WaterSim: Will there be enough water in Arizona?

Try balancing water supply with demand

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WaterSim is an interactive model of **water supply and demand** for Greater Phoenix. It integrates information about climate, land use, population growth with policy decisions into a decision-support tool designed to help avert crises and **improve the adaptive capacity** of our desert city.

The DCDC is a boundary organization, a place where multiple perspectives from the scientific , professional and public spheres come together to collaborate on social decisions like water management. The DCDC helps plan for climate change with tools like WaterSim to ultimately help bridge the gap between science and policy

- The National Science Foundation (NSF) recognizes that **research cannot remove all uncertainty** from our understanding of climate change and has set up centers like the DCDC across the country to foster decision- making under uncertainty.
- DCDC is a **boundary organization** and works with water managers, scientists and community stakeholders to **foster better decision making for water- management** in the urbanizing desert of central Arizona.
- Visualization can support collaborative decision-making. **WaterSim provides a way of visualizing climate and policy data** so that users can explore plausible futures and consider strategies that are robust across a range of climate conditions.

Supply

Percentages refer to the City of Phoenix's water supply, which has historical rights to CAP water, unlike newer areas which rely more heavily on groundwater

54% Salt / Verde River System

3-10% Groundwater

36% Colorado River/ CAP Canal

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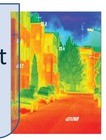
Factors affecting water supply

Potential Impacts of Climate Change:
- Drier
- Hotter
- More Severe Storms

Water Reuse

Drought

Urban Heat Island



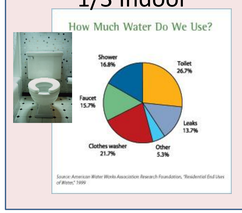
How would you decide?

Demand

In Arizona, agriculture accounts for 70% of water use and residential accounts for 20%

Residential Water Use

1/3 Indoor



2/3 Outdoor

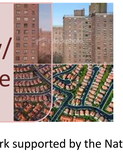
Agricultural Water Use

Factors affecting water demand

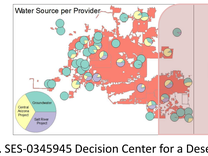
Consumer Choices

Population Growth

Density/ land use



Policy



Fragmented Management Decisions

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