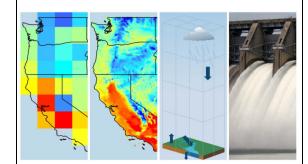


## Piloting Utilities Modeling Application (PUMA)

## Lessens Learned



ACTIONABLE SCIENCE IN PRACTICE Co-producing Climate Change Information for Water Utility Vulnerability Assessments





- Assessment was local, and one size did not fit all
- The scientist and utility-manager learning process was a two-way street
- Water utilities sometimes needed to customize approaches to using climate model output
- Assessment approaches: top down and bottom down



- Need for other forms of data (e.g., extreme events)
- Having a localized-hydrological model could not be overstated
- Innovation
- Utilities required flexibility in exploring different methods to use climate model output