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FUTURE CLIMATE CHANGE STARTS WITH STEPS NOW

By Jennifer Pierre, General Manager, State Water Contractors

As we wrestle with our rigid rules, imperfect science and diverse views on how to best manage today's water system, climate change is the one certainty in our future. Climate change is all about adapting. And that, hopefully, starts with adapting right now.

This imperative was perhaps put best by a federal scientist attending a Delta workshop, "Adaptive management isn't a spare tire. It is the steering wheel."

Adaptive management is incremental management, taking steps over time with new information and a dose of courage to let go of previously cherished positions. We have before us some opportunities underway in various state and federal processes to make adaptive management the steering wheel and not the spare tire. Can we do it?

Perhaps the most important test in California water to move toward adaptive management is with this once-in-a-generation effort by the State Water Resources Control Board to review the beneficial uses of water on the rivers of the western Sierra and within the Sacramento-San Joaquin Delta.

The Newsom administration is leading a coalition of state and federal agencies, public water entities and various conservation organizations to voluntarily propose a suite of actions to improve ecosystem conditions in the Bay-Delta and upstream watersheds. A cornerstone of these so-called Voluntary Agreements is to dedicate a "block" of water for the environment. With funding and water provided primarily by water users throughout the state, the proposal calls to adaptively manage this block of water for the environment and for purposes of testing hypotheses via a collaborative scientific process over 15 years.

We have never had an opportunity like this before with this amount of water, money and proposed collaboration. The Endangered Species Act does not demand adaptive management, and even when it's been called for, it has been ineffectively implemented (see previous blog on outflows). No biological opinion has mandated or facilitated a collaborative manner to adapt its rules, nor has it brought together such a diverse group of stakeholders for decision-making and implementation.

These proposed Voluntary Agreements are new. They are exciting. And they are also admittedly unsettling, because change always is. Undoubtedly some pre-conceived notions about how the ecosystem works, whether it is the role of flow or habitat, will be examined and called into question.

There can be a strange safety in the rigidity of how we regulate and operate California water today. But we're going to have to get over that. If we can fine-tune these voluntary agreements, secure Water Board approval and establish a 15-year game plan for one of the nation's largest adaptive management plans for water and ecosystem operations, what a golden opportunity there is before us.

Granted, this one proposal is not the solution to climate change. Rather, think of it as more of a dress rehearsal for the coming main event.

Our current regulatory construct is the polar opposite of adaptive management. Much of our system is operated based on a human calendar first devised by Julius Caesar some 2,064 years ago. We will need to operate our system in the future, adaptively, based on the very best weather forecasts and environmental monitoring that our science can provide.

Even with infrastructure improvements such as Delta conveyance, storage, and local projects, we cannot expect to have as much control of our water system as we do now. We cannot control the weather. We cannot control Delta water temperature. A future with more rain and less snow means key decisions on a real-time basis. These decisions will shape the resulting ecosystem and water supply portfolio.

Adapting our water system and changing how we manage it is our only hope to keeping up with the changing climate. If we begin this cultural shift in management today and show that we collectively are up to the challenge, the future should not seem so scary. We can be at the steering wheel if we choose.

This is the final blog of a four-part series. Read the first, second and third blog: [Finally, a new path toward managing water, rivers and the Delta](#), [Beyond the Pumps: Can We Study Flow Needs? & Flow's Interaction with New Habitat: Finding the Right Combination](#) or view the whole series on our website.