TEX Statement on Integrity in Community Science

Definition

Community science is defined as the process by which scientists and communities do science together to advance one or more community priorities. Doing science includes defining questions; designing protocols; collecting and analyzing data; and using scientific knowledge in decision-making and planning. Communities can be communities of geography, communities of practice, or people bound by common interests. Community Science has several benefits:

- It **advances** community priorities and scientific knowledge
- It **increases** communities' understanding of science and scientists' understanding of communities
- It **enhances** the scientists' ability to contribute to societal goals and communities' ability to leverage science
- It **broadens** participation in science and **expands access** to scientific knowledge, especially with communities that have been historically underserved and under-represented in science
- It **promotes** transparency in decision-making, planning and research

All these benefits depend on and derive from the integrity of community science.

Purpose

This statement is intended to document and share the principles of community science. It was designed for and by TEX participants, but it rests on broader principles. Pragmatically, it is designed to be a foundation for successful community science projects launched through TEX and a starting point for developing operational practices for individual projects. Many cultural traditions and a growing body of research suggest that articulating shared values and responsibilities at the start of a cooperative project improves outcomes and impact. TEX hopes to inspire the larger scientific community and encourage strong and expanded collaboration between communities and scientists for the common good.

Foundations

- Community science is based on the highest standards of integrity in research, as articulated, for example, in the Singapore Statement on Research Integrity, which AGU has used as the foundation for AGU's Scientific Ethics and Professional Integrity Policy.
- Community science follows the highest standards for ethical engagement with communities. One statement of those standards is the Principles for the Ethical Engagement in Public Health, from the American Public Health Association and the Association of Schools of Public Health.

Principles

- *Mutual Respect*: Community science offers scientific methods and data as two of many useful and important tools that are part of complex decision-making. Community science welcomes local and indigenous knowledge and practices.
- *Mutual Planning*: Community leaders, community representatives, and scientists are active partners in project planning and execution, fundraising, and sharing results. This is a higher standard than the standard of informed consent that is used in many research projects involving human subjects.
- *Co-ownership of Data*: The data collected in community science projects belongs to the community, and can only be used or shared with community consent.
- *Community Benefit*: Community science is designed for tangible, concrete benefit to communities and the outcomes of the project should reflect that. Publications for a scientific audience are less important than community impact.
- *Inclusiveness*: Community science strives to engage and benefit the whole community, making special effort to educate, engage, and benefit community members and scientists who have been historically marginalized or underserved.
- *Do No Harm*: Community science projects do not inhibit opportunities, damage natural systems, or harm ecosystems or people.