

Seeing the Forest for the Trees

Climate Change Agents Retreat 2024



Sponsored By

Nevada County Climate Action Now (NC-CAN)
Full-Circle Learning (FCL)
The Rose Foundation
Sierra Foothills Audubon
Nevada County Department of Fish and Wildlife
Nevada City Retreats



Photos by Anonymous Students and Teachers

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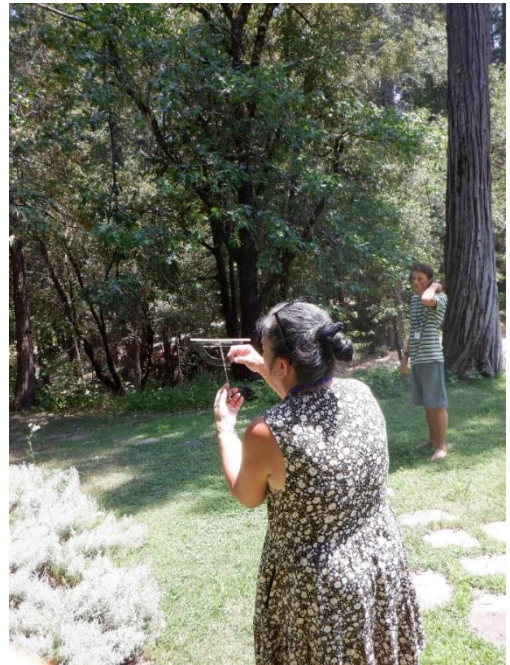
A growing percentage of people choose to live in the Wildland-Urban Interface (WUI), increasing the complexity of land management and fire policy. How can we protect the carbon sink represented by our forests while promoting fire resilience? The Climate Change Agents set out to answer this question in the summer of 2024. At least a dozen integrated actions guided their search. They:

1. Conducted research in the field and shared their knowledge in an exhibit for the public, also inspiring families with a live dance performance and informative videos.
2. Created a code of ethics and reinforced it with team building actions related to trees' resiliency and sequestration capacity.
3. Practiced the habit-of-heart Love, nominating one another for service based on acts that showed love of nature or loving kindness to peers.
4. Counted carbon in onsite trees, using clinometers to calculate dry or green weight.
5. Estimated the total value of the carbon sink on Hirschman Pond Trail, counting three tree species and calculating the quarts of carbon each species sequesters.
6. Compared several species suitable for restoration plantings, based on a tree's fire resilience, site conditions, and capacity to store carbon over a lifetime.
7. Monitored qualitative and quantitative indicators of tree health on a restoration site planted with blue oak and gray pine; researched ways to maximize the trees' survival rate and wrote policy recommendations for environmental agencies.
8. Compared human resilience and tree resilience at a former mine on the restoration site, built with the labor of enslaved people who later became local community leaders.
9. Met with representatives of Sierra Streams and Yuba Libre/Nature Conservancy to jointly plan a larger tree planting that will occur in the coming months.
10. Explored bird habitat health and called not one but *three* owls, with the help of expert Audubon birders.
11. Honored professional collaborators--arborists, artists, and environmental educators--with art gifts depicting species that thrive through pyrodiversity.
12. Practiced shopping and cooking with consideration for eco-friendly packaging.
13. Shared research and relevant practices not only locally but also with the wisdom exchange partners in Zambia who had inspired the idea that two priorities can share equal weight. The Zambian students had selected species based on both sequestration and food security, planting a fruit tree in every yard and teaching residents to care for their trees.

Photo Highlights

Documenting Data

Measuring trees with a clinometer, teaming up for the shopping challenge, measuring trees' proximity to competitive species, and honoring an owler with an owl: These photos represent just a few of many actions taken at the retreat.

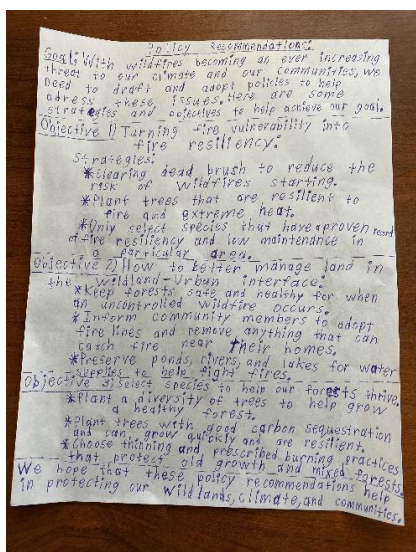




Monitoring a Wildfire Restoration Site

Craig Rohrsen (left) and Randall Frizzel (next to him) completed months of preparation on Jones Fire restoration site before welcoming the Climate Change Agents to monitor the health of the trees planted five months earlier.

Each of three Change Agent groups—the Vanguarders, the Visionaries, and the Ground Breakers—evaluated five to six new trees. They observed the color and condition of the leaves. They used calipers and measuring tapes to evaluate growth and distance from rock outcroppings and competitive species. They checked for pests and created moats of bare dirt between the tree and the mulch, to reduce the threat of rodents. They discussed the benefits of rubber tubing over chicken wire for protecting the new trees. (The tubes can burrow down into the ground to ward off voles and gophers. The tubes also create condensation to irrigate the trees overnight.)



Back at camp, the change agents shared their assessments and discussed wildfire restoration policy recommendations to send to local environmental agencies.





Pre-Camp Action

Finn and Asa Hawkins represented the Climate Change Agents in the July 4th parade in Nevada City. They carried their group's banner and walked amid representatives of multiple organizations designated as Climate Champions.

Defining Resilience

At the wildfire restoration site, the Change Agents viewed the adaptability of the habitat based on responses to past fires. They observed the need for carbon sequestration and fire resilience, comparing it with the resilience of the 400 enslaved people once brought to work for their freedom at the Kentucky Ridge Mine, which sits on the property. One of those individuals, Isaac Sanks, became the first Black American to hold public office.





Gifts for Partners in Planting and Gifts for the Forest

Erin Andrew and Derek Hitchcock (second and third from left) received honors from Climate Change Agents. The gifts below were awarded by artists Aurora and Taj to Rene Sprattling and Randall Frizzell.





Counting Carbon on a Trail

On the last day, the Climate Change Agents practiced the scientific method as they counted three tree species and estimated the quarts and gallons of carbon sequestered by just those trees over an 80-year period. The groups set out to count the number of oaks, Ponderosa Pines, and waterfront alders. Based on their mathematical equations, they surmised that this carbon sink sequesters 372,985 gallons of carbon.





Inspiring Others through the Arts



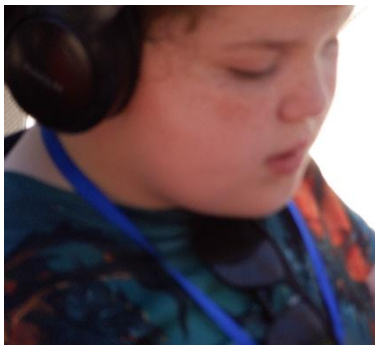


Collaborating with Fellow Change Agents, Near and Far





Talking Circle Memories and Stories





**Walking the Path
of a
Change Agent**





2024 Climate Change Agents
(Counselors/Team Leaders (C) and Scholarship Students)

Left to right, above: Jessica Rivenes (C), Sophia Alonso, Alliyah Noxon, Aurora Cummings, Logan House (C), Erik Connor, Gabe Eckl, Asa Hawkins, Finn Hawkins, Taj Daunch-Greenberg (C)



**Thank You to the Volunteers
For Participating in the Change!**

Lily Ning

Beth Dekker

Rene Sprattling

Laksmi Greenberg

Randall Frazzell

Craig and Laura Rohrsen

Erin Andrew

Derek Hitchcock

Rudy Darling

Don Rivenes

Susie Steinbarth

Chris Newsom

Scot Corrie

David Langness

JB Eckl

and

The Many NC-CAN Members and Parents Who Provided the Final Potluck!

Much Appreciation

From Teresa Langness

NC-CAN Education Chair/Full-Circle Learning Board President