

## SB 272 Hearing Testimony as Prepared for Delivery

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Good morning everyone. My name is Patrick Atwater, I serve as project manager for the California Data Collaborative or “CaDC” for short. Today I’d like to share with you how we’re pioneering the future of water management.

On the slides in front of you are two historic pictures: Pat Brown presenting the State Water Project and his son Jerry declaring the first ever statewide mandatory conservation reductions. It's worth remembering we're in historic times.

As the old adage goes, “you can’t manage what you can’t measure” and this project has pioneered not physical but digital infrastructure to measure the many, many little water efficiency opportunities to meet the Governor’s call for conservation and similarly ensure a reliable water supply for generations to come.

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That’s the vision of this project. Here’s how it works.

The CaDC is a coalition of urban water utility managers from throughout California that have come together with world leading academic, technology and nongovernmental organizations to build new data infrastructure to ensure California has a reliable water supply no matter what the future holds.

The CaDC has contracted with a new 501c3 nonprofit to develop, operate and maintain this new data infrastructure. I serve as Project Manager and lead team ARGO to deliver on the required data integration and ensure the resulting data creates value through analytics.

What data are we talking about? Actual metered water use. It’s the data points on your water bill. How much water was used, when it was used and where it was used. CaDC staff cleans that data and develops valuable analytics for water managers using that data.

The SB 272 data system inventories provides a “map” so that we can better understand the underlying system of current and prospective CaDC utility partners. Those inventories and the success of this initial pilot is why we’re confident we can continue the project’s exponential growth and scale the CaDC statewide.

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To illustrate the value of the CaDC for participating utilities, I'd like to briefly walk you through a case study of our flagship analysis of the historic investment in turf rebates. California has invested approximately half a billion dollars in turf rebates mostly in southern California, the largest outdoor water efficiency program in the US.

The lead CaDC data scientist and project statistician analyzed the water savings associated with turf rebates and published those results at the leading KDD conference. That data integration enables us to show the monthly water savings associated with turf removal as the chart in front of you shows.

Several other studies are ongoing and we are working with the CaDC technical working group to develop an expanded version of this analysis.

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This new data infrastructure has other statewide policy implications, particularly for the Governor's May Executive Order, and CaDC staff has developed tools to support water managers in navigating the Governor's new water use efficiency standards developed in his May Executive order.

This interactive planning tool shows water use by agency against a hypothetical efficiency standard, and note you can go outside to the registration area to see live demonstrations of the efficiency explorer tool.

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And we have a big vision for how the data infrastructure we're building can be used to support water managers in meeting those new standards through some pioneering approaches. This metered water use data is personally identifiable and cannot be made publically available on the web.

Yet we can securely share this data with qualified researchers subject to utility permission. Currently with 411 major urban water retailers in California, it is challenging to say the least for researchers to access this data and conduct critical work on what's working to achieve water efficiency.

Yet by integrating this data into the inter-water utility data infrastructure, we can enable a marketplace of ideas whereby the world's best and brightest can help us tackle California's historic drought.

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Since launching only nine months ago, our team has developed the initial open source, tools to implement that vision on a nonprofit basis. This is a collaborative voluntary effort by local cities and water districts. Early on, the project was honored by the White House as part for the water manager's visionary investment in new data infrastructure.

So what you can see here is a transformative trajectory for supporting the California water industry in navigating the big challenges we face as a state. The CaDC is poised to deliver this data infrastructure statewide to support the Governor's May executive order and provide analytics to support water managers in navigating that new reality.

In addition, the CaDC has completed a feasibility study and stands ready to support the pragmatic implementation of the broader call for water data integration from the recently signed into law AB 1775 "Open and Transparent data act."

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Thank you for your time, and I'd be happy to take any questions.