This is the second in a series of briefing notes prepared under the Canadian Water Network project *Governance for Source Water Protection in Canada*. Here we discuss common challenges of collaborative decision making.

Now more than ever in making decisions about water, including the protection of source water, there is concern about the process and context in which decisions are made. Historically, government agencies have dominated decision making using a top down approach. More recently, however, a wider array of participants is included in water-related decision making processes. Goals underlying this shift can include democratizing the process, adding legitimacy to the outcomes, strengthening the capacity of local communities, and increasing likelihood of plan implementation.

There is much enthusiasm for these joint decision making endeavours, at least on a conceptual basis. However, there also are reasons for caution. Four characteristics of collaborative decision making processes can result in frustration and uncertainty for participants.

1. High cost of interactions

Fundamental differences exist among people and organizations. Thus, we should anticipate that participating in collaborative endeavours with a diverse group of people will challenge long-held beliefs. Where genuine commitment is required to make long term collaboration valuable, these interactions can be tense and even troubling for those engaged in them. For example, water operators focused on maintaining drinking water quality throughout their system, and watershed groups focused on aquatic habitat, will need to understand, appreciate and respect each others' perspectives for collaboration to succeed.

2. People weigh their own experiences most heavily

We know from research into risk communication that people's own experiences trump all other forms of knowledge. A scientist may find it frustrating to participate in a group dynamic where the empirical work that he or she has conducted in accord with professional standards is considered in the same vein as observation provided by people with less technical expertise. Similarly, people who have experienced a problem first hand in their community may find the perspectives of outside limited scientific experts to be and unrepresentative of local concerns.

3. Nothing happens quickly, and then something does

Stable eras of incremental policy making may be jolted by circumstances that lead to rapid and dramatic shifts in what is feasible. One consequence is that after a specific event or tipping point, collaborative endeavours may be valued quite differently, and may be required to play roles that differ from the ones that were defined when they were initiated. For example, source water protection programs that struggle gain community support may find to themselves overwhelmed when a potential source of contamination gets media attention. The continuity of financial resources for planning and implementation can also be challenged during uncertain economic times.

4. Values, not science, arbitrates what happens The assumption that science-based rationality dominates decision making no longer holds. We know that many other factors, such as values, emotions and social structures come into play when we make decisions. The challenge is to balance the different types of values that exist, and to explicitly recognize and incorporate value-based knowledge with conventional scientific information.

Important Considerations

These challenges suggest a number of questions that those participating in efforts to improve decision making should consider. Being aware of these common challenges is a critical step towards more productive decision making processes.

- Who is not included (but needs to be) if the intended aim of the collaborative initiative is to be achieved?
- How well does each participant understand the different perspectives held by others at the table?
- If individuals weigh their own experiences most heavily, under what circumstances are people around the table most amenable to hearing and considering information that is not in accord with their experiences?
- Considering that the wider context may change during the life of the process, how robust is the process to external shocks? How applicable will decisions and recommendations be under a range of possible scenarios? How can the initiative take advantage of a window of opportunity to consider new viable options?

The CALFED Bay-Delta Program (1994-2007)

A fragile ecosystem that has long been the site of intense water use and conflict, the Bay-Delta region of California is an estuary comprised of San Francisco Bay and the Sacramento-San Joaquin Delta. In 1994, in response to escalating "water wars" in the region, over 25 federal and state agencies and representatives of more than 30 stakeholder groups and local agencies agreed to collaborate in an initiative for restoring and managing the Bay-Delta – the CALFED program. Widely considered one of the world's most extensive - and expensive - water management initiatives, CALFED represented an ambitious and innovative experiment in collaborative water governance, and many lessons can be drawn from its successes and failures.

kev challenge imagining and A was implementing solutions that could be compatible with multiple visions: some saw the Delta as a water conduit, others saw it as a place to live and farm or an ecosystem for fish and birds, and others emphasized the plights of low-income and indigenous communities. The complexity and dynamic nature of the Delta made it clear that scientific evidence was far objective, from and that considerable uncertainty existed that had to be addressed in water governance processes. Despite its innovative approach, CALFED appears to have been more successful in transforming the means of thinking about decisions regarding water governance for the Bay-Delta region than in achieving the desired policy outcomes.

To learn more about CALFED, see the references listed at the end of this briefing note.

 Given that values, not science, may decide the outcome of a process, how will values and scientific expertise be incorporated into decision making?

Even if all of these questions are considered explicitly by participants in collaborative decision making processes, it still is important to maintain realistic expectations about possible impacts and outcomes. For instance, research on the collaborative management of California's Bay-Delta region (see box) has demonstrated participants' that, from perspectives, dividends didn't come from the first multi-year planning process. Instead, they resulted from subsequent initiatives undertaken with others who had been involved in the initial process.

Summary

Collaborative efforts by diverse groups of individuals to make decisions or to advise decision makers are now an integral element of water governance. To increase the likelihood that these endeavours will be successful, participants must acknowledge four common challenges: (1) the high cost of interactions; (2) individuals weigh their own experiences most heavily; (3) nothing happens quickly, and then something does; and (4) values, not science, often arbitrates what happens. Awareness of these challenges and consideration of how they will shape decision making dynamics will help participants navigate the often complex process of contributing their expertise and insights in a collaborative process for water governance.

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For more information on the CALFED Bay-Delta Program, see the following resources:

CALFED Bay-Delta Program website: http://calwater.ca.gov

Bay-Delta Public Advisory Committee. 2007. *CALFED Bay-Delta Program Performance Assessment.* CALFED Bay-Delta Program: Sacramento, CA.

Bobker, H. 2009. The means do not justify the ends: a comment on CALFED. *Environmental Science and Policy*, 12(6): 726-728.

Kallis, G., Kiparsky, M. and Norgaard, R. 2009. Collaborative governance and adaptive management: lessons from CALFED. *Environmental Science and Policy*, 12(6): 631-643.