Internet of Water

State Agency P2P Spotlight

Challenges, Solutions, and Lessons Learned with Stacy Timmons

New Mexico Water Data

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

For years, I have enjoyed working on hydrogeology and water-related projects—putting together regional studies of aquifers, groundwater movement and recharge. From collecting the data in the field, like sampling remote springs for water quality or measuring depth-to-water in wells, to managing those data in our early enterprise database. Collecting water data and compiling it with other datasets has been a big part of the work our Aquifer Mapping Program does at the state geologic survey (known as the NM Bureau of Geology and Mineral Resources).

With limited water resources in an extremely complex hydrologic and geologic state, having direct access to data where it's available, from any data provider, is crucial.

In 2019, our agency was designated to lead the efforts related to the New Mexico Water Data Act—new legislation that directs several of our state agencies to share and integrate key water data. The exciting new challenge we are facing is working to connect multiple datasets that are each managed in different ways, shared in a range of methods, and physically located in different agencies around the state. There is no one "ready-made" solution for this challenge—so we're working to create the IT infrastructure and framework that will work for our state's water data.

One lesson learned in New Mexico is that being in a state with a relatively small population can have its advantages! With a population of around 2 million people, we have been able to quickly engage with a large number of water-interested people and agencies to develop, share updates, and build consensus for our plans. With a small and efficient implementation team of 6 people, we've been able to move quickly to develop the governance, vision, and goals for the effort, as well as inventory the data in its current forms.

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

In my opinion, having legislation in place, such as New Mexico's Water Data Act, is important to bring the key players to the table to work together. Over the last year of implementing the Water Data Act, we have learned a lot about the inner workings and data management practices of our collaborating state agencies through numerous online and in-person workshops and meetings. I think one of the biggest successes is simply the new human connections between the people who work with the data in different agencies. For the first time ever in our state, the people who work in the "trenches" with the water data are being asked to work side-by-side with other state agencies to figure out how we can integrate our data. They are full of ideas and experiences and are proving to be useful, untapped resources.

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

The solutions that we're using to meet the challenges of integrating water data require a diverse group of team players—especially in the data and IT realm—who are willing to share practices, similar experiences, and ultimately create solutions by working together. In our state, no single agency holds all of the water data. The online space and tools have to be created to bring these diverse datasets together. Similarly, no single person has all of the skills or knowledge to solve this challenge, so finding team players who can work together, listen and learn from each other, and devise creative solutions are helping us to build the solutions for data management that work in our unique state.

Learn more about the New Mexico Water Data Initiative and get in touch with Stacy:

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18 Years of Experience in Water

Skills: Hydrogeology; field water data collection; database management, and recreational rafting on water!