



## **Understanding and Managing Risk in Thriving Earth Exchange**

*Thriving Earth Exchange requires all participants to review and sign this document before participating.*

### ***Purpose of the document***

Most worthwhile activities come with risk, including community science projects with Thriving Earth Exchange. This document describes some of those risks and the strategies Thriving Earth Exchange uses to manage those risks. We encourage project participants to have a frank conversation about risk early in their project.

### ***Why it is Important to Consider Risk***

All project participants should choose to participate in projects with as complete an understanding of the project as possible, including an understanding of potential risks. Describing potential risks gives project teams the opportunity to mitigate those risks or develop plans to manage those risks. As with disaster preparedness in general, it is more effective to develop strategies to deal with risk ahead of time, before you are grappling risk itself. We have observed that developing trust and open communication, including communication about potential risk, is a key element of successful projects.

### ***Using Science for Action***

Thriving Earth Exchange is committed to advancing science that communities can use to guide actions or make decisions. It is possible that a decision or action, even one made in good faith with the best possible information, could have an undesired or unexpected outcome. Scientists need to accept the possibility that scientific input may not be the deciding factor in a decision or action. Communities need to accept the possibility that the science may be incomplete or inconclusive, the results may be antithetical to what they anticipated, and that even the best scientific information can't guarantee a desired outcome. This risk is managed by maintaining the highest standards of scientific integrity and transparency.

### ***Transparency***

Thriving Earth Exchange is committed to transparency - that the scientific results, processes, and data of a project are actively shared with anyone interested in, involved in, or impacted by the project. We do this to promote broader and more equitable participation in science, to ensure the integrity of scientific methods, and to share results so that they benefit as many people as possible. We ask all project participants to commit to this level of transparency.

Sharing projects results this way has risks. For example, information about air pollution in neighborhood might be used to cast a neighborhood in a negative light, suggest an actor or actors is responsible for the pollution, or affect property values in the neighborhood.

To mitigate this risk, we ask all participants in a Thriving Earth Exchange project to acknowledge these risks before launching data collection. We also suggest, as a best practice, that project leads share their results with relevant stakeholders and consider their comments before publishing or otherwise disseminating results.



### ***Limits on Transparency***

To protect individual privacy of cultural sovereignty, it can be acceptable to limit transparency with the prior agreement of all project participants.

- For example, a project to collect data about indoor pollution chose to publicly share only aggregate data, so that individuals or individual houses couldn't be identified. In these cases, Individual data was shared directly with interested homeowners or residents, along with strategies to mitigate any dangerous levels of pollution.
- As another example, leaders in a project about water quality on sovereign tribal lands chose not to release the location of sacred sites, though they did include the water quality data for those sites and released the location and water quality data of all other sites. We encourage all projects to explore and agree to any limits on transparency before beginning data collection or analysis. Thriving Earth Exchange is committed to honoring community ownership of community knowledge, data, culture, identity, and practices.

Unless directed otherwise, Thriving Earth Exchange will publicly share relevant information about project objectives and activities, as well as products generated through Thriving Earth Exchange collaborations. Project teams may request Thriving Earth Exchange temporarily or permanently refrain from sharing news, data and products due to privacy, legal or scientific concerns. In all interactions dealing with sensitive or personal matters, project participants can expect respect and discretion from Thriving Earth Exchange staff.

### ***Contentious Issues***

Thriving Earth Exchange is committed to ensuring that all communities can ask and explore Earth and space science questions that are important to them. Sometimes, these questions are connected to controversial issues. For example, communities might ask for scientific help evaluating how a proposed development could influence the probability and severity of flooding in their neighborhood, and they may use the results of the scientific work in legal or legislative efforts related to the development proposal. A third party may also use the results, or question them, in their legal efforts. In rare cases, it may be the case that project results are used in legal proceedings and that project participants are asked or even compelled to testify in court about the project.

To mitigate this risk, we ask community leaders to be upfront about these issues (for example, if they plan to use data to influence legal or legislative processes). We also ask scientists and community leaders to be transparent about results and adhere to the standards of scientific integrity.

### ***Relationships***

Thriving Earth Exchange is committed to helping community leaders and scientists work well together to accomplish planned results. There is a risk that the scientist-community relationships could sour. Thriving Earth Exchange mitigates this risk by careful vetting, ongoing coaching, suggested practices, and regular communication.



***Disclaimer***

Thriving Earth Exchange does not accept legal liability for the results of individual projects or the conduct of volunteers. Thriving Earth Exchange does not provide legal advice or counsel to project participants.

***Signature***

We ask participants to acknowledge the risks above, as well as other unknown risks, and to commit to working together in good faith to reduce and manage risk for everyone involved in or impacted by the project. Your signature or e-signature on this document indicates you have read and agree with these terms.

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Signature

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Date