



Living With Less Water:
Summary of Conference by
Institute of Science for Global Policy

May 11, 2016 Pima County LDIG

Purpose of Conference Living with Less Water

- Develop methods of mitigation or adaptation to climate change
- Focus on personal lifestyle choices & collective decisions in a community



Conference Format Facilitating Dialog

- Three debaters introduced key issues
- Caucuses were used to identify
 - Areas of consensus
 - Actionable next steps
- Audience reassembled to collaboratively write outcomes

Debate #1: Drought Impacts Management & Policy

Elaine Wheaton (Adj Prof., Univ. of Saskatchewan, CN):

- **Realities:** fire, erosion, poor water quality, pests, disease, habitat deterioration
- **Science:** drought arrival, impacts, & adaptation
- **Policy:** new technology & overcome barriers:
 - lack of funding,
 - knowledge resistant to change,
 - apathy, denial, over-confidence

Debate Summary #1

Drought Impacts Management & Policy

- **Realities:**

- Frequency of severe droughts is increasing
- Cause of onset/end is elusive & changing with time

- **Science:**

- Report ET widely
- Translate dense scientific reports into common language

- **Policy:**

- Mitigation – reduce greenhouse gas emissions
- Adaptation – increase resiliency & reduce vulnerability
- Education – teach K-12 about drought & climate change

Debate #2:

Match What Science Can Supply with Decision-maker Demands

Keith Dixon, Research Meteorologist, NOAA

Realities: Communication gaps exist between

- Scientists and policy makers
- Scientists and engineering profession

Science: match supply of climate science with
policy-relevant demands

Policy: Need cross-disciplinary
communication skills to bridge gaps

Debate Summary #2:

Match What Science Can Supply with Decision-maker Demands

Realities:

- climate translators need 1st hand experience with political process
- Significant information provided by media is inaccurate due to lack of trained journalists

Science:

- climate translators are not valued so the pool is small

Policy:

- Create incentives for climate translators
- Develop a certification program for non-scientists involved in climate change

Debate #3: Management During Climate Change

Sharon Megdal (Director, WRRC)

Realities: Water is scarce and Arizona's water management plans are effective in drought conditions

Colorado River flow in last 14 years is lowest in last 900 years

Science: Desalinization and treatment of wastewater for reuse are methods to be refined

Policy: Balance supply and demand through:

- Conservation and water pricing structures
- Reuse of reclaimed water and rain water
- Desalinization
- Reduce system losses, like leaks

A desert landscape at sunset. The sky is a mix of purple, blue, and orange. In the background, there are mountains with a small sun setting behind them. In the foreground, there is a large saguaro cactus on the right side. The text is overlaid on the left side of the image.

Debate Summary #3: Management During Climate Change

Sharon Megdal (Director, WRRC)

Realities:

- More is needed to meet worst case scenarios

Science:

- Research affect of high water use on riparian habitats

Policy:

- Add laws to protect environment and ecosystem
- Increase political leadership and public awareness to protect existing water rights

Consensus 1

- Tucson and Arizona have effective water management plans in the face of prolonged drought and observed trends of more extreme weather.
- Adapt to CAP water curtailment with:
 - long range strategies
 - short range tactical plans

Consensus 2

- Leadership is critical to proactive water management policies
- Refine plans for the long-term.
- Research the impact of drought on the environment.
- Publicly invest in water education to all in the state, starting in early childhood.

Consensus 3

- On-going education about water availability and conservation should be offered to all state residents and visitors via publicly funded programs and public-private partnerships
- State universities develop robust educational outreach programs.
- Media and ? Ensure relevant, accurate information about water issues is easily available.
- Community-wide conservation

Consensus 4

- Climate science is a process of inquiry, not absolute truth and is not determine the best policies for the community.

Consensus 5

- Actions can be taken to:
 - Reduce water usage
 - Increase water sources

Actionable Next Steps - Examples

Individual actions

- Pay higher water rates to fund infrastructure or encourage conservation
- Pay higher rates or taxes to fund education about water at all levels of society.

Community Actions

- Utilize expertise of universities and experts to devise water programs and policies. Ensure all policymakers are all utilizing the same scientifically credible and current data.

Regional/State Actions

- Manage groundwater and surface water as a single resource.
- Incentivize decreased usage of scarce resources

For more information...

<http://scienceforglobalpolicy.org/conference/tucson-living-with-less-water/>

