NRT: Rivers, Watersheds, Communities: Training an Innovative, Cross-Sector Workforce for Equitable, Multi-Scale Decision-Making Towards Human and Ecosystem Health

Main goal: implement an <u>engagement model of graduate education</u> to provide students an impactful and innovative learning experience, to develop practical and diverse skill sets, and build an understanding of varied cultural perspectives to prepare them for career paths in multiple sectors

Effect a **cultural shift** in STEM education through **community engagement** and **transdisciplinary learning** using a **student-centered** mentoring model

Expected number of students
- 25 NRT-funded trainees (9MS/16PhD)
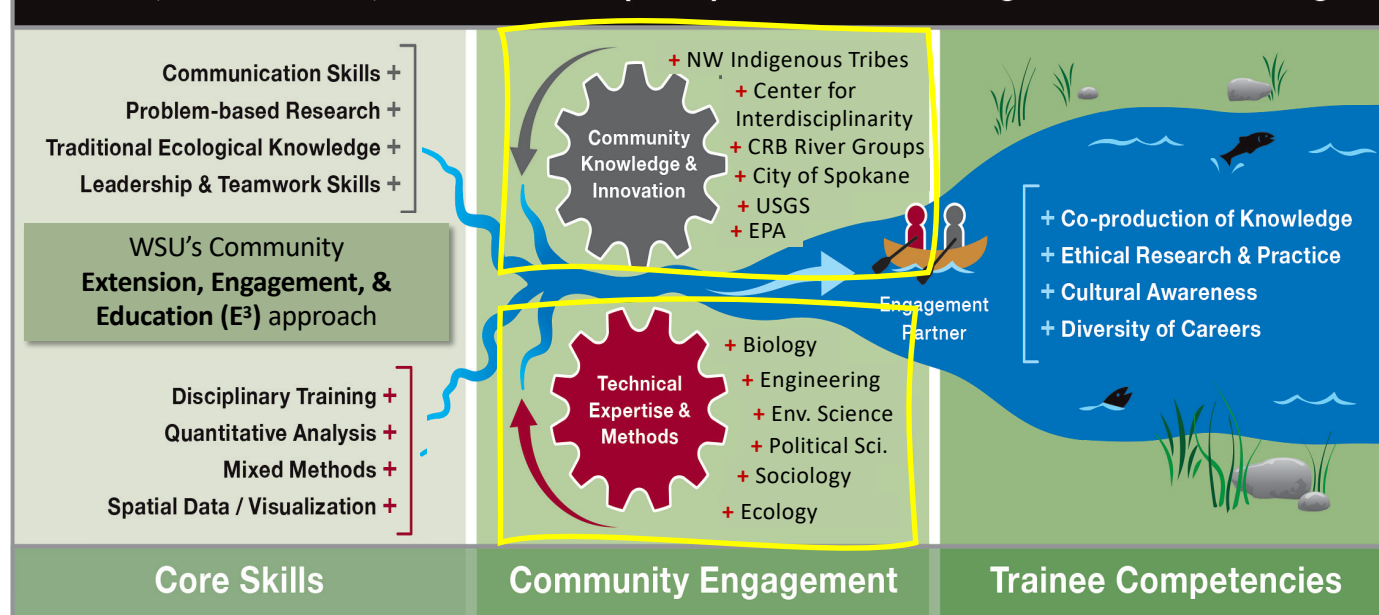- 20 non-NRT funded trainees (10MS/10PhD)
- 20 non-NRT students (10MS/10PhD)

Research themes
1. Equity, risk and the distribution of power
2. Human and ecosystem health consequences of anthropogenic change
3. Landscape dynamics and integrated solutions

Broader Impacts
1. **Solution oriented training** to solve complex problems in river systems
2. **Mentoring** model to attract underrepresented students
3. **Partnerships** for discovery and co-production of knowledge
4. **Culture** of ethical scientific practice for achieving equitable solutions

Rivers, Watersheds, Communities (RWC): *Where Knowledge Streams Converge*

Communication Skills +
Problem-based Research +
Traditional Ecological Knowledge +
Leadership & Teamwork Skills +

WSU's Community **Extension, Engagement, & Education (E³) approach**

Disciplinary Training +
Quantitative Analysis +
Mixed Methods +
Spatial Data / Visualization +

Community Knowledge & Innovation

Technical Expertise & Methods

+ NW Indigenous Tribes
+ Center for Interdisciplinarity
+ CRB River Groups
+ City of Spokane
+ USGS
+ EPA

+ Biology
+ Engineering
+ Env. Science
+ Political Sci.
+ Sociology
+ Ecology

Engagement Partner

+ Co-production of Knowledge
+ Ethical Research & Practice
+ Cultural Awareness
+ Diversity of Careers

Core Skills   **Community Engagement**   **Trainee Competencies**

Innovative Pieces: CRB Living Atlas; Integrated Solutions Course; Environmental Health Seminar; Engagement Experiences

Sustainability: Science & Community Engagement (ScienCE) certificate