

Watershed STEM Spotlight

Stanislaus County Office of Education, California

Partnership with 21st Century Community Learning Center Sites

For this project, SCOE worked directly with eight [21st Century Community Learning Center](#) (21st CCLC) partners. They initiated their partnerships by hosting an in-person professional development training for the site coordinators from all eight sites. During this training, SCOE staff asked site coordinators what support their educators would need to implement the Watershed STEM activities. SCOE staff used

this feedback to conduct subsequent professional development with 21st CCLC site educators and to train them to implement environmental education activities at their sites. In addition to partnering with 21st CCLC sites, SCOE partnered with the Sacramento County Office of Education and external organizations such as the Tuolumne River Trust to help facilitate environmentally focused field experiences.

About Stanislaus County Office of Education (SCOE)

The [Stanislaus County Office of Education \(SCOE\)](#) serves as the connector between 25 school districts in Stanislaus County and the California Department of Education. In its role, SCOE does not provide programming directly; instead, its staff advocates for education issues, provides professional development for teachers, and acts as a resource for local educators. With its professional development focus, SCOE was uniquely positioned to ensure their project's sustainability, especially given its relationships with local partners with which they could connect for environmental education programming.

- **Stanislaus County, Modesto, California**
- **Stanislaus River Watershed**
- **Nearly 200 elementary and middle school youth**
- **Afterschool and field trip programs**
- **Eight 21st CCLC sites**





Participants learn about nature journaling in the field. Photo: Jose Marquez

What Was the Project?

SCOE's project focused on investigating the cause of decreasing Chinook salmon populations in the Stanislaus River Watershed. SCOE decided to focus on examining the decreasing fish population as it was a concrete aspect of the local watershed that youth could understand. During the program, youth raised trout in classroom aquariums before releasing them at the local reservoir. (Youth raised trout instead of salmon because there were no salmon eggs available.) Additionally, 21st CCLC site educators led hands-on activities during which youth learned about the salmon life cycle and how energy moves through a food web. For field trips, youth were bussed to local parks with adjacent rivers (e.g., Jacob Myers Park). Field trips occurred during the school day to allow enough time for field-based activities.

Unlike many other Watershed STEM grantee projects, 21st CCLC facilitators took the lead on implementing after-school programs. During field trips, SCOE staff and others from external partners, such as

the Tuolumne River Trust, facilitated a bioblitz, macroinvertebrate observations, and water quality testing across three stations. Programs culminated in a virtual showcase where youth across the sites shared actions that individuals can take to support the Chinook salmon population.

“The other by-product is the relationship with community partners. So then now, we’re more likely to work together because we know what our assets are . . . That’s been really beneficial. It’s become a catalyst for other work.”

–Jose Marquez, Project Coordinator,
Stanislaus County Office of Education

Key Successes

This program allowed SCOE to engage nearly 200 youth in outdoor environmental education programming. Field-based experiences coupled with the site-based activities helped youth gain a better understanding of their local watershed. According to site coordinators, youth retained information learned from this program into the following year. 21st CCLC site coordinators were pleased with the program and wanted to continue implementing watershed activities with youth. SCOE's presence in the community and existing relationships with schools and teachers helped make it easier to plan with 21st CCLC staff, and SCOE's background in professional learning made it more seamless to implement trainings for educators.

Lessons Learned

Even though SCOE had an existing relationship with schools, SCOE staff were newer to working with out-of-school time educators and staff. Through this

program, they learned the need to communicate early and often with 21st CCLC educators. SCOE streamlined communication by creating a shared online space with information about activities and the project that all educators could access. SCOE also learned that relationship building takes time, as does training educators so they can implement the program on their own with less support from SCOE. SCOE also built stronger relationships with community partners, which has set the stage for future work.

Beyond the Grant

21st CCLC site coordinators and SCOE are continuing to work together to implement the program for a second time during the 2022-2023 school year. They have added 8 sites and are now conducting the program with sixteen 21st CCLC sites. This year, SCOE aims to hand off the program to the 21st CCLC sites so they can continue program implementation into a third year on their own.



Participants conduct research for Chinook salmon populations in the Stanislaus River Watershed. Photo: Jose Marquez

This project was funded under the Watershed STEM Education Partnership Grants program, a collaboration between NOAA, NAAEE, and the U.S. Department of Education to support enriching after-school programming at Nita M. Lowey 21st Century Community Learning Centers around the country. Learn more at: naaee.org/programs/eeblue/21CCLC.