

RESTORATION



COLLABORATION

RESEARCH
AND EDUCATION



SIERRA
Streams
INSTITUTE

Monitoring/Assessments



Train citizen scientists

Long-term water quality, biological, physical habitat data.

Use data for broader understanding of impacts from climate change, improvements from restoration, management decisions.

Climate change model – future impacts



Biological Monitoring: Benthic Macroinvertebrates as Health Indicators



- Utilizes citizen science data to get a direct measure of integrity of the stream's ecological condition
- Indices facilitate communication to agencies and the public

Restoration



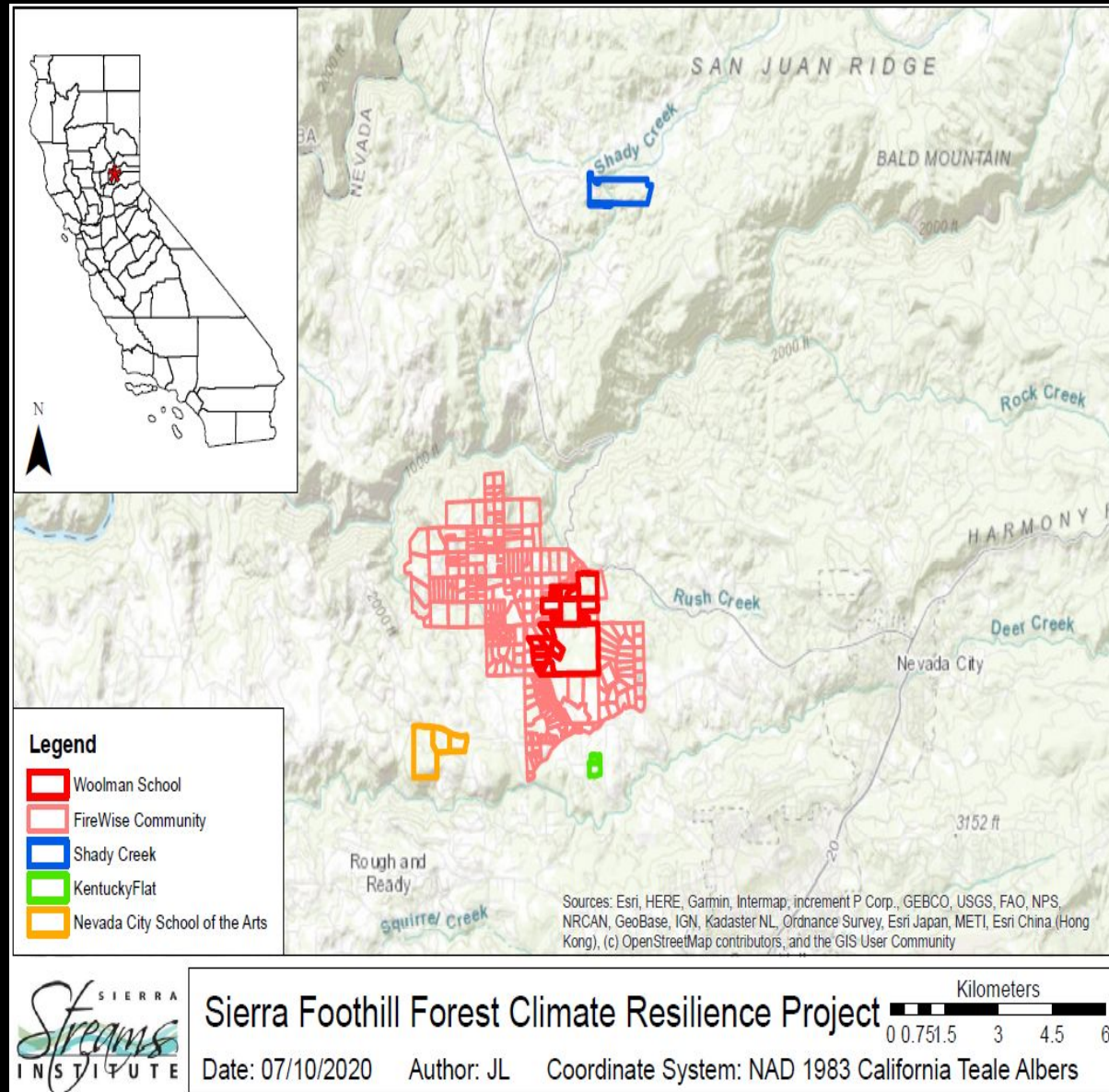
- Bear River Restoration Plan – many federal and state partners
- Salmon spawning habitat – gravel augmentation
- E.coli source sampling on Deer Creek reservoir
- Land management plans – Upper Deer Creek, Steephollow Creek, Forest health and fire resilience along Little Deer Creek



Native vegetation planting

Sierra Foothill Forest Climate Resilience Project

- 600 acres in Nevada County
- Primarily within the Jones Fire Scar, surrounding community, and multiple private school properties
- Create plans to standardize forest management across multiple properties in the wildland urban interface (WUI)
 - Fire resilience
 - Drought resilience
 - Wildlife habitat
 - Create landowner toolkits.



Historic Mine Cleanups



US EPA Brownfields assessments/cleanups
Creates greenspace, trails, parks and protects health for residents

Research

Human Health Studies: Are historical mining contaminants contributing to our high breast cancer rates in Gold Country counties?

Current California Breast Cancer Research Program funding:

- AIM 1: Map residential proximity to mines for breast cancer cases throughout Gold County
- AIM 2: Collect additional information on household risk factors:
 - Lifestyle questionnaire
 - Drinking water
 - Soil
 - Vegetables
 - Dust
- AIM 3: Expand community engagement. Discuss and implement remediations to protect community health



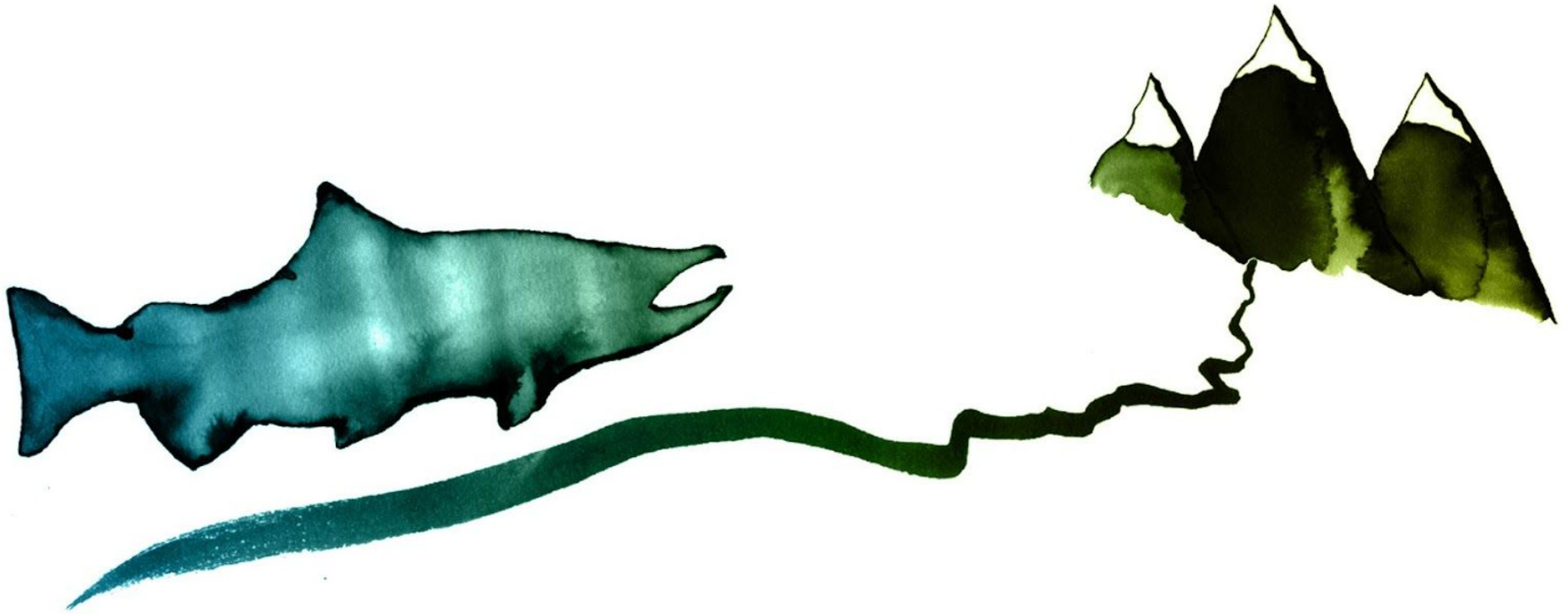
Education Program Overview

We have many educational programs in the region including:

- National Science Foundation 4-year collaborative research project between UCD Center for Community & Citizen Science, Sierra Streams Institute, and Nevada County Superintendent of Schools, 3rd – 5th grade Forest health and fire resiliency data collection. Training teachers.
- Hands on, place based curriculum for Nevada County schools
- California Naturalist Program through UC Davis
- Sierra Science Series at NCC Sierra College
- Community citizen science projects
- Internships, Americorps members



Thank you for this opportunity.



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