

UI Extension Water Outreach brings IWRRI confluence project to the Treasure Valley

AT A GLANCE

University of Idaho Extension Water Outreach partnered with local agencies and environmental educators to pilot The Confluence Project, a successful program, in the Treasure Valley.

The Situation

Urbanization, land-use change, and a changing environment threaten water resources in Idaho's semi-arid Treasure Valley and communities across the West. We need informed community members to influence the adaptive water management processes necessary to respond to these challenges. High school students are at an age of high potential: they are finding their passions, working toward academic and career goals and beginning to participate as citizens in their communities. Place-based education connects academic learning and community participation. Students learn classroom concepts about water resources and environmental science through participation in tangible activities relevant to their local communities.

University of Idaho's Idaho Water Research Resource Institute (IWRRI) hosts a high school watershed education program called The Confluence Project (TCP) that has run for thirteen years in north Idaho. Environmental Science students collect water data on three field trips over the school year and then present a water research project at the Youth Water Summit. Last year, the Treasure Valley Water Education Needs Assessment conducted by UI Extension Water Outreach noted interest from teachers, environmental educators



Caldwell High Environmental Science students find crayfish in Indian Creek on The Confluence Project Water Quality field trip.

and agency staff in piloting The Confluence Project locally.

Our Response

Within the last year and a half, IWRRI and UI Extension Water Outreach have expanded staff and resources to southern Idaho, with the goal to scale The Confluence Project throughout Idaho. The area water Extension educator is currently piloting TCP for the Treasure Valley with a strong network of community partners.

The TCP program applies environmental science topics to local water resource processes. Ahead of their field trips, students learned about impacts to water quality, including mining, land-use and river management

from presentations by Idaho Rivers United and UI Extension Water Outreach. Students used the IDAH2O Master Water Stewards protocols to collect water quality data at Grimes Creek, the Boise River at Barber Park, Indian Creek and the Boise River at Martin's Landing. Partners include Ada Soil and Water Conservation District, Ada County Parks and Waterways, City of Boise Public Works, Idaho Department of Environmental Quality and many more.

In addition to water quality sampling, some students toured the City of Boise's Phosphorous Removal Facility or the USBR's Diversion Dam and learned about technical careers in water. Some students participated in a volunteer service-learning project through City of Boise Parks and Recreation. Through experiential activities and classroom follow-ups, TCP curriculum introduces students to the connected systems of snow, surface and groundwater in the Treasure Valley.

Program Outcomes

Six Environmental Science teachers from five high schools in the Boise River Watershed are participating with their students in this year's Treasure Valley TCP pilot. Altogether, 218 students from Idaho City, Timberline, Kuna, Caldwell and Mountain View High conducted surface water quality sampling during fall TCP field trips. These students will take two more field trips this school year and present research projects at the Youth Water Summit.

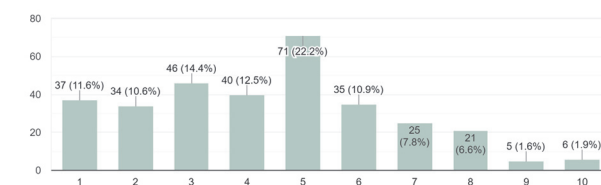
All participating students take a pre-test assessing perceived self-efficacy of science and natural resource skillsets before their first field trip, and a post-test at the Youth Water Summit upon completion of the program. TCP has been shown to improve students' understanding of and confidence in doing science. When asked of scientific subjects make sense to them, the

post TCP scores go from an average score of six to an average of eight. Even more notably, when asked if they know how to use a scientific process to research a problem, students went from an average of 5.5 pre-TCP to nine post TCP. We expect similar results for Treasure Valley students at this year's conclusion.

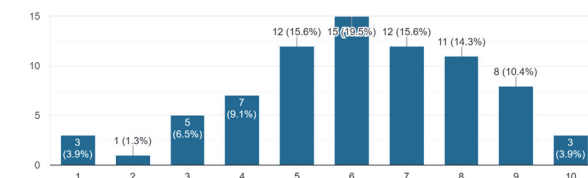
The Future

Pressures on water resources are strong in southeast Idaho; IWRRI and UI Extension Water Outreach are looking toward growth of the TCP program throughout southern Idaho. The area water Extension educator is building connections with a network of southeast Idaho teachers, environmental educators and agency staff passionate about water resource education.

I can identify water resource problems in my community.
320 responses



I can identify water resource problems in my community.
77 responses



Pre (grey) and post (blue) test survey results from north Idaho showing knowledge gained through field science experiences.

FOR MORE INFORMATION

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