



Internet  
of Water<sup>™</sup>

# State Agency P2P

## Spotlight



### Challenges, Solutions, and Lessons Learned with **Greg Gearheart**

# 1

What are challenges facing your agency in regard to its management or use of water data?

We face more legacy relational database problems in one department than some whole states, or maybe even the federal government. Our organization uses over twenty enterprise applications, all developed over fifteen years ago, to manage key, mission-critical decisions. We spend endless hours manually integrating data to answer public questions. On top of this we face the added challenge (mandate) of integrating our data with a whole different (larger, more complicated and culturally very different) water agency in CA. We have spent four years trying to make our water data more interoperable and we have barely scratched the surface, but this challenge is what motivates me to work harder and smarter every day.

This challenge is what motivates me to work harder and smarter every day.

Finding a common language is foundational to making progress, whether it be data standards or at the higher level or just sharing strategic vision with your colleagues.



What are lessons your agency has learned regarding water data management and use?

2

Finding a common language (vocabulary, terminology, whatever) is foundational to making progress, whether it be data standards or at the higher level or just sharing strategic vision with your colleagues. After three years we are finally embarking on a project for sharing the understanding of what it means to "federate." While it sounds like this should be easy, the details are very important and elusive. Recently we talked through the "stages of federation" as we all commonly understand them, starting with the basics of "accessibility" and "discoverability" and ending with what it means to be "fully integrated." Around this framework we hope to plan out our projects and tools - valid vocabulary for tagging, API protocols, naming conventions, and common data models - and improve our collaborative performance.

3

What potential solutions is your agency exploring to meet its challenges?

We have to make progress on all things together, at the same time. I do not mean to sound alarmist, but water data is core to our human resiliency, and the times we are in are proving that delay to information means tragic outcomes. So as a team charged with improving water data flows (sic) we are all determined to question our assumptions and solve our bickering tactics. In the old days this was just called intergovernmental process. In the new days we are actively being disruptive to our own stuck systems. This may sound radical but when people are unable to access safe, affordable drinking water in the State of California in 2020, radical is probably the right setting to start at.

Learn more about the California's data modernization efforts  
and get in touch with Greg:

**Greg Gearheart, Deputy Director**

Information Management and Analysis  
California State Water Resources Control Board

greg.gearheart@waterboards.ca.gov



28 Years of Experience in Water

Skills: Mad croquet skills!