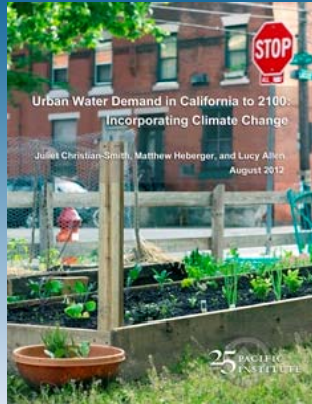


Tools for Success: Forecasting Water Demand



Juliet Christian-Smith, Water Rates Workshop
September 13, 2012

What is demand forecasting?

- Using data, trends, and assumptions to estimate future water demands
- Can be a simple population-based linear extrapolation
- Can be more complex and take into account
 - Changes to water prices (price elasticity)
 - Changes to the climate (climate change scenarios)
 - Changes in customer behavior (20x2020)



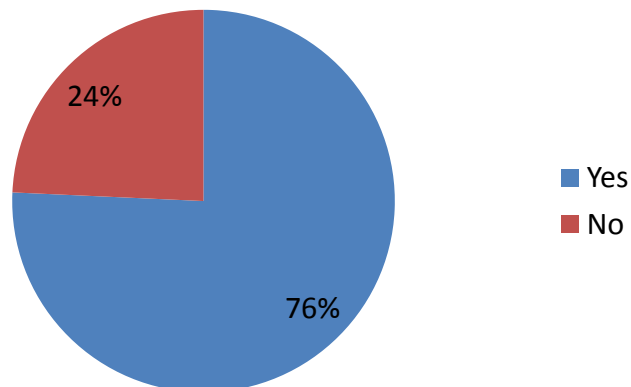
Why do demand forecasting?

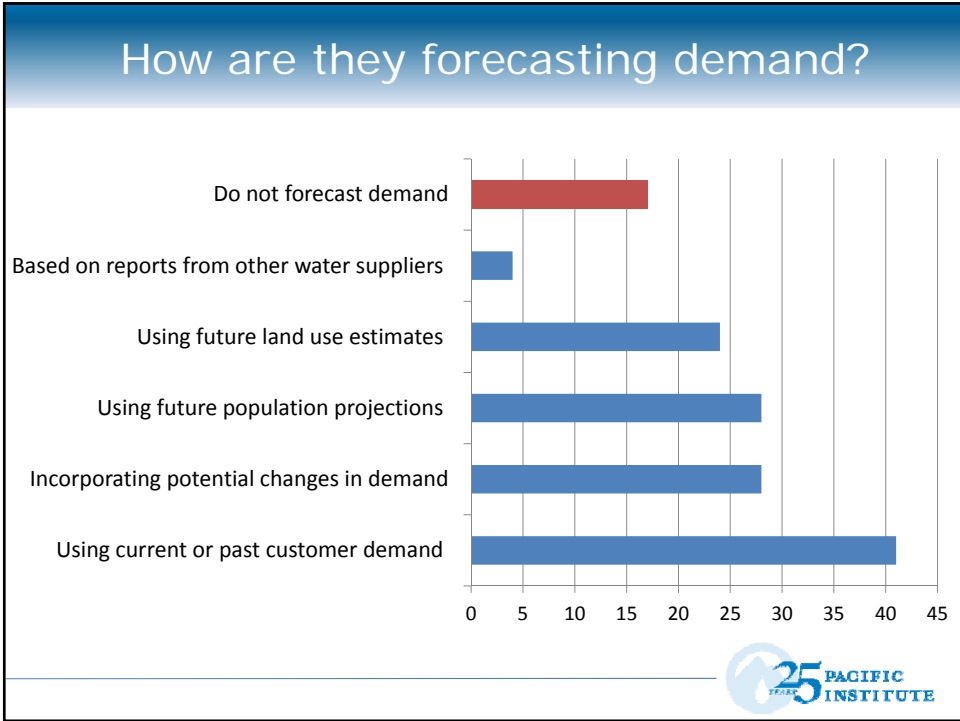
- Planning purposes
- Water rate-setting
- Increased revenue stability



Who is already forecasting demand?

Do you forecast future demand?





New forecasting tool

California Climate and Water to 2100 Calculator

About this workbook

Created by:
Pacific Institute, Oakland, California
<http://www.pacinst.org/>
July 2012

Purpose:
Forecast urban water demand in California to 2100 under a range of scenarios

System Requirements:
Microsoft Excel and Access 2007 or higher.

Contact:
Matthew G. Heberger
mheberger@pacinst.org

Juliet Christian-Smith
juliet@pacinst.org
(510) 251-1600

Key to worksheet tabs:

- Input
- Output
- Calculations
- Data Tables

Worksheet Cells:

- Input parameter
- Formula (do not change)

What does it do?

- Takes into account a series of user-customizable factors to project urban water demand to 2100:
 - Scale
 - Climate
 - Land Use
 - Population
 - Uptake rate of conservation fixtures
 - Landscape factors
 - Uncertainty



Outputs

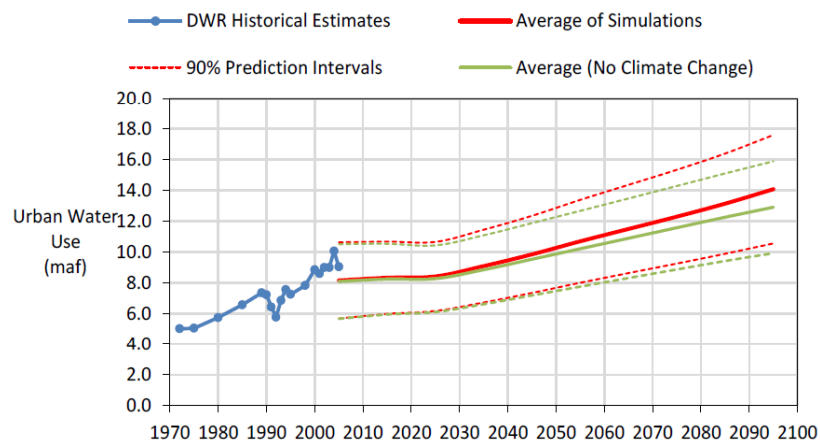


Figure 16. Simulated total water use with 90% prediction intervals for the *Baseline with faster warming* scenario, and the



LIVE DEMO

Download free of charge from:
www.pacinst.org/reports/urban_water_demand_2100

A collage of images related to water and the environment. It includes a large-scale irrigation system in a field, a woman and a man looking at a document, a splash of water, a young girl smiling, a water treatment facility, and a bird drinking from a water source. The Pacific Institute 25th anniversary logo is overlaid on the bottom right of the collage.

654 13th Street, Preservation Park, Oakland, CA 94612
Phone: (510) 251-1600 Email: info@pacinst.org Web: www.pacinst.org