

GENERATIONS OF KNOWLEDGE:

Traditional Ecological Knowledge and Environmental Science [#1010559]

Primary Audiences

- **Public Audiences:** general—families, underserved—Native youth (ages 11-14) and their communities
- **Professional Audience:** project team members from all partner organizations

Our approach to connecting with diverse audiences:

- Native youth audience was identified by tribal communities and partners as their priority.
- Evaluation team includes Native evaluators from RMC Research Corp. and Native Pathways.
- Evaluation plan is developed collaboratively with project partners through an Evaluation Input Committee. Native youth at partner sites were major contributors to the front end findings.
- Our partners (IEI, NMAI, Tamástslikt, and Hibulb) represent diverse Native communities and have extensive experience in informal education for Native audiences. New Native advisors have joined the project to collaborate on content about Hawaiian and Cherokee restoration projects.
- Project team has added a Native Youth Advisory Board of local students to advise and collaborate on the project deliverables.

Connections we hope to make at the PI meeting:

- Connect with other projects that are serving Native audiences to share resources and learn from each other.
- Connect with other projects to inspire interest in Traditional Ecological Knowledge, and collaboration with Native audiences and organizations.
- Connect with other projects that are collaborating with youth
- Connect with NSF program officers, other staff and new ideas.
- Connect with CAISE team and learn more about its resources and initiatives.

This project engages underserved Native and non-Native audiences in environmental science content and awareness through innovative traveling exhibits and programs. Traditional ecological knowledge (TEK) and western science are communicated and promoted within culturally relevant contexts as valuable, complementary ways of knowing, understanding, and caring for the world.

The Oregon Museum of Science and Industry (OMSI), and its partners, the Indigenous Education Institute (IEI), the National Museum

of the American Indian (NMAI), the Tamástslikt Cultural Institute (Confederated Tribes of the Umatilla Indian Reservation), and the Hibulb Cultural Center and Natural History Preserve (Tulalip Tribes) are working collaboratively to develop and deliver all aspects of the project.

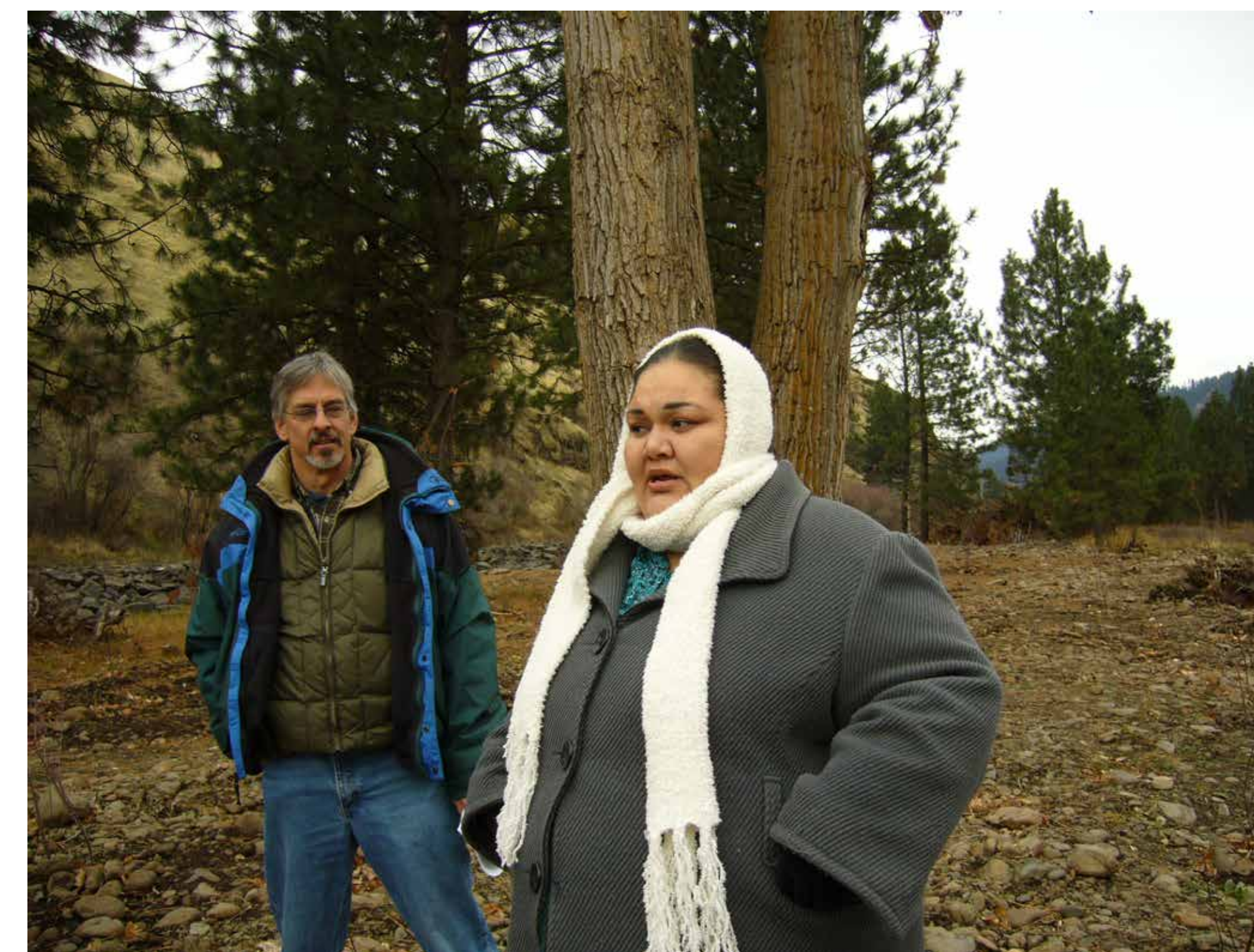
The Institute of Learning Innovation and advisors from RMC Research Corp. and Native Pathways are conducting the external evaluation using a mixed method, community-based participatory research (CBPR) approach.

Big Idea

“Traditional ecological knowledge (TEK) and western science are both valuable and complementary for understanding the natural world.”

Project Deliverables:

- A 2,000 square foot traveling exhibition designed to engage families at science and tribal museums in the “big idea.”
- A 150 linear foot traveling graphic panel exhibition and on-line exhibition created in collaboration with NMAI and the Smithsonian Institution Traveling Exhibition Service (SITES) for small tribal museums and other venues.
- An activity kit for Native youth in informal and formal settings.
- Opportunities and resources for reciprocal collaboration between informal science educators and Native American partners through a professional collaborative initiative. A legacy document will share lessons learned with the museum field.



Public Audience Impacts

- Awareness that traditional ecological knowledge and western science offer complementary ways of understanding the natural world
- Attitudes that TEK and western science are both relevant and valuable for understanding environmental issues
- Skills related to TEK to care for the environment, such as observing or modeling, through learning that occurs between different generations
- Skills of the scientific process, such as predicting or measuring, to care for the environment
- Other unanticipated positive impacts

Professional Audience Impacts

- Skills that increase the project team's capacity to facilitate reciprocal collaborations that bring TEK and western science together in informal learning environments
- Attitudes of confidence in team members of their ability to work more effectively through a reciprocally collaborative process
- Other unanticipated positive impacts

Project Challenges

- Working with advisors and partners from many different cultures and regions
- Defining TEK for public audiences and within the larger OMSI team
- Creating educational experiences for Native and non-native audiences from many different cultures (the Portland area alone includes over 300 different tribes)

