Jeffrey Langholz, “Flowing Toward Peace: Opportunities and Obstacles for Transforming Water Conflicts through Decentralized, On-site Water Production”
Research Report for CT Faculty Research Grants

A. Statement of research question and its importance

Droughts, climate change, population growth, rate increases, and other factors have led to water conflicts in many parts of the world, including the U.S. West. Current water infrastructure in California and elsewhere relies mostly on large-scale, centralized storage and conveyance systems. These massive networks of reservoirs, pumps and pipes offer several advantages but also contribute to significant social, economic and environmental conflicts.

This raises an important question***: to what extent could we reduce water-related conflicts worldwide through more decentralized, locally controlled approaches to water supply?*** For example, millions of people worldwide have used solar panels to go “off the grid” and gain energy independence. This has mitigated environmental and economic conflicts while promoting social justice. Could we follow a similar path with water, and if so, what would be required in order to make it happen?

This proposed research project explores “distributed” on-site water production in theory and practice. In particular, it explores the following questions: 1) In what ways do large, centralized water systems lead to water-related conflicts? 2) What alternative approaches exist for producing water “off the grid”, i.e., at individual properties? 3) How might these alternative approaches help reduce environmental, economic, and social conflicts?

B. List of collaborators and partners

I collaborated with private water companies that produce on-site water production and recycling technologies (especially Source), as well as various organizations that attended my public speaking event in Irvine Auditorium on July 14, 2023 and provided feedback. That audience consisted of various faculty, staff, current students, alumni, and prospective students and their family members visiting Monterey for Preview Day.

Unexpected collaborators include the Liquid Assets podcast by prominent water thought leader Ravi Kurani, who interviewed me then posted the podcast episode to Apple, Spotify, etc.

C. Summary of research findings

As planned, I successfully researched the following: 1) latest technologies for on-site distributed water production and recycling systems; and 2) best practices for designing and delivering a compelling TED-style presentation.

D. Implications for study and practice of conflict transformation

The research has implications for transforming water-related conflicts worldwide. The episode description on the Liquid Assets podcast says it well:

“What if we could harvest an unlimited supply of water from the sky itself, then purify and recycle it in a constant loop? On this mind-expanding episode of Liquid Assets, Professor Jeffrey Langholz shares his radical vision for solving the global water crisis through the ultimate decentralized system.”

E. List of publications, performances, media coverage, and other output

The main output is a professional-quality “TEDx” style presentation that was recorded in front of a live audience in Irvine Auditorium at MIIS. Versions of the 30-minute recording are being disseminated through various outlets, for example:

- On the “Opening Up: A Conflict Transformation Podcast” (click here)
- On the MIIS website under Prof. Langholz’s faculty profile (click here)
- In interview format on the “Liquid Assets” podcast by water expert Ravi Kurani (click here).

Once the professional recording was ready, I used it to apply to speak at the main TED conference in Vancouver in April 2024, hoping to spread the message to a much larger global audience. Unfortunately, I was not selected for the main TED stage. The back-up plan remains to use this demo recording to land a TEDx speaker slot in California.