

# THE RISE CHALLENGE

2021/2022 REPORT



# RISE

## Resilience. Innovation. Sustainability. Environment.

The RISE Challenge has grown considerably. It began as a pilot project called the Rocky Mountain Environmental Challenge, in Fort Collins, CO. It is now a national program, operating in three states. As the RISE Challenge has expanded, its impact on young people and their communities has increased as well.

Many say 2021/2022 was the most difficult school year of the pandemic. Despite that, RISE Challenge Colorado saw sustained growth in both interest and participation. It expanded its reach across the state and built new partnerships. Students continued to submit ideas for natural hazard actions in their community. In fact, both the number and the quality of the student-led project proposals increased.

Through these projects, students learned how to increase resilience to natural hazards where they live. They made their communities stronger, safer, and more prepared to deal with those hazards. We are pleased with the dedication of our staff and partners, as shown in the results of this year's program. The Challenge is a partnership among FEMA, Resilience Action Partners, Earth Force, the ASFPM Foundation, and local environmental nonprofits.

### Educator Quote

“So proud of those students looking out for the well-being of their school and their entire town of Seeley Lake! Sense of community is something that has been lacking in our culture these past several years. RISE Challenge is bringing thoughtfulness and selflessness back into our children's hearts and minds.”



207

Number of youth building community resilience through RISE

200

Number of people attending RISE Summits

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I feel like our solution was an idea worth sharing and putting into action because it can really make a difference for our school and community.

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“

RISE Challenge was fun at times and hard at others. You have to use a lot of creativity so multiple times I got some blocks but I managed to get through it. In the end it was very rewarding to see what half a year's progress came out to be.

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35

Number of student-led natural hazard community resilience projects

309,000+

Impressions from RISE-related social & print media



# 2021/22 RISE Challenge Colorado

The section below is an overview of this program's successes. It outlines the projects designed and carried out by school groups in the RISE Challenge Colorado.

	School Group	Issue	Proposed Solution
1st	Estes Park Middle School: Plan, Prepare and Preserve: Wildfire Readiness	Wildfire	Create awareness about wildfire evacuation in Estes Park. Students experienced evacuating during the Cameron Peak & East Troublesome fire in 2020. They created 'Go Bags' to give to community members. The bags have with information and supplies they would need if the town is evacuated again.
2nd	St. Vrain Valley Schools Innovation Center: Northern Redbelly Dace Conservation	Flood & Wildfire	Restore the Northern Redbelly Dace fish species in the St. Vrain River. A flood in 2013 destroyed habitat and reduced the population. The class collected water quality data and restored habitat to increase the population. They strengthened the ecosystem to build its resilience to future flooding. Wildfires upstream may affect the water quality and habitat for this species.
3rd	St. Vrain Valley Schools Innovation Center: Lasting Impacts of 2013 Flood Event	Flood	Strengthen native ecosystems and reintroduce endangered native indicator plant/tree species. The 2013 flood event depleted the diversity of plants along the banks of the St. Vrain River. Increasing the biodiversity along the banks will result in beneficial ecological involvement and creative resistance to future floods.
4th	Compass Community Collaborative School: NH Awareness Board for the Homeless	All Natural Hazards	Provide resources and information to the unhoused neighbors of Fort Collins. Create a weather station at a local church. Provide information on where to seek shelter during natural hazard events like extreme heat and cold.
5th	Compass Community Collaborative School: Informational Sign on Cheatgrass	Wildfire	Create an informational sign for the Environmental Learning Center natural area. Show the negative impacts of cheatgrass and how it contributes to wildfire risk.

6th	Compass Community Collaborative School: Rain Garden	Storm Water & Flooding	Build a rain garden in the community. It will hold water during large precipitation events and reduce stormwater runoff pollution.
7th	Compass Community Collaborative: Erosion Control	Flooding	Revegetate a section of the Poudre River that is used heavily by recreators. Stabilize and revegetate the river banks to reduce the impacts of future flooding.
8th	Compass Community Collaborative School: Wildfire Readiness	Wildfire	Design a lesson plan for middle school students. Teach about wildfire recovery, the dangers of wildfire, how wildfires help ecosystems, and how wildfires happen. Help students know what they can do and create an evacuation plan.
9th	North Fork High School: Every Drop Counts	Drought	Model the active water conservation of low-flow shower heads. Share it with the Hotchkiss, CO community. Demonstrate that using them to replace standard flow shower heads will save both water and money.
10th	John F. Kennedy High School	Wildfire	In response to the Marshall Fire, students wanted to spread awareness about prevention. They created an infographic to post on school communication platforms.

## The Summit

The 2022 Colorado RISE Challenge Summit was held on Thursday, May 12, from 12 to 2:30 p.m. All finalist groups were able to attend and present during the virtual summit. The Summit's 75 attendees included staff, students, educators, judges and visitors.

These Earth Force staff ran and judged the "live" student presentations: Hayley Valley, Alyssa McConkey, Sarah Pacheco, Sarah Jennings, Rai Yurivilca, and Taylor Ruffin. Vince Meldrum, Earth Force CEO, gave opening remarks. These were followed by the student presentations and judges' Q&A. The student groups presented in two online breakout rooms. These were facilitated by Earth Force staff and a judging panel.

After the presentations, participants returned to the main room. Abigail from Estes Park, CO, was the student guest speaker. She had participated in the RISE Challenge in 2021. As student scores were tabulated, we played a natural hazards trivia game. A brief reflection conversation highlighted the students' work. The event culminated in the Awards Ceremony, at which this year's top 10 winners were announced. In follow-up, Summit staff asked educators and students to complete an anonymous online survey.

# Stakeholders

A diverse group of stakeholders supports the RISE Challenge. Without them, the educational experience would not be possible. The people who gave their time to the RISE Challenge Colorado are listed below. This includes those who judged the written materials and presentations.

- Greg Guibert, Argonne National Labs
- Brad Anderson, ASFPM Foundation
- Kim Scott, Boulder County Emergency Management
- Mica Ceda-Maguro, Chatfield State Park
- Kevin Koryto, City of Boulder Stormwater Department
- Marsha Hilmes-Robinson, City of Fort Collins Floodplain Management
- Chief Martinez, City of Sheridan Police Department
- Randy Mourning, City of Sheridan Public Works
- Danielle Ardrey, CO Forest Service
- Lesley Smith, University of Colorado Board of Regents
- Emily Hertz, Denver Audubon
- Donny Roush, Denver Public Works
- Wendy Dew, EPA
- Randy Hunt, Estes Park Planning Department
- Janine Dawley, Estes Valley Board of Realtors
- Jen Kretser, The Wild Center
- Ivonne Morales, Poudre Learning Center
- Veronica Campion, CSU student
- Kim Lopez, Friend of Front Range Wildlife Refuges
- Dr. Mikki McComb-Kobza, Oceans First Institute
- Mac Kobza, Boulder County Open Space
- Felica Evans, STEM Launch
- Michelle White, Mountain View Fire and Rescue
- David Wolf, Estes Valley Fire Protection District
- Wilynn Formeller, Estes Valley Watershed Coalition
- Katheryn Turner, FEMA EHP
- Matt Buddie, FEMA Region 8
- Geoff Elliot, Glen Haven Area Volunteer Fire Department
- Chief Olson, Grand Fire Protection District No 1
- Brian Faith, Grand Lake Fire Rescue
- Katya Schloesser, HEART Force
- Doug Fritz, Hotchkiss Fire District
- Carrie Martin-Haley, Institute for Environmental Solutions
- Jane Hamburger, League of Women Voters - Larimer County
- Allison Andrews, Michael Baker/ASFPM Foundation Outreach & Education
- Bryan Kohlenberg, Mile High Flood District
- Jeremy May, Mountain Studies Institute
- Jennifer Tobin, Natural Hazards Center, University of Colorado, Boulder
- Carrie McDougall, Christopher Nelson, Kari Bowen, Lisa Kim, and Maggie Allen, NOAA
- Lindsey Lucia, Northern Water
- Banan Garada, FEMA National Youth Preparedness Council
- Koren Nydick, Rocky Mountain National Park
- Pat Sandos, Sheridan School District
- Samantha Hicks & Sarah Fontana, South Louisiana Wetlands Discovery Center

## Support Sessions

March 24, 2022: Implementing Projects (Yolanda Pender-Bey)

March 30, 2022: RISE Educator Support Session (Taylor Ruffin)

April 27, 2022: RISE Educator Support Session (Taylor Ruffin)

April 28, 2022: Asking for Change (Chad DeVoe)

+ three webinars on specific CO natural hazards

“ I was impressed with the session and impressed with the participation from Earth Force staff, who offered excellent suggestions and links to help us provide the best direction for student challenges.

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# 2021/22 RISE Challenge Big Sky

The section below is an overview of this program's successes. It outlines the projects designed and carried out by school groups in the RISE Challenge Big Sky Program. The program was managed locally by Brightways Learning.

## Top 5 Proposals

	Project	Issue	Proposed Solutions
1st	Seeley Swan High: Brush Clearing	Wildfires	Students and volunteers help clear brush near the school, to reduce fire risks. They will clean up the "ladder fuels," which are the lower living and dead brush. Those allow fire to travel into the canopies of the taller trees, where it becomes uncontrollable.
2nd	Frenchtown Elementary School: Family Emergency Kits	Winter storms and wildlife (natural hazards in general)	Help families build an emergency kit for their cars and houses, to grab in case of an emergency.
3rd	Aspire Middle and High School: PoopBusters!	Stormwater pollution due to floods	Organize a community clean-up. Create a sign to use in high-risk areas about the impact of dog poop on waterways. Already implementing.
4th	Ronan Middle School: Wildfire Reduction Kits	Wildfires	Create wildfire reduction kits for their community.
5th	Two Eagle River School: Wildfire Awareness Pamphlet	Wildfires	Create pamphlets and flyers to create awareness about the effect of combustible non-native plants.

# The Summit

The 2022 RISE Challenge Big Sky Summit was held on April 28, from 9:45 a.m. to 1:45 p.m. It was at the Best Western Grant Creek Inn in Missoula, Montana. Staff from Brightways Learning, the Watershed Education Network, and Earth Force supported it. All finalist groups were there to present at this in-person event!

The event facilitators used engaging practices. They planned for music, strategies for people to connect with each other before presentations, and interactive activities while the judges deliberated. Vince kicked things off with a keynote speech. Each group had 25 minutes to present to the audience/judges. This was followed by a Q&A with the judging panel. Judges used prepared scoring sheets for each project. They had the scoring rubric on hand for reference. Bag lunches were provided between presentations. After the Awards Ceremony, the event was wrapped up with a brief closing activity. Summit follow-up included an anonymous Feedback Survey to help the Big Sky team plan for next year. In total, 68 staff, students, judges, and visitors attended.

## Stakeholders

A diverse group of stakeholders supports the RISE Challenge. Without them, the educational experience would not be possible. The people who worked directly with Brightways Learning are listed below. Student groups reported that they also engaged local/tribal Elders and other experts during their research and planning. Some of them are also listed below.

- Sara Hartley, State Hazard Mitigation Officer, Montana Disaster and Emergency Services
- Marie Noland, Program Specialist, City of Missoula Storm Water Utility
- Traci Sears, NFIP/CAP Coordinator, Montana Department of Natural Resources
- Todd Seib, Environmental Health Specialist, Missoula Valley Water Quality District
- Daniel Spencer, Professor of Environmental Studies, University of Montana
- Stephanie Hummel, Education Coordinator, Flathead Biological Station
- Laura Lundquist, Environmental Reporter, Missoula Current
- Cara Nelson, Professor of Restoration Ecology, University of Montana
- Paul Rosenberg, Supervisor, Bitterroot Conservation District



# 2021/22 RISE Challenge Illinois

This section is an overview of this program's successes. It outlines the projects designed and carried out by school groups in the RISE Challenge Illinois. The program was managed locally by the Environmental Education Association of Illinois.

## Top 5 Proposals

	Project & Educators	Issue	Proposed Solutions
1st	"Flood Mitigation on the Big Muddy," Murphysboro Middle School Eco-Action Club - Team Lead: Mrs. Bartnick and Mrs. Swafford	Flooding	Plant oak trees around the river banks to reduce erosion.
2nd	"Flooding on the Prairie Path - Kishwaukee River Basin Native Wetland Detention Area" Sycamore Middle School - Team Lead: Mrs. Gudewicz and Mrs. Doty	Flooding on the sidewalk and prairie paths near the school	Plant native wetland prairie plants to reduce flooding, because they have deep roots.
3rd	"Wading Wildlife" Douglas Hart Nature Center Care Club - Team Lead: Mrs. Keegan and Mrs. Tariq	Flooding in the Center	Establish a rain garden in the front yard of the center. Offer educational programs about using a rain garden.
4th	"Rising to the Challenge By Improving the Environment with our TedX Talk" Wolcott College Prep. - Team Lead: Mr. Bae	Flooding and Natural hazards	Create a TedX event for youth to express their ideas to larger audiences. Create awareness of the changes needed to make the community stronger and safer.
5th	"Waste on the Prairie - Kishwaukee River Basin Stormwater Protection and Education" Sycamore Middle School - Team Lead: Mrs. Gudewicz and Mrs. Dot	Flooding in the school (waste is picked up by water and goes into the river)	Educate the community on using salt to melt the snow, and waste management, to protect the watershed. Put garbage and dog waste bins along the path to improve during floods.

## The Summit

The Illinois RISE Challenge 2022 Student Summit was on May 4, from 12:00 to 2:00 p.m. Five teams of students and their educator participated in the virtual event. A student speaker, Banan Garada, shared about her RISE experience from 2021 and her work as a student with FEMA. After this opening, students gave their presentations. The summit judges and first group of students went into a breakout room for a live Q&A session. Three judges and the EEAI Executive Director each had the chance to ask the students one question. While each team was with the judges, the other four teams and summit attendees were in the main Zoom room. They could view the student video presentations, answer trivia questions, and share feedback about the program. When all five teams had met with the judges, everyone moved to the main Zoom room. Vince Meldrum, Earth Force CEO, shared stories and insights on the impact of student-led environmental action projects. The summit ended with an announcement of the program winners.

## Stakeholders

A diverse group of stakeholders supports the RISE Challenge. Without them, the educational experience would not be possible. These people play a variety of roles, from advising and visiting student groups to judging and promoting the event. Those involved in the RISE Challenge Illinois are listed below:

- Susie Grana Ingram, Education Superintendent, Peoria Park District
- Brian Chaille, Hydrologic/Hydraulic Engineer; IL State Water Survey; University of Illinois - Urbana-Champaign, and ASFPM member
- Christine Meissner, Community Planning and Development Specialist; US Department of Planning and Urban Development
- Peggy Doty, University of IL Extension, Education Director
- Jennifer Tariq, Executive Director, Douglas Hart Foundation
- Sarah Halle, Resilience Action Partners
- Cadence Peterson, FEMA

# Resilience in Action



How did it feel to address this natural hazard issue in your community?

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“Overwhelming, exciting and empowering to know that kids can be a part of the change, too.”

“Tackling this issue has been a challenge but it feels great helping people in our community.”

“Feels good to know you’re helping out other people in your community.”

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