



Reflections: Collaborative Adaptive Management

by Sharon B. Megdal
October 24, 2025

I had the honor of planning for and attending the October 8–10, 2025, workshop, Braiding Knowledges in Water & Land: Collaborative Adaptive Management, as reported in the [October 17, 2025, WRRC Weekly Wave](#). In advance of and at the workshop, people had questions about the meaning of braided knowledges and two-eyed seeing, a term to which I was introduced a few years ago by Australian Indigenous water expert and workshop participant, [Dr. Leslie Phil Duncan](#). The Institute for Integrative Science & Health, located in Sydney, Nova Scotia, Canada, explains: “Two-Eyed Seeing is the Guiding Principle brought into the Integrative Science co-learning journey by [Mi'kmaw Elder Albert Marshall](#) in Fall 2004. *Etuaptmumk* is the Mi'kmaw word for Two-Eyed Seeing... [and] refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing ... and learning to use both these eyes together, for the benefit of all.”

What is collaborative adaptive management? A Massachusetts Institute of Technology Master's thesis by Jenna Kay, entitled [Collaborative Adaptive Management in Practice: Case Studies from Arizona and New Mexico](#) provided a reading for participants that explains: “Collaborative adaptive management (CAM) is a natural resource management approach in which a diverse group of stakeholders iteratively plan, implement, monitor, evaluate and adjust management actions to reduce uncertainty and improve decisions over time.”

Based on these definitions, I understand that braiding knowledges for collaborative adaptive management means working together to iteratively build upon the strengths of Indigenous and Western knowledges to adapt to changing circumstances.

As a workshop panelist, I set the context for speakers from the Colorado River Basin. In addition to displaying maps of the Colorado River Basin and Arizona that show Tribal lands and other jurisdictional

boundaries, I shared my list of seven factors discussed in “Factors that Contribute to Successful Diplomatic Outcomes: Case Study of the Colorado River Basin Cross-boundary Institution,” which has now been published in the **Routledge Handbook of Water Diplomacy**. (The PDF of the handbook is freely available online.) The factors are

1. A functioning mechanism for cooperation, including knowledge co-production
2. Mutual respect contributing to trust
3. Involvement of interested parties (stakeholders)
4. Good communication
5. Persistence and patience
6. Eating with your partners
7. Leadership

Items that often receive nodding heads and comments of reinforcement are mutual respect and trust and eating with your partners. Without trust, it is difficult for the parties to work through difficult discussions. Breaking bread together contributes to the relationship building from which respect and trust emanate. Trust among those involved is necessary to working iteratively to adjust management actions. To this list, I often add transparency and sharing lessons learned, both positive and negative. The workshop included opportunities to break bread, to build relationships (including through canoeing the beautiful Grand River), and to share experiences in research, governance, and/or processes related to adaptive management. Another key element of collaboration is listening to learn from each other. I have sometimes called for “two-eyed hearing” because we often do not listen to those expressing perspectives and/or results with which we are unfamiliar and/or uncomfortable.



Chief Sherri-Lyn Hill (far left) with dancers and singers from the Six Nations of the Grand River and workshop participants. Image: Jérôme Marty

I worry at times about being repetitive in these essays. A look at past **Reflections** will find that I have mentioned two-eyed seeing in the past, along with process factors that contribute to identifying and implementing solutions. Yet, as I engage in discussions on our significant water challenges with individuals and groups of different backgrounds, geographies, experiences, and perspectives, I hope that some repetition is OK. Whatever our professional and personal situation, let's continue to reflect on how we improve our ability to “...iteratively plan, implement, monitor, evaluate and adjust management actions to reduce uncertainty and improve decisions over time.” And let's remember to respect each other in the process.