WATARID 3, Paris 2011

Africa
U.S.
Russia
China
France
Iran
MIDEAST
Japan
EGYPT
Topic Highlights

Design and implementation of Taihu Lake Basin water-quality management system based on TMML

Climate change impact on water resources in arid regions of Russia
The role of groundwater dams in providing water in arid and semiarid areas

Irrigation waters and behaviour of cultures under palm trees in the Oued-Righ oases (south-east of Algeria)
Economic, social and environmental justification study of Dehdasht City’s sewage project [Iran]

The management of water in the Etang de Montady: Historical perspective and current issues
Integrated water resources management for a good carrying capacity of population in arid regions

WESTCAS – The Voice of Water Quality in the Arid West

The Arid West is Different!
The Arid West - Defined by Rainfall

Arid West ecosystems are unique in the United States

Average Annual Precipitation
- 0 – 10"
- 10 – 20"
- >20"

www.tucsonforbeginners.com
Critical Issues in the Arid West

- Water Quantity
- Water Quality
- Water Reliability
- Regulatory Challenges
All surface water in the Arid West is fully allocated to federal, state, tribal, municipal or private (farms and ranches) interests.

Groundwater levels are declining across the West.

As a result, effluent has become very valuable as a water source, and regulatory standards for effluent are critical issues!
Arid West Water Quantity – Effluent Utilization

Aquifer recharge

Riparian restoration

Urban uses
Arid West Water Quality

Pollutants

Salinity

Endocrine disrupter compounds (EDCs)

Nutrients

Pesticides

Perchlorate
Arid West Stormwater Quality/Quantity

Erosion hazards / sediment transport

Debris flows and sediment

Wildfires that alter watershed conditions

Inadequate stormwater facilities in urban core
Arid West Water Reliability

Drought

Lake Mead, August 2003 - Elevation 1142 Feet

Lake Mead, Sept 1998 - Elevation 1215 Feet

Photo by Craig Moran, LV Review Journal

Southern Nevada Water Authority
Arid West Regulatory Requirements – Challenges

- Federal regulations restricted local options and solutions to quantity/reliability issues
- Improved science and policy were needed for effluent-dependent and ephemeral streams
Arid West Regulatory Requirements – Challenges

- Clean Water Act standards were largely created for non-arid lands
- 1990 – State and federal regulators considered requiring ephemeral and effluent-dependent streams of the Arid West to meet water quality standards for fishing and swimming
  - Could cost millions of dollars for compliance
  - Extremely high costs for no environmental benefit
1991 – Water and wastewater agencies from throughout the Arid West met in Phoenix, San Diego and Las Vegas to address this regulatory crisis

1992 – WESTCAS formally established with over 100 members from Arizona, Nevada and California
  • Colorado, New Mexico and Texas agencies joined later
  • First grassroots organization to focus on regional Arid West water quality issues
The WESTCAS Mission is to be...

- The premier, grass-roots organization for providers of water, wastewater and reclaimed water services in the Arid West
- A responsive coalition on behalf of our members and their customers
- A reliable source of information about water quality issues to our members and the public
- An advocate for environmentally sound management of water resources and the protection of public health
- A contributor to policy, regulations, science, legislation, and appropriations on Arid West water quality issues
What Does WESTCAS Provide?

- A powerful presence in Washington D.C. and in federal, regional and state regulatory and legislative decision-making
- An effective vehicle for information exchange through meetings and publications
- The opportunity to help draft federal, regional, state and local legislation and regulations about water quality and supply
- A voice to promote awareness of Arid West ecosystems and water quality issues

WORKING TOGETHER
to create policies and practices
for
A SUSTAINABLE WATER FUTURE
How Does WESTCAS Work?

- WESTCAS sponsors three conferences each year with distinguished regional and national speakers, including:
  - Senators and Congressmen
  - Senior officials from federal agencies
    - Environmental Protective Agency (EPA)
    - Agriculture Department
    - Bureau of Reclamation
  - Senior officials from state agencies
    - Water resource departments
    - Regional water boards
  - Renowned authors and scientists
    - Mark Reisner (Cadillac Desert)
WESTCAS has formed coalitions with...

- Association of California Water Agencies (ACWA)
  www.acwa.com

- Texas Water Conservation Association (TWCA)
  www.twca.org

- Federal Water Quality Coalition (FWQC)
  www-fwqc.org

- National Association of Clean Water Agencies (NACWA)
  www.nacwa.org

- Water Environment Federation (WEF)
  www.wef.org

- Water Environment Research Foundation (WERF)
  www.werf.org

- National Water Resources Association (NWRA)
  www.nwra.org

- Clean Water America Alliance
  www.cleanwateramericaalliance.org
WESTCAS Produces...

- Detailed technical and policy papers
  - Comments on federal and state regulations
  - Technical papers on water quality issues
  - Policy papers on federal programs and appropriations
- Testimony on water quality issues
  - State and federal regulatory panels
  - Congressional committees and sub-committees
WESTCAS Produces...

- A Comprehensive website – www.westcas.org
  - State, federal and congressional testimony statements
  - Comments on state and federal legislative and regulatory issues
  - Presentation, news and updates from WESTCAS conferences

- Newsletters
WESTCAS Accomplishments

- 1994 – Initiated the “Arid West Amendments” for the reauthorization of the Clean Water Act
- 1995 – Testified before the Senate Environment and Public Works Committee on Arid West issues
- 1995-2007 – Established the Arid West Water Quality Research Project in Pima County, Arizona, with $5.5 million EPA grant
  - Research and science for ephemeral and effluent-dependent streams in the Arid West
  - Nutrients, arsenic, perchlorate, hexavalent chromium, mercury and selenium
WESTCAS Accomplishments

- 2005-present – Support ongoing research at the University of Arizona and other centers on contaminants of emerging concern (CECs) such as pharmaceuticals and personal care products
- 2009-present – Develop and advocate for Arid West Wastewater Grants Program as part of National Water Trust Fund proposal
WESTCAS – Recipe for Success

- Grassroots origin
  - Membership and conference fees are affordable
  - Continually recruiting new members, while long-time members provide continuity and community
  - Program and project information are shared with member agencies

- High profile conferences and speakers

JOIN WESTCAS!

New for 2011! WESTCAS is now offering a “Get to Know Us” rate for 2011. Current non-members may join now at the Regular or Associate Member levels and receive a special 50% discount on dues for 2011 - just note the special rate on your application. Offer valid for first time members only. Click an Membership Brochure below for details.

Please see the attached Membership Brochure and Application. If you have any questions, please contact Dawn Moore at 770-424-0111 or westcas@mindspring.com.
WESTCAS Membership Brochure
WESTCAS Membership Application
WESTCAS – Recipe for Success

- Detailed technical policy papers and presentations
- Strong relationships with federal and state agencies, regulators and elected officials
  - Has a seat at the table for national and regional task forces and work groups
  - Has become an indispensable member of the water/wastewater community in the Arid West

WESTCAS provides a structural and organizational model for successful grassroots involvement in policy and advocacy on a regional basis, which can be utilized by other organizations and agencies
"Good Deserts are hard to find."