

FINAL REPORT

Empowering Rural Youth Summative Evaluation

PREPARED BY Kera Collective

FOR The Wild Center

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Empowering Rural Youth Summative Evaluation

Final Report



PREPARED FOR

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01 Key Takeaways



Key Takeaways

This section presents key takeaways from the Empowering Rural Youth summative evaluation, informed by the Social Impact Framework (see Appendix A), data in this report, and our years of experience working with museums. See the Findings sections that follow for a comprehensive presentation of the results by method.¹

Individuals (youth, educators, community leaders,	Rural organizations/institutions (e.g., schools/municipal leaders
advisors):1. Increase awareness of the Climate Smart Communities program and how to get involved with it in their community	 Understand their communities' vulnerabilities to climate change Understand their organization/institution's role in local climate action
 Develop skills to work effectively toward climate action with local government Foster local capacity for mentoring and sustaining youth climate action in the community over time Are empowered to take climate action in their community 	 Feel pride in their community for pursuing climate action Increase awareness of the network of organizations and resources available to support climate resilience in their community

Overall, results indicate The Wild Center (TWC) and The Finger Lakes Institute's (FLI) youth climate work through the Empowering Rural Youth project is contributing to a stronger and everexpanding network of climate action. Organizations that have been involved in the youth climate work are coming away with new and deepened relationships with other like-minded organizations, as well as new perspectives on how they can incorporate more youth voices into their climate work. Similarly, youth and educators who participated in retreats report developing skills and confidence in climate change communication and action.

¹ While we originally intended to explore both short-term (during and immediately after participation) and mid-term (1-3 years after participation) outcomes of the project, disruptions from the 2020 pandemic influenced program formats and participation well into 2022. Therefore, we focus on short-term outcomes for this evaluation due to lower repeat and sustained participation in the youth and educator retreats.

The Empowering Rural Youth project has contributed to growing and strengthening a network of organizations working toward climate action in New York and across North America.

In a survey of 28 partner organizations who have been involved with TWC and FLI's youth climate work, nearly all (80 percent) reported forming at least one new connection or strengthening an existing connection with another organization doing climate work as a result of being involved in the project. In all, partners reported connections with 64 unique organizations in New York state and across North America. Moreover, several partner organizations reported building totally new relationships over the course of the project period—beginning with no relationship in 2020 to building a strong and meaningful relationship in 2023.

This breadth and depth of relationships is notable—since 2020 when the Empowering Rural Youth project began, partner organizations have not only forged relationships with the project's two main organizations (TWC and FLI) but also with other like-minded organizations. This growing number of connections contributes to strengthening the web of climate action in rural regions of New York and beyond. As this web of relationships grows, so do organizations' awareness of the network of resources that are available to support climate resilience in their communities—one of the intended short-term outcomes for the project. With a network that includes national and state agencies; national, state, and local non-profits; higher education institutions; high schools; museums; and more, partners are connected to a variety of resources and systems to support their climate work.

2. The Empowering Rural Youth project was successful in helping its network consider new ways to mentor and support youth climate action.

Empowering youth in climate action is at the core of TWC's youth climate program's <u>mission</u>. Positively, through the Empowering Rural Youth project, partners involved in the project reported "strongly agreeing" in the survey that their organization came away with new ideas or a new perspective on how they could work with youth in the future. For example, one Adirondacks-based non-profit described that the most significant change in the way their organization approaches climate action was that "[young people's] presence and participation should not be tokenized; rather, it should be valued for the unique and necessary contributions young people can make." Others described shifts toward more "meaningful," "consistent," and "youth-led" approaches in their climate work. Interviews with educators who attended an educator retreat also revealed interest in finding new ways to support youth climate action—they were particularly inspired by hearing directly from youth speaking passionately about climate action during the youth panel. In leading by example and empowering youth to lead in climate action and meaningfully contribute to retreats, TWC helped demonstrate the value of bringing in youth to an organization's climate work in a way that partners want to apply in their own practice.

3. Youth feel confident and empowered to take climate action in their communities after participating in a youth climate retreat.

Diary study data, in which participants reflected on their experience in the retreat and their actions in the months since the retreat, showed that youth gained leadership and communication skills from their retreat experience. Participants reflected on several ways they not only implemented the ideas and lessons they learned during their retreat experience, but also influenced their family members, other classmates, and friends to consider their own connections to climate change (their "climate stories") and ways to take action. The connections participants made with each other at the retreat continued to grow in the months afterwards and provided support for each other's ongoing climate efforts. Youth described getting other young people to join environmental clubs, facilitating water testing outings with friends through school, serving on a youth panel for the Adirondack Park Agency, and plans to pursue environmental studies in college.

In particular, it seems that developing a personal climate story not only helped participants find their own connections to climate change and climate action, but also understand how they can help others do the same—in effect extending the reach of the retreat beyond its direct participants. Moreover, participants appreciated that the retreat introduced "creative" and "outside the box" examples of how to take climate action—this seemed to make them feel more confident that everyone (including youth and people who might not feel a strong inclination for science) can make a difference and find their place in the climate movement. 4. Educators are enthusiastic about incorporating climate change concepts into their teaching and supporting youth in taking climate action, but also cited a few challenges.

Overall, educators resoundingly enjoyed the educator retreat experience for several reasons. Most significantly, one-half said the highlight of their experience was the connections they made with other educators, supported by "practical" activities that encouraged discussion rather than lectures. Many were also invigorated by seeing and hearing about youth leading climate action in their own communities during the youth panel and videos shown at the retreat. And, many left the retreat with a toolkit of new ways to communicate about climate change (e.g., avoiding "buzzwords" in rural and conservative communities) and connect climate issues to non-science subjects.

Still, some educators anticipated challenges ahead for supporting youth climate action. For example, one-quarter shared that they worried about pushback from conservative communities or local government. Moreover, a few who came from outside New York state felt some of the strategies for working with local governments (likely related to the Climate Smart Communities program) were "too local" and may not be applicable outside New York state (although they still found the retreat very useful). Finally, nearly one-third wished the retreat was longer to accommodate more activities, as well as breaks for recharging between activities. If the educator retreat is extended in future years, bolstering educators' confidence in working with local governments and dealing with pushback are two areas the retreat could address.

02 Study Background



About the Study

The Wild Center contracted Kera Collective to conduct a summative evaluation of the *Empowering Rural Youth* project, funded through the National Oceanic and Atmospheric Administration's (NOAA) Environmental Literacy Program (ELP) grant. The Empowering Rural Youth project is led by The Wild Center in the Adirondacks in partnership with the Finger Lakes Institute. This report presents the findings of the summative evaluation, an update to the interim report delivered in February 2023. The goal of the summative evaluation is to understand the impact of the Empowering Rural Youth project on youth and educator participants, as well as its broader contributions to the ecosystem of climate resilience work happening in New York State (as described in the Social Impact Framework, see Appendix A).

This work has been informed by three project milestones:

- Relationship Mapping Workshop: With The Wild Center staff, Advisory Committee, and youth stakeholders, Kera developed a Relationship Map depicting connections among different people and organizations or institutions at local, regional, and state levels. This map represents our theory of the baseline climate and resiliency relationships at the start of the project.
- 2. Social Impact Framework: Kera led a discussion with The Wild Center staff and the Advisory Committee to articulate and clarify the ultimate social impact of the project on rural communities in New York State, resulting in a Social Impact Framework (see Appendix A) that presents a social impact statement, outcomes, and indicators of success for key audiences.
- 3. Literature Review: Kera conducted a literature review exploring the value of education in climate resilience and climate justice for rural communities (and the role museums could play), as well as Gen Z's preferences for engaging in personal and collective climate action.

METHODOLOGY

Kera used three distinct methodologies for the summative evaluation, described below.

Network Survey

Kera Collective designed a short online survey to be administered by The Wild Center and The Finger Lakes Institute via email to partner organizations who had been involved in the project between 2020 and 2023 (see Appendix B for survey). They survey included a mix of open-ended (write-in response) and closed-ended (rating scale) questions. The survey was sent in September 2023 and remained open for one month.

Educator Interviews

Kera conducted remote interviews during the Fall 2022 and Summer 2023 with educators who participated in educator retreats during those respective years, using an interview guide (see Appendix B). Data collectors conducted open-ended interviews with participants, asking probing questions to better understand participants experiences. All interviews were audio-recorded. Educators were provided a \$30 gift card as a thank you for their participation.

Diary Study

Kera Collective conducted a diary study with 10 teen participants of the Youth Climate Leadership Retreat (YCLR) to capture their reflections since leaving the Retreat. Participants were sent a total of four reflection prompts via text message over the course of six weeks (See Appendix B for prompts). Participants had about a week to respond to each prompt. Participants responded to the prompts directly from their phones with text and images. Participants received a \$100 gift card at the end of their participation.

DATA ANALYSIS AND REPORTING

Survey data was mostly qualitative, with a few closed-ended questions that were analyzed quantitatively. Interview and diary study data are qualitative. Qualitative results are descriptive. In analyzing the data, the evaluator studied the written responses, interview notes, or transcriptions depending on the method, looking for meaningful patterns and grouping similar responses as patterns and trends emerged. The study objectives, Impact Framework, and our professional experience informed the analysis. Findings are reported in narrative, supplemented with exemplary quotations from participants.

Trends and themes in the data are presented from most- to least-frequently occurring. When describing the findings, this report uses qualitative data terms such as "most" and "a few," as is appropriate for the sample size and the type of data collected. Such descriptive language is intended to provide readers with a sense of the general trends.

03 Network Survey



Overview

Kera administered an online survey to partner organizations involved in the Empowering Rural Youth project. We received 30 responses from 28 unique organizations. The participation rate was 57 percent.² The purpose of the Network Survey was to gather information about new partnerships and connections that have been generated over the course of the project among partner organizations. The survey also explored how being involved in the project has shaped each particular organization. The results provide context for how relationships among partner organizations have rippled out from The Wild Center (TWC) and The Finger Lakes Institute (FLI) as a result of the project.

All participating organizations are listed below:

- Action for the Climate Emergency (ACE)
- Adirondack North Country Association (ANCA)
- Carthage Middle School, Carthage, NY
- Clarkson University
- Climate Generation, US ACE Coalition, CLEAN Network
- Columbus Zoo and Aquarium
- Cumberland River Compact
- Homer High School Environmental
 Club
- Honeoye Falls-Lima High School Green Team/Eco Geeks
- Ithaca High School
- Lake Placid Environmental Club
- Mass Audubon
- Moodie's Children's Hours School

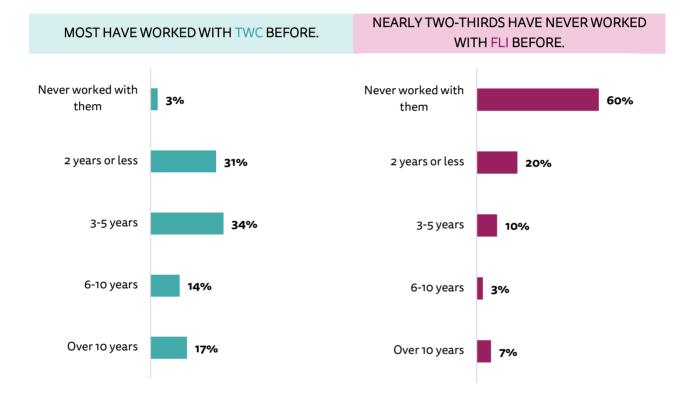
- Moorestown High School
- Natural History Museum of Utah
- New York State Department of Environmental Conservation Office of Climate Change
- North Country Homeschooling/North Country Climate Club
- NYC Department of Education
- Romulus Central School
- Science North
- Smithsonian
- SUNY Cortland
- Talking Wings Collective, and Talking Rivers, Inc.
- The Lake Placid High School
- The Next Generation And You
- YESS! Youth Climate Summit
- York Central School

² The Wild Center and the Finger Lakes Institute emailed invitations to participate to 53 individuals, and we received 30 responses.

History with Organizations

Respondents were asked about their prior relationship with TWC and FLI. Nearly two-thirds (65 percent) have worked with TWC for five years or less. One-third (31 percent) have worked with TWC for over five years. One (3 percent) have never worked with TWC.

Nearly two-thirds (60 percent) have never worked with FLI. One-third (30 percent) have worked with FLI for five years or less. A few (10 percent) have a long-standing relationship with FLI lasting over five years.



Connection to TWC's Youth Climate Work

Respondents were asked an open-ended question about their organization's role in or connection to The Wild Center's youth climate project. Responses were coded into categories. One-third (33 percent) used resources (e.g., the Toolkit) created by TWC or received mentorship from TWC staff to start their own youth climate summit. One-quarter (23 percent) said they have sent students to a TWC or FLI youth climate summit. Several each said their organization participated in or collaborated on an educator retreat or a youth climate summit (17 percent each) (e.g., putting on a workshop during the retreat). A few (13 percent) described other relationships with TWC's youth climate work, such as partnering with youth leaders from TWC to create a climate-focused symposium or collaborating for the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP) delegations.

Used resources/mentorship to create a
Youth Summit33%Sent students to Youth Summit23%Participated/collaborated in Educator
Retreat as an Organization17%Participated/collaborated in Youth
Summit as an Organization17%Other13%

ONE-THIRD ARE CONNECTED TO TWC BECAUSE OF ITS YOUTH SUMMIT RESOURCES AND MENTORSHIP

Most Significant Change in Work

Respondents were asked an open-ended question about the most significant change (if any) to the way their organization approaches its climate action work as a result of being involved with TWC's youth climate work.

One-third (32 percent), including state government, non-profits, and museums, described a deepened understanding of the **value of youth involvement**, articulating why and how youth should be involved in their organization—they value youth's "unique and necessary" contribution to their organizations' climate work and one described their conscious effort to avoid "adultism"³ when collaborating with youth. As one New York State agency described, "We now consistently emphasize the importance of about engaging young people in contributing to and leading climate action work at the community and state level. Prior to working with The Wild Center, we did not appreciate the power of young people as catalysts in their communities."

Nearly one-quarter (22 percent) said their involvement with The Wild Center's youth climate work **expanded their network**, in two distinct ways. A few who have hosted their own youth climate summits said they feel more connected to a network of people organizing similar summits across the state. A few others (who are part of large or national organizations) more broadly described feeling more connected to a network of organizations or "colleagues" doing climate work.

Nearly one-quarter (21 percent), all schools, said the most significant change to their organization has been **supporting youth in action**—empowering youth to follow their interests and take the lead on projects. Several of these mentioned the action planning that takes place during summits as a goal-setting tool that guides their students and green teams throughout the year.

A smaller proportion (18 percent), including several schools and one museum, said their involvement in the teacher retreat prompted a **shift in their teaching practices**. For example, a few educators described finding new ways to integrate climate topics into their existing curriculum, and one Smithsonian educator described the experience as "life changing" for rethinking how to bring together climate educators at their organization.

Two (7 percent) said their organization has not experienced any significant change in their own.

³ Adultism refers to the perception that adults know better than youth and that adults' thoughts, opinions, and actions are more important than youths' thoughts, opinions, and actions. See for example: https://nuatc.org/articles/pdf/understanding_adultism.pdf

Effect on Organization

Respondents were asked to rate several statements about how their experience being involved with The Wild Center's youth climate work affected their organization on a scale from 1 (strongly disagree) to 7 (strongly agree). Respondents strongly agreed that being involved in the youth climate work helped their organizations pursue their missions and consider new ways they can work with youth (both had a mean rating of 6.4). They less strongly agreed that their involvement in the youth climate work with the Wild Center helped their organization consider news ways to work with rural communities (mean rating of 5.3).

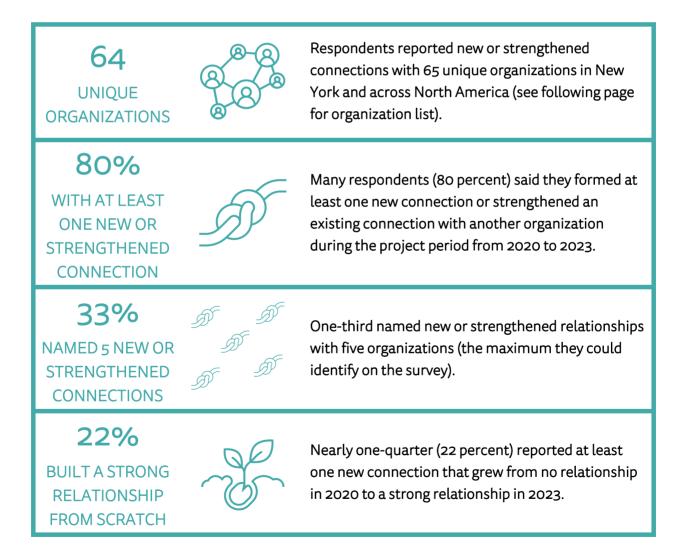
My organization's involvement in the youth climate project...

Help	Helped my organization pursue its mission or goals								
'	oed my organiz I youth	zation conside	er new ways it c	an work	6.	4			
	ped my organiz I rural commu		er new ways it c	an work 5.3					
1 Strongly disagree	2	3	4	5	6	7 Strongly agree			

New and Strengthened Connections

Respondents were asked to identify up to five organizations or agencies they formed new or strengthened connections with since 2020 as a result of being involved with The Wild Center's youth climate project. Then, they were asked to rate the nature of their relationship with each organization they listed in 2020 and 2023, to understand changes in the relationships between organizations over time (see Appendix for the rating rubric included in the survey). The results are summarized below.

Overall, most respondents reported sustaining, strengthening, or forming new connections with organizations as a result of being involved in TWC's youth climate project. The strength of these relationships varied, but generally were either sustained or grew positively over the period. A few noted a relationship that weakened over the course of the project period.



Five respondents reported new or stronger relationships with the FLI, and three with TWC, making them hubs of connection for this project (represented in dark teal in the top tier below). This is unsurprising, since these were the two main organizations leading the youth climate work. Two respondents each reported new or stronger relationships with the eight organizations listed in the second tier below (represented in medium teal below). And, one respondent each reported new or stronger relationships with one of the 54 organizations in the third tier below (represented in light teal below).

3+ REPORTED NEW/STRONGER RELATIONSHIPS WITH	FINGER LA	KES INSTITUTE	THE WI	LD CENTER
2 REPORTED NEW/STRONGER RELATIONSHIPS WITH	4H ADIRONDACK WATERSHED INSTITUTE	HOBART & WILLIAM SMITH COLLEGES NOAA CLIMATE OFFICE	PAUL SMITHS COLLEGE PHIPPS CONSERV AND BOTANICAL	
1 NEW/STRONGER RELATIONSHIPS WITH	ADIRONDACK RESEARCH CONSORTIUM ADK ACTION AMERICAN ELECTRIC POWER ANCA ASTC BATTELLE BERWICK SCHOOL IN MAINE BEYOND PLASTICS CANTON (NEW YORK) SUSTAINABILITY COMMITTEE CENTER FOR DEMOCRATIC AND ENVIRONMENTAL RIGHTS CLARKSON UNIVERSITY CLEAN GREEN BEAUTIFUL NORTH BAY CLIMATE GENERATION CLIMATE GENERATION	CLIMATE REALITY LEADERSHIP CORP COMMUNITY ENVIRONMENTAL LEGAL DEFENSE FUND COMPOST FOR GOOD CORNELL ORNITHOLOGY LAB DEC EARTH LAW CENTER ECOSUPERIOR ENVIRONMENTAL PROGRAMS GERACE RESEARCH CENTER IN THE BAHAMAS GLEN URQUHART SCHOOL (MA) GREEN COLUMBUS HOMER VILLAGE GOVERNMENT HONEOYE FALLS CONSERVATION BOARD IMPACT EARTH COMPOST ORGANIZATION ITHACA HIGH SCHOOL	JANE GOODALL INSTITUTE OF CANADA JUNCTION CREEK STEWARDSHIP COMMITTEE MASS AUDUBON MILLBROOK SCHOOL NATIONAL GREEN SCHOOLS SOCIETY NEW YORK CITY DEPARTMENT OF EDUCATION NORTH COUNTRY SCHOOL NURTURE NATURE CENTER NYS PARKS PLACE: SLR POLAR BEARS INTERNATIONAL ROCHESTER CLIMATE COALITION ROCHESTER MUSEUM & SCIENCE CENTER ROTARY CLUB SIERRA CLUB	SOIL AND WATER CONSERVATION IN SENECA COUNTY SOLID WASTE AUTHORITY OF CENTRAL OHIO SOUTHEAST MICHIGAN STEWARDSHIP COALITION (SEMIS) ST. MARKS SCHOOL (MA) THE HAUDENOSAUNEE ENVIRONMENTAL TASK FORCE THE MUSE KENORA THE OTHER SMITHSONIAN UNITS TOWN OF FRANKLIN, NY TREX RECYCLING COMPANY WEACT FOR ENVIRONMENTAL JUSTICE WHITE OAK NURSERY IN CANANDAIGUA YORK TOWN COUNCIL

04 Findings: Educator Interviews



Kera Collective conducted remote interviews with twenty educators who participated in The Wild Center's Climate Institute—nine during Fall 2022 and 11 during Summer 2023.

Educator Characteristics

Of the educators who participated in interviews:

- Educator type: More than one-half considered themselves informal science educators; they reported working at museums, science centers, and youth education non-profit organizations. Nearly one-half of the educators identified as teachers in a formal education setting.
- **Teaching audience**: All work with youth audiences in some form, although most informal educators said they work with general audiences inclusive of but not specific to youth. Many teachers in formal education settings teach high school or middle school.
- Subject focus: Most informal educators teach a variety of science-based topics (e.g., STEAM-based education, botany, sustainable resources, ecology, etc.), and one writes social studies curriculum that integrates environmental justice. Eight teachers focus on science subjects, and one teaches Spanish.
- Previous climate change-focused experiences: Most said they had not attended a climate change educator training program before, while three shared they had attended prior training programs either online (e.g., National Geographic, Shelburne Farms) or in-person (e.g., New York State Energy Research and Development Authority (NYSERDA), University of California Museum of Paleontology). However, most educators had attended a more general workshop or conference related to climate action (e.g., programs from the Great Lakes Ecosystem Education Exchange (GLEE), Smart Climate, New York Water Environment Association, etc.)
- **Experience**: Educators' experience ranges from 1 to 27 or more years, with a median of eight years.

Retreat Highlights

Educators were asked what they liked most about their experience at the Climate Institute. Overall, educators found their time at the Climate Institute enjoyable and relaxing. They were also grateful for the opportunity to participate in an experience with like-minded professionals, and excited to utilize what they learned at the retreat with their students.

- Building connections: One-half mentioned that they liked meeting and working with other educators. An educator praised their retreat colleagues, saying "This group of individuals are so smart and so ready to make change." While another said they really enjoyed "the sense of community" and "exchange of ideas" that comes from educators with many different experiences and backgrounds coming together to collaborate. As a result of the retreat, participants from two organizations (a 4-H program director and attendees from the Smithsonian Institution) are working together to develop a climate action program for youth in the Philadelphia area.
- Youth advocacy: One-third, all from the Summer 2023 retreat, shared that their favorite part about their experience was the emphasis on youth voices and hearing from youth climate advocates about the work they're currently doing in their communities.
- The content and format: A few expressed how much they enjoyed the retreat experience as a whole because it was "well-organized," included many activities (rather than lectures), and offered opportunities for building social connections. For example, one recalled the Climate Change Goals activity as a "great icebreaker" and the Mobile-Building activity as an example of a "really practical way to implement lessons in the classroom."
- **Retreat setting**: Two educators mentioned how beautiful the retreat location was and expressed their gratitude for the scheduled relaxation time because it gave them the opportunity to bond, unwind, or participate in fun, outdoor activities.

It was just so energizing and invigorating as a teacher. [The retreat] not only provided us with excellent workshops to gain very valuable information to help us in our education of climate change, but it also focused on making us feel like our well-being was just as important too.

Fostering Youth Climate Action

Educators were asked how the Climate Institute made them think differently about the ways they can support youth in taking climate actions in their communities. Educators said they feel confident in their ability to support youth and lead discussions about climate change in their communities in the following ways:

- Inspired by youth speakers: All of the educators shared how excited and hopeful they felt after seeing young people speak so passionately about climate activism at the youth panel during the retreat. Seeing youth speak to educators reiterated that youth will thrive when given opportunities to lead in climate action, and adults' main role is to support youth along the way.
- New communication approaches: Over one-half said they gained confidence in leading discussions about climate change with youth because of the retreat's resources, workshops, and activities. For example, one described learning new ways to use data and activities to introduce the concepts of climate change to youth without the "buzz words" that can cause resistance in rural, conservative communities where climate change is politicized. Others described how they plan to use "hope" and "solutions" as a framing device for conversations about climate change, rather than always driving on the science and data behind climate change.
- Adaptable for K 5: Two educators, both of whom teach elementary schoolers, were "shocked" to learn that other educators have had success in teaching younger students about climate change. One said, "hearing that it's even possible to incorporate that into elementary level [...] which is my like, area of interest, that was really, really impactful to me because our youngest students can still do the work and make a difference. It just has to be scaled down to their level."

I was a little skeptical about youth leadership. I would say, 'Okay, yeah, fine, but how much can they really do and are we somehow building up their expectations?' But, having actually talked with youth that had been involved in climate camps and seeing videos about the project where a group of kids were even advising a mayor in a town...I lost all my skepticism and realized that this taught in this way can be amazingly powerful.

Supporting Climate Action in Local Government

Educators were asked how the retreat made them think about the ways educators can support youth in working with local governments toward climate actions in their communities. Overall, educators feel better prepared to support students in engaging with local governments about climate action.

- Interested to start: One-third expressed an interest in showing youth ways they can advocate for the environment, contact lawmakers, write letters to their local councils, or work to have their city named as a 'green city.' For example, one who teaches in a school said they run an ecology club and had previously planted trees on school grounds. Now, after attending the retreat and learning about how to involve government in climate action, the educator plans to propose planting trees in local parks to their village board.
- Difficulty finding support: Nearly one-quarter described some hesitancy about encouraging youth to challenge local government on climate action because of climate change denial from government officials or a lack of financial support. For example, one informal educator who works at a New York state park shared that their job restricts them from teaching any audience how to petition the local government about climate action, since the state park cannot also provide financial support to communities to "actually implement any of the things we're suggesting."
- Great strategies, but too local: Two educators, from Pennsylvania and Utah, were glad to receive resources on how to support youth in working with local government and found them helpful, but felt that the information shared only applied to New York.
- Already supporting youth: One shared that they were already supporting young people engaging with political climate action, but they enjoyed the discussion about the Climate Smart Communities program and were interested in how young people in their community could advocate for a similar program.

We did that really cool hands-on activity with the yarn balls [showing] different ways to visually represent data...[made me think about who I can help youth realize] what's a way that you can use your talents to make an impact? A lot of my kids are very artistic, so it's inspiring them to use the skills they have.

Connecting Climate Change to Non-Science Subjects

Educators were asked if their experience at the Climate Institute made them think about ways they can connect climate change concepts to subjects outside of science. Most said that the retreat helped them figure out how to bring in additional subjects to support discussions on climate change.

- Art and fashion: Almost half suggested using creative subjects like art and fashion to draw connections with climate change; for example, using recycled materials to make art, discussing fast fashion's impact on climate change, or finding creative ways to visually represent climate change concepts (such as the yarn ball activity from the retreat).
- UN Goals Framework: Nearly one-quarter thought about the retreat activity focused on using the United Nations' Sustainable Development Goals to help youth connect climate change with an existing interest, because the UN's goals include a wide range of potential subjects. One referred to it as a "helpful" framework for "talking with kids who don't have an existing passion for climate action." Another said the activity could easily be connected to social studies, math, and English classes, explaining students could use it to "look at how temperatures are changing, how pH levels of different lakes are changing and adjusting."
- Math: Nearly one-quarter described examples of connecting math to climate change. One suggested using math to describe the economic impacts of climate change, and one said math was a "natural application" for climate studies because math is key to interpreting and visualizing climate data.
- Social studies: A few suggested using social studies to talk about climate justice—two observed that climate justice is a relatively new term that could be emphasized more in school curriculum.
- Not sure: One educator was unable to think of possible non-science subjects to help teach climate action.

I run a program that's for elementary school, middle school, and high school, and it's heavily based in creative arts that is themed within the guise of sustainability and climate change and sort of bigger ideas. So, I think being able to engage in some of the activities we did this summer that were more on the creative side was helpful in influencing the challenges that we [will] propose to schools this year.

Impact on Educator's Work

Educators were asked if there were any new ideas for supporting youth in climate action that they learned about at the retreat that they planned to apply to their work.

- Launching green clubs and summits: Most were interested in starting or collaborating on a green club or youth summit. Over one-third, expressed interest in developing green clubs and youth summits for their local communities, and a few had already launched a green club or summit in their community or school.
- Incorporating ideas into projects/curriculum: Almost two-thirds of educators shared that they had plans to or were currently working on integrating ideas from the retreat into their projects or curriculum. For example, one educator said the retreat taught them ways to give students a "structured" space to engage with environmental or climate action.
- Environmental Job Fair: One teacher has begun developing a job fair for their seventhgrade students based around jobs that contribute to climate action and sustainability. They hope to introduce the potential career ideas to their students that they can have in the back of their mind once they entire high school and become more serious about their future.
- Climate discussions and mental health: One said they are looking at "the mental health aspect" of learning about climate change, and providing youth with mental health professionals they can talk to when they feel overwhelmed from discussing climate change.

I think that the idea of presenting an issue and then having the [third or fourth grade] kids learn how to talk about it, how to give the facts about it...I think that's a really good skill. And then as they get to be fifth graders, [they'll be] quite good at advocating for change. So, I think it doesn't necessarily have to be a climate summit. It could be a smaller form of that.

Suggestions for Improving the Climate Institute

Educators were asked if there was anything they would change about their experience at the Climate Institute.

- Longer retreat: Nearly one-third, all of whom attended the Summer 2023 retreat, wanted more time for activities or experiences (e.g., developing action plans) as well as breaks between activities, so they suggested a longer retreat (perhaps an additional day). One said they would like time built in for retreat leaders and other educators to provide feedback on each other's action plans. Another experienced "burnout" from the number of activities and suggested the retreat allow attendees to have "a little bit more movement in the program" where they can choose between what activities they want to attend.
- **No suggestions:** One-quarter had no additional feedback to provide for improving the retreat.
- Maintaining connections: A few educators said they wished there was a way to stay connected and continue the momentum from the retreat, like an alumni network or message board where attendees could "continue to have access to each other" and "float [ideas] out to the group."
- More DEIA framing: One would have liked to see further, in-depth conversations about diversity, equity, inclusion, and accessibility throughout the retreat. They also wanted the retreat to advise educators on how to teach youth climate education through a DEIA lens.

Findings: Youth Diary Study



Overview

Kera Collective sent four different prompts to 10 youth participants about six weeks after the Youth Climate Leadership Retreat (YCLR) ended. Prompts were designed to capture big ideas and main takeaways that continue to resonate from their experiences in the YCLR.

Description of Participants

Of the diary study participants,

- Seven were first-time participants in 2023
- Two were Youth Leaders in for the YCLR in 2023, and participated as students in 2022
- One was a repeat participant who attended in 2022 and 2023



Takeaways from the YCLR

We asked participants to send us a picture or video of something that reminds them of an experience or idea they took away from the YCLR. Overall, responses demonstrate that participants took the themes and lessons from the retreat to heart and have taken actions since to both apply them in practice, and teach others about climate action.

- **Bringing it home**: Eight of the ten participants spoke about ways they have implemented an idea or lesson from the retreat at home, school, and/or in their communities. For example, two did water testing of different bodies of water in their area; another recalled how they learned "little things... make a big difference" and now collects and recycles cans from senior housing in their area.
- **Big Ideas:** Eight expressed ways that key ideas and concepts from the retreat continue to impact their thoughts and actions. These big ideas range from thinking "outside the box" when it comes to climate action, that the earth's resources "are not ours alone," and the importance of collaboration and teamwork both in tackling climate action as well as in life in general.
- Unique Experiences: Five referenced experiences unique to YCLR that continue to influence them. A few mentioned water testing, specific art projects, and field trips that have stuck with them after the retreat.
- **Community of peers:** Five noted the importance of both sharing and doing the work of climate action with their friends and classmates at home. They expressed how important sharing their experience at the retreat with others afterwards and collaborating with others has been for sustaining their own climate actions. One wrote that meeting so many "like-minded people" at the retreat "helped them realize how many people actually care and helped inspire me to do more."



Collection of cans from senior housing



A climate action necklace



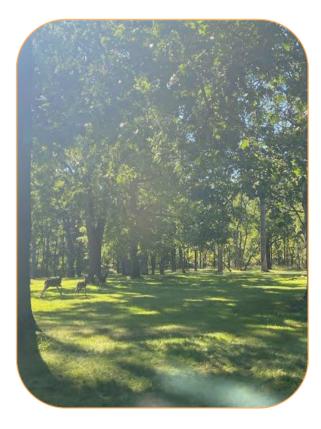
Water testing for school at a nearby lake

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"I picked this photo because every Tuesday my climate group that my brother and I lead host a meeting. This week's meeting was a big book swap, which was a chance to get rid of old books laying in your house so they could go to new homes. This whole meeting reminded me of how we talked at the retreat that **you don't have to be basic** when it comes to climate change. **Think outside the box**, it doesn't have to be a boring slide show on rising sea levels, it can be something like a book swap! This not only brings more people together to talk about climate change but it is also reusing books that would otherwise be tossed."

"Seeing deer crossing the road reminded me of the facets of climate justice we learned about, and how **the space we occupy and resources we use are not our alone.** Seeing wildlife endangered in areas they are native to because of human activity made me think of our consumption and how heavily we tread on earth that has lasted millions of years before us "



Everyday Connections to Climate Action

We next asked participants to take a picture and tell us about something from their everyday lives that they connect to climate action. Collectively the responses show a strong sense of personal responsibility and agency among the participants to do their part to resist climate change.

- **Personal Actions:** Eight participants spoke about individual actions they take to lessen their environmental impact. They spoke about regularly using reusable cups and utensils, taking public transit instead of a car, cultivating a home garden, and composting. Several noted that while these are small actions that may not make change on a global scale, they are still important nonetheless. Another stated that using a reusable coffee cup alleviated the "anxiety" they feel about how much plastic is used around the world daily.
- Equity and Access: Three responses noted that climate action is not equally accessible to everyone. Some messages touch on the disparities in access to certain climate actions, particularly for lower-income families. For example, one noted that not everyone has the ability to compost, and another similarly observed that recycling can be expensive.
- Starting conversations: One highlighted a personal action they take to reduce their waste while also prompting conversations about climate action with others. They shared a photo of their "lunch bandana," which they use instead of a paper napkin and noted when people ask about it, it becomes an opportunity to "inspire others to change too."



"This is a photo of my lunch bandana. I bring it to school with me every day along with my lunch instead of a paper napkin...My friends and classmates will ask me about the bandana or my reusable sandwich wrap and I get to explain to them how climate action is important and what they can do."

"Driving home with my dog and thinking about how universally healing nature is, how lucky I am to have access to its forests and skies, and how I wish everyone could currently, but how I have to **advocate to protect our resources**."



Connecting with Others from the YCLR

We asked participants to tell us about whether they had connected with anyone they met during the retreat, whether another participant, a speaker or mentor, or another connection. Together responses indicate that the program has facilitated lasting friendships and collaborations, enabled participants to stay connected through various means, and allowed for the sharing of experiences and interests related to climate and environmental issues.

- Continued Connections and Friendships: All participants mentioned ways they have stayed connected with people they met through YCLR, including fellow participants as well as counselors and mentors. These relationships range from birthday texts and commenting on social media posts to deeper, more sustained connections like letter writing and in-person meet ups. Seven noted particularly close friendships with one or two participants that they have maintained after the program.
- Supporting Each Other: Eight highlighted ways they have been able to both support others and receive support from their YCLR connections. For example, one developed a friendship with someone else from the same part of the world and appreciated being able to connect around "the disproportionate effect of climate change" on their region; additionally, a counselor was able to advise a student about applying to a school they are both interested in.
- Importance of Social Media: Four participants noted that they stay in touch with people through social media, including Snapchat and Instagram. These platforms enable participants to stay updated on each other's projects and provide a platform to share feedback and cheer each other on.

"On my birthday this month, almost half of all the participants in the retreat texted me and wished me a Happy Birthday. This shows how strong the connections were between the group." On Instagram, I posted a newsletter I co-founded, and [two YCLR participants] replied to my post with interest and kind congratulatory words!

"I participated in the YCLR as an intern from the Finger Lakes Institute...one connection that was special was with a high schooler from NYC with a heritage from Bangladesh. As someone who has roots in Sri Lanka, connecting with another who has South Asian roots gave us space to connect about the disproportionate effect of climate change."

Thinking About and Sharing Climate Stories

Finally, we asked participants to reflect on one way they have thought about their climate story in a new way or shared their climate story with others since the Retreat. Each participant shared a way they are thinking differently about climate action, highlighting the power of storytelling as a tool for advocacy, personal growth, and empowerment in the context of climate change.

- Storytelling as Advocacy: Seven participants shared how they've used their climate stories as a form of advocacy. By sharing their stories with family members, friends, teachers, and classmates they have encouraged others to think about their own climate stories and create solidarity. For example, one reflected that sharing their climate story with other students at their school inspired those students to join the environmental club.
- Storytelling for Hope: Four participants spoke about ways their stories have newly inspired them to think about climate action in more hopeful ways. For example, one noted that while there's "a lot of bad" regarding climate news, sharing positive stories with others helps them realize "it can get better." A few others reflected that although their stories have an element of tragedy or "doom," being able to share it helps them realize they aren't alone in this struggle.

When I was first writing my climate story, I was having a hard time coming up with something. I did end up finding a topic, and I was very proud of how it came out. Although I wasn't brave enough to tell it to everyone, two of the counselors were very kind to let me just tell them. They gave me great feedback! After leaving camp and hearing everyone's stories... I remember even more memories of how climate change has affected me. There is a lot of bad when it comes to the climate, but **seeing and sharing the good stories helps showing people that it can get better!**

I've thought about my climate story a lot since the retreat and not only the story that I shared but also other ways that climate change directly impacts my life and stories connected to those ideas. I talked to my friends and shared my story with them too! **They thought the idea of activism through storytelling was a really cool idea** and we talked about our shared climate experiences like this unusually warm fall and other things that were happening in our small town like the leaves changing color for the fall.

Appendices



Appendix A: Social Impact Framework

Empowering Rural Youth for Community Climate Resilience in New York State SOCIAL IMPACT FRAMEWORK

Rural communities in the Adirondacks and Finger Lakes Social Impact Statement: regions of New York build community climate resilience through an ever-growing constellation of resources, organizations, and passionate youth. What SOCIAL PROBLEM is the project uniquely What AUDIENCES does the How will the PROJECT INTERVENTION equipped to solve? address the social problem? project seeks to effect? Rural communities in the Rural New York communities face unique Create targeted programming for rural Adirondacks and Finger Lakes in challenges addressing climate change threats youth and educators to partner with New York State (through youth, because of their limited access to resources and local government and build capacity for educators, community/ municipal networks to support local climate resilience. New community climate resilience planning and action (emphasizing the NY State leaders) with an eye toward models are needed to connect rural communities with these essential resources and networks Climate Smart Community program). replicability in other places What PARTNERS will implement the project? HOBART AND WILLIAM SMITH COLL THF **Climate Smart** FINGER LAKES /ILD Communities INSTITUTE w1 What OUTPUTS will partners implement to achieve intended outcomes? 1. Advisory Committee Meetings 5. Student-led civic engagement activities 2. Youth Climate Summits 6. NYS Community of Practice/Convening 3 Teacher Climate Institutes 7. Youth/Local Govt Climate Resilience Workshop Module 8. Youth/Educator Guide to CSC Program 4. Youth Climate Leadership Retreats What are the SHORT-TERM OUTCOMES of the project on audiences? Rural organizations/institutions (e.g., schools/municipal leaders): Individuals (youth, educators, community leaders, DURING/IMMEDIATELY AFTER PROJECT ENDS advisors): Understand their communities' vulnerabilities to climate 1. 1. Increase awareness of the Climate Smart Communities change program and how to get involved with it in their 2 Understand their organization/institution's role in local climate community 2. Develop skills to work effectively toward climate action 3 Feel pride in their community for pursuing climate action with local government 4. Increase awareness of the network of organizations and 3. Foster local capacity for mentoring and sustaining youth resources available to support climate resilience in their climate action in the community over time community 4. Are empowered to take climate action in their community What are the MID-TERM OUTCOMES of the project on audiences? Individuals **Rural organizations/institutions** 1-3 YEARS AFTER PROJECT ENDS 1. Make intentional life choices that support climate 1. Incorporate equity decision-making frameworks into resilience in their community climate resilience planning 2. Sustain connections between youth and local government to support climate action in their community Prioritize climate resilience and action in their curriculum 2 and school practices 3. Feel their climate actions are having a meaningful result 3 Form new partnerships that support community resilience on their community Increase awareness of and apply for funding opportunities to implement resilience projects 4. 5. Feel confident in their ability to support youth in planning and executing climate action projects in the community What are the LONG-TERM OUTCOMES of the project on audiences?

Constellation of rural organizations/institutions 3+ YEARS AFTER PROJECT ENDS Serve as community anchors for youth-driven climate action planning 1.

- 2. Consider climate change to be a cross-disciplinary topic
- 3. Actively participate in youth-led community climate resilience initiatives
- 4. Are integrated to a network of organizations and institutions supporting climate resilience across New York

Appendix B: Instruments

Network Survey Instrument

The Wild Center and The Finger Lakes Institute want to understand more about your experience being involved with the NOAA-funded Empowering Rural Youth for Community Climate Resilience in New York State, their youth climate project.

We have invited you to complete this survey because you or your organization/agency were involved in some way in a Youth Climate Retreat or Summit, an Educator Retreat, or some other aspect of the project. You may have been very involved or just a little bit involved. Regardless, we want to hear from all of you.

Your responses this survey will be analyzed in aggregate with other organizations that have been involved in The Wild Center and The Finger Lakes Institute youth climate project to help us understand the impact of this project on organizations beyond our own. We will also use your responses to visualize the web of connections among organizations and agencies in our network of climate action.

Thank you for filling out this short survey.

Impact on Organization

1. What organization or affiliation (e.g., employer, agency, community association, club, school) connects you to the Wild Center or The Finger Lakes Institute and their work?

2. How long has your organization worked with The Wild Center?

- \bigcirc Have not worked with them
- 🔵 2 years or less
- 🔵 3-5 years
- 6-10 years
- Over 10 years

3. How long has your organization worked with The Finger Lakes Institute?

- O Have not worked with them
- 2 years or less
- 🔵 3-5 years
- 6-10 years
- Over 10 years

4. Briefly describe your organization's role in or connection to The Wild Center's youth climate project?

1

5. Briefly describe the most significant change (if any) to the way your organization approaches its climate action work as a result of being involved with this project?

6. One a scale from 1 (strongly disagree) to 7 (strongly agree), rate the following statements:

My organization's involvement in the youth climate project...

	Strongly disagree 1	2	3	Neither agree nor disagree 4	5	6	Strongly agree 7
Helped my organization pursue its mission or goals	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Helped my organization consider new ways it can work with youth	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Helped my organization consider new ways it can work with rural communities	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

Impact on Professional Network

We are interested in understanding any changes in your professional network of organizations working toward climate action and resilience since getting involved in this project.

7. In the blanks below, list <u>up to five organizations/agencies</u> that your organization built new connections with or strengthened its connections with since 2020 (as a result of being involved with The Wild Center's youth climate project). If you list fewer than 5 organizations, please write N/A as the response for those questions.

On the following page, we will ask you one more question about each of the organizations you list below.

Organization 1

Organization 2

Organization 3

Organization 4

Organization 5

Impact on Professional Network - Continued

8. The organizations you named on the previous page are listed below. For each organization, select the number that describes the nature of your relationship in 2020 and 2023 on the following scale:

0 – No Relationship	1 – Emerging Relationship	2 – Developing Relationship	3 – Strong Relationship
Did not interact with	Minimal or superficial	Developing or existing	Deep and meaningful
this organization in	interactions. May be a new	relationship. Moderate	communication,
my climate action	relationship or existing	communication,	collaboration, sharing of
and resilience work.	(but weak) relationship.	collaboration, sharing of	resources, or other
		resources, or other	interactions.
		interactions.	

<u>Organization 1:</u> Below, select the rating that best describes your relationship with $\{\{Q7\}\}\$ in 2020 and 2023.

	0-No Relationship	1-Weak Relationship	2-Moderate Relationship	3-Strong Relationship
2020	\bigcirc	\bigcirc	\bigcirc	\bigcirc
2023	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Add explanation if desir	red.			

<u>Organization 2:</u> Below, select the rating that best describes your relationship with $\{ \{ Q8 \} \}$ in 2020 and 2023.

	0-No Relationship	1-Weak Relationship	2-Moderate Relationship	3-Strong Relationship
2020	\bigcirc	\bigcirc	\bigcirc	\bigcirc
2023	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Add explanation if	desired.			

<u>Organization 3:</u> Below, select the rating that best describes your relationship with $\{\{Q9\}\}\$ in 2020 and 2023.

	0-No Relationship	1-Weak Relationship	2-Moderate Relationship	3-Strong Relationship
2020	\bigcirc	\bigcirc	\bigcirc	\bigcirc
2023	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Add explanation if desi	red.			

<u>Organization 4</u>: Below, select the rating that best describes your relationship with $\{\{Q10\}\}$ in 2020 and 2023.

	0-No Relationship	1-Weak Relationship	2-Moderate Relationship	3-Strong Relationship
2020	\bigcirc	\bigcirc	\bigcirc	\bigcirc
2023	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Add explanation if desir	ed.			

<u>**Organization 5:**</u> Below, select the rating that best describes your relationship with {{ $Q12 }$ } in 2020 and 2023.

	0-No Relationship	1-Weak Relationship	2-Moderate Relationship	3-Strong Relationship
2020	\bigcirc	\bigcirc	\bigcirc	\bigcirc
2023	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Add explanation if desir	red.			

Educator Interview Guide

Hi, thanks for taking the time to talk to me today. Before we get started, I wanted to tell you a little more about our study and explain how we will use the information from this telephone interview. We are talking to participants who attended a Climate Change Educator Retreat put together by The Wild Center and The Finger Lakes Institute to gather feedback about their experiences to improve the program in the future. Your responses will remain anonymous and your participation is voluntary. We can stop the interview at any time, and you can choose to skip any question if you do not want to answer it. I'd also like to audio-record our conversation so that I have an accurate record of what we discussed, but again, your responses will remain anonymous. Is that okay? [If yes, audio record. If no, type notes during conversation].

Do you have any questions before we start?

First, I'd like to get a little bit of background information from you.

- 1. Where do you teach? [probe about audience/grade]
- 2. What subjects do you teach?
- 3. How long have you been teaching?
- 4. Have you ever attended a climate change educator training in the past? If yes, when and where?
- 5. Are there any organizations or activities related to the environment or climate change you were involved with before attending the Climate Change Educator Retreat?
- 6. Ok, now we are going to move on to talking about your experience at the Climate Retreat.
- 7. What did you like most about your experience at the Climate Retreat? Why did you like that the most?
- 8. How, if at all, did your experience at the Climate Retreat make you think differently about the ways educators can support youth in taking climate actions in their communities? Can you provide an example? What part of the Retreat brought that to mind?

[if local government not yet mentioned] How, if at all, did your experience at the Climate Retreat make you think about the ways educators can support youth in working with local government to support climate actions in their communities?

- 9. Are there any new ideas for supporting youth in climate action you learned about at the retreat that you plan to apply in your work?
- 10. How, if at all, did your experience at the Climate Retreat make you think about ways you can connect climate change concepts to subjects outside of science?
- 11. What, if anything, would you change about your experience in the Climate Retreat? Why is that?
- 12. Is there anything I didn't ask you about that you'd like to share about the Climate Retreat?

Thank you for your time! What is the best email to send your gift card to?

Diary Study Prompts

- 1. This week, look for something that reminds you of an experience or idea you took away from the Youth Climate Leadership Retreat. Snap a picture or video and tell us why you chose it.
- 2. This week, take a picture of something from your everyday life that you connect to climate action and tell us why you chose it.
- 3. This month, did you connect with anyone you met during the Youth Leadership Retreat (e.g., another participant, a speaker or mentor, or another connection)? If you did, tell us about how and why you connected.
- 4. Tell us about one way you've thought about your climate story in a new way or shared your climate story with others since the Youth Climate Leadership Retreat.

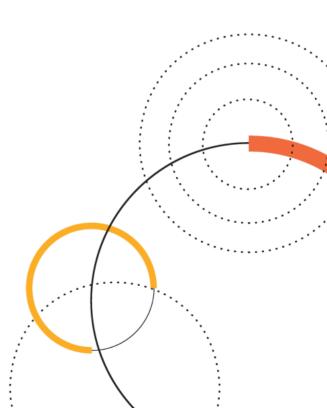
With gratitude, Kera Collective thanks The Wild Center for the opportunity to be a part of the Empowering Rural Youth project.

Our doors are always open—don't hesitate to reach out with anything that's on your mind!



Kera Collective explores, measures, and furthers the meaning-making that occurs between museums and people.

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