Webinar 2: Downscaling, Upscaling + A Few Things in Between:
Assessing Climate Risk, Making Decisions
Aired: Tuesday, November 8, 2011
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Questions and Answers

Q&A with Laura Briefer

Q: Can your commercial water customers (Tesoro, water bottlers, et al.) be placed in a secondary position after the needs of citizens (hospitals, homes, etc.) with swimming pools and other luxuries paying much higher rates or prevented from drawing from the SLC reserves? How can cities set priorities regarding water usage in their water systems?

A: A couple of thoughts. First, incentivizing and promoting conservation can be tied to the rates applied to water. In our case, Salt Lake City uses a tiered rate structure for water use—the more water used, the more per gallon it costs based on this structure, up to a fourth tier of use. The tiered rate incentivizes a thoughtful approach to water use at the individual scale and creates a price decision point for many people—especially in landscape or industrial process decisions.

Second, the issue of prioritizing access to water based on use is tricky. A community as a whole includes commercial entities as well as our citizens, that combined, provide for the community's prosperity through its economic sustainability and quality of life. For the prosperity of the community, there is a need to consider a wide variety of water needs. However, I also think this is a very local issue that each community needs to carefully evaluate and balance. The key here is to include water supply as an important part of the conversation.

Because land use is intimately linked with how and where water is used, land use processes that integrate water supply plans are one way of getting a more holistic view of the makeup of the community and how water might be allocated among sectors or geographic regions, and determining whether there are red flags—for instance future siting of energy production facilities that are water intensive in a desert or area of high water conflict; or considering whether proposed industrial or residential development/zoning are appropriate in an area if there is not a proven reliable water

source (sometimes these get built based on a water source that runs dry, placing burdens on neighboring communities to extend their supplies).

In this era of uncertainty, climate change scenarios should be integrated in our discussion and decisions regarding water use in some way, especially in the long-range land use planning processes. In general, I'm not sure to what extent this has been really incorporated in most areas. I know in our situation, we talk about climate change in our land use planning processes, but it is often an abstract and complex concept to many and hard to incorporate. We still have lots of work to do in this regard.

Q: Since SLC has a snowpack-driven surface water supply, is EPA requiring you to cover any of your storage reservoirs for public health (e.g., cryptosporidium) reasons like they are for Portland's Bull Run system?

A: Salt Lake City has not been required to cover the limited reservoirs we have. Most of our drinking water goes from snowflake to treatment plant without any intermediate water storage. I would be interested in finding out more with respect to the Bull Run system or other systems where cover has been required.

Q&A with Kiyomi Morino

Q: Can you see climate results for large river basins, such as the Columbia or Colorado basins in their entirety [in regards to ClimateWizard]?

A: *There is an option for uploading shapefiles in Climate Wizard under the ClimateWizard Custom analysis ("Resources" panel in upper right corner of homepage). And either it's not working or it's not readily apparent how it works. In any case, I have emailed the tool developers to get more information. So, stay tuned! In the meantime, you can use the custom analysis to extract any data of interest (i.e., historical or projection on annual, seasonal or monthly timescales) but you will need to use your own GIS to clip the target basins.*

Q: Looks like Climate Wizard exclusively uses the stat DS Maurer et al dataset. How can users diagnose the value proposition of the BCSD dataset when compared to others, how do we implement the caveat emptor principle?

A: The Climate Wizard deploys only one set of downscaled data for visualization and analysis, i.e., the statistically downscaled data from CMIP3 (http://gdo-dcp.ucllnl.org/downscaled_cmip3_projections/dcpInterface.html). So, in its current form, evaluating how these data compare to other downscaled data is beyond the scope of Climate Wizard. Previously, tool developers identified uploading other datasets as a future enhancement. Whether this is still an objective, however, remains to be seen.