getting them involved in the outdoors and having new and sometimes life-changing experiences. Youth are able to build meaningful relationships and engage in environmental learning and stewardship. Below are some suggestions WI can consider as they move forward in growing their youth programming and ensuring youth are able to access outdoor experiences.

- Though not asked directly, educators identified some potential barriers that students may face when accessing outdoor experiences on their own.
  - **Transportation may be the biggest barrier for students.** If students and/or their families lack modes of transportation they are less likely to access outdoor spaces not within their immediate neighborhood. Additionally, not all neighborhoods have outdoor spaces, therefore some students may not have any opportunities to access outdoor spaces. WI could consider looking to partner with transportation services like Metro Transit to provide passes or discounts to students and their families. WI could also consider creating family days for students and their families at a local park; this could include a shuttle bus from Harding High School to the location.
  - **Students and their families may not understand how park systems work** (e.g., vehicle permits, equipment rental, camping reservations). For instance, visiting a state park might be a new and unfamiliar experience. There is also a cultural difference in recreation spaces; in some countries, park systems are uncommon, and land boundaries for recreation are not typical. Paying to spend time in nature or being aware of land boundaries might be a new concept for these families. WI may want to incorporate this type of education into their activities and experiences. Partnering with agencies like the DNR or Three Rivers Park District to speak with students and their families could also be beneficial.
  - For some students **having outdoor supplies or gear is a barrier when accessing outdoor experiences on their own.** WI could consider renting out equipment for students and their families or work with organizations like REI or individual parks to make renting equipment easy and accessible to students.
- A larger and much more complex issue is that of **diversity and belonging in outdoor spaces, especially in rural areas.** WI is currently working on diversity and belonging in outdoors spaces with programs like Canoemobile, but could engage more deeply through partnerships with other agencies like the DNR or organizations focusing on DEI in outdoor settings, such as GirlTrek, Outward Bound Adventures, or Justice Outside to better serve youth and communities.

- The two parents interviewed did not have a good understanding of WI and EC. Both WI and EC may want to think of ways to better communicate the roles in students lives. As many of these students may have parents who do not speak English, translated materials may be a good first step in providing communication to parents. WI could also provide a “welcome/introduction” packet to parents that explain roles of WI and EC, provide ways in which families can enjoy the outdoors together, explain where/how families can access outdoor spaces and experiences on their own, provide coupons for rentals at local parks, etc.
- Continue to elicit feedback from students and educators. This can be through formal and informal methods, such as another formal research study or hosting informal feedback sessions. WI may also want to consider doing longitudinal tracking of students to better understand any change students may experience over the time of their involvement.
- Consider implementing an alumni survey that can be sent to past WI and EC students who have graduated and may be in post-secondary education or career stage. This could help WI better understand how outdoor experiences influenced students’ choices after graduation (e.g., career, major).

# Appendix

## A1. Hard skills gained in association to the experience by group

	REM 1 Students	REM 2 Students	Educators	Parents
Birding		x		
Camping		x		x
Canoeing (e.g., paddling)	x		x	
Caring for the environment	x	x	x	x
Cooking		x		
Cross-country Skiing	x	x	x	
Developing health habits				x
Dog-sledding		x		
Fire building		x		
Fishing/cleaning fish	x		x	
Gardening (e.g., planting)	x		x	
Hiking		x	x	x
Orienteering		x	x	
Recycling				x
Safety and survival			x	x
Snow-shoeing			x	
Water quality			x	
Water safety			x	

## A2. Interpersonal and Intrapersonal skills gained in association to the experience by group

	REM 1 Students	REM 2 Students	Educators	Parents
Communication (inter)			x	x
Confidence (intra)		x	x	
Emotional intelligence (intra)	x	x	x	
Relationship building (inter)	x	x	x	x
Self-awareness (intra)	x	x	x	
Self-motivation (intra)			x	x
Self-regulation (intra)			x	
Teamwork (inter)		x	x	

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