Western States Water Council

Yesterday and Today

NAFSMA Annual Meeting

Teton Village, Wyoming
August

Tony Willardson
Executive Director
Western States Water Council
Western States Water Council

- Advisory body to 18 western Governors on water policy issues
- Provides states collective voice
- Fosters collaboration
- Works in close cooperation with the Western Governors’ Association (WGA)
The future growth and prosperity of the western states depend upon the availability of adequate quantities of water of suitable quality.
Water Needs and Strategies for a Sustainable Future

1. Growth and Water Policy
2. Meeting Future Water Demands
3. Water Infrastructure Needs and Strategies
4. Resolution of Indian Water Rights Claims
5. Climate Change Impacts
6. ESA & Protecting Aquatic Species

Western Governors’ Association ♦ June 2006
To encourage sustainable growth policies and plans, states should identify the water demands and impacts associated with future growth.

Additionally, states should develop integrated growth and water resource scenarios so that the consequences of various growth scenarios can be evaluated for both the near and long term.
Western States Federal Agency Support Team

A Declaration of Cooperation

Working Together for the Sustainable and Efficient Use of Western Water Resources

We, as representatives of our respective Federal agencies, do hereby declare our intent to cooperate as members of a Western States Federal Agency Support Team (WESTFAST) partnership. We will work together whenever and wherever possible throughout the 17 Western States to promote and educate the public on the benefits of sustainable and efficient use of water resources.

We declare that WESTFAST supports a continued commitment on the part of Federal, and State organizations; working with local, Tribal, and other stakeholders; to improve the effectiveness of collaboration to seek watershed solutions to water issues in the Western States. This effort emphasizes proactive, voluntary, participatory and incentive-based approaches to water resource management and conservation assistance programs throughout the Western States.

We hereby declare that we as WESTFAST partners will collaborate with the Western States Water Council to guide the development of an appropriate action plan for this partnership.

We hereby declare to support, in concept, the establishment of a Federal liaison position to work with the WESTFAST members and the Western States Water Council in developing a collaborative work plan to carry forward joint water resource initiatives. Contributory cost-sharing such a position will be based on authorized and available funds.
Western states have primary authority and responsibility for the appropriation, allocation, development, conservation and protection of water resources.
Federal Regulatory Issues

- EPA Waters of the United States Rule
- Treatment of Tribes as States under the CWA
- EPA Water Transfers Rule
- USFS Ground Water Directive
- USFS Ski Area Water Rights
- USBR Water Pricing Policies
- Corps Surplus Water and Water Pricing Policies
- FERC Hydro Relicensing
- BLM Fracking Rules
- Federal Reserved Rights and other federal water needs
- Tribal Reserved Water Rights
- Endangered Species Act Protections
Federal Water Policy Development

- Legislation
- Programs
- Policies
- Rules
- Regulations
- Directives
- Orders

- Shifting Social Values & Norms
- Questions of Legislative Intent
- Define Needs & Objectives
- Focus on Results
- Break Down Silos
- Maximize Efficient Use of Resources
- Develop Effective Partnerships
- Better Define Roles & Responsibilities
• Increasingly federal regulatory initiatives and directives threaten principles of federalism
• Appropriately balance government responsibilities
• Recognize the authority of the States to govern
• Require substantive consultation with States
• State consultation should take place early in the policy development process
• Water rights are private property, protected and regulated under State law
• Water quantity regulation and management are the prerogatives of States
Recognizing the importance of preparing for climate extremes, the Western Governors’ Association and the National Oceanic and Atmospheric Administration (NOAA) signed a memorandum of understanding in 2011 which called for undertaking projects to help reduce disaster risks associated with extreme events.

The Western States Water Council supports developing an improved observing system for extreme precipitation events in the West (position #352, readopted June 2013).

A better ability to forecast the timing and amount of precipitation expected from major storms will benefit flood management, emergency response, and traffic operations programs, as well as state, federal, and local reservoir managers and coastal resources managers.
“Many effective programs are underway to measure aspects of our water resources. However, simply stated, quantitative knowledge of U.S. water supply is currently inadequate.” (2007)

The United States should:

(1) Accurately assess the quantity and quality of its water resources;
(2) Accurately measure how water is used;
(3) Know how water supply and use change over time;
(4) Measure water resources more strategically and efficiently.
WSWC Positions

Strongly Support Federal Spending for Basic Water Data Gathering/Distribution
Supports developing an improved observing system for extreme precipitation events
Support NRCS snow survey program funding
Support USGS National Water Use and Availability Study (and WaterSMART)
Strongly Support Landsat Data Continuity Mission (LDCM) and USGS/NASA Budget
Support NOAA National Integrated Drought Information System/Regional Integrated Science Assessments
Atmospheric Rivers
HMT-Legacy Project is deploying a 21st-century observing system to bear on the State of CA's water resource and flood protection issues.
Vegetation, Water and ET are variable in space and time.

Major Irrigated areas in Idaho and areas of METRIC application.
Why use High Resolution Imagery?

ET from Landsat 5 with thermal sharpened to 30 m

$K_c = \frac{ET_{act}}{ET_{ref}}$

ET from individual fields is essential for: Water Rights, Water Transfers, Farm Water Management
TODAY, SATELLITES PROVIDE A NEW GLOBAL PERSPECTIVE ON THE WATER CYCLE

The Earth Observing System -- systematic measurement of interactions among land, oceans, atmosphere, ice & life

Exploratory missions to probe key Earth system processes globally for the first time

Operational weather services missions for NOAA

Operational precursor / Technology demos

*FY02 launch (+ SAGE III)
^FY03 launch (+SeaWinds)
Priority State & Federal Actions

• Increase support/funding for data
• Identify and close data gaps
• Gather/disseminate real-time data
• Foster remote sensing capabilities
• Reduce costs through innovation
Data Issues

Forecast skills and abilities? “All forecasts are wrong!”
Improving seasonal and interannual forecasts?
Value of insitu measurements & remote sensing?
How do we balance both types of data?
Calibration and level of confidence?
Modeling and data needs? (Phantom Models?)
Spatial and temporal data needs (frequency)?
Real time data needs? Data accessibility for forecasts?
Extrapolating data and future trends?
Death of stationarity? Paleoclimate data?
Water Data Exchange

Representational State Transfer (REST) Endpoint
http://www.state.us/webse rvices/GetSummary
REPORT – 2013 – Details

Allocation Data
- Owner
- Beneficial Use
- Status
- Priority Date

Diversions
Uses (withdrawal/consumptive)

Return Flows

FUTURE STEPS:
States plugged in, streamgauging, etc. federal data, too.

XML Developer's Guide
- Author: Gambardella, Matthew
- Title: XML Developer's Guide
- Genre: Computer
- Price: $44.95
- Publish date: 2000-10-01
- Description: An in-depth look at creating apps with XML.

Midnight Rain
- Author: Ralls, Kim
- Title: Midnight Rain
- Genre: Fantasy
- Price: $5.95
- Publish date: 2000-12-16
- Description: A former architect battles corporate evil sorceress, and her own childhood to be...
WHAT WILL IT PROVIDE?

Water Supply Summary: 24,000 acre-feet

Regulatory Summary:
- Groundwater Management Area
- Minimum Instream Flow Requirements

Water Use Summary: 2,850 acre-feet

Availability Summary: 7,550 acre-feet
Federal, state, tribal and local governments face significant challenges in addressing their infrastructure needs.

Investing to support the availability of clean water is a key to continued economic growth.

Water stress is becoming a concern for investors.
Water projects are becoming increasingly more complex and difficult to design, permit, build and finance.

Balancing economic benefits with environmental protection is important, but should be streamlined so as not to impose unnecessary scheduling and cost problems.
Keys to Future Infrastructure Development

- Encourage conservation and efficient use
- Identify and quantify water infrastructure needs
- Promote asset management and capital budgeting
- Summary of state financing and funding authorities
- Promote more public and private investment
- Support appropriate federal investments
- Provide jobs and economic security
- Facilitate timely construction of projects
- Environmentally responsible development
- Streamline regulatory requirements
Meeting Future Water Demands

More storage and innovative options
Flood Control Reservoir Reoperations
Innovative Stormwater Management
Water Recycling and Reuse
Desalination
Weather Mod
Project Hurdles

- Water Availability/Scarcity in General
- Lack of Data on Existing/Future Water Needs
- State/Tribal/Federal Water Right Adjudications
- Regulatory Certainty (Reasonable)
- Instreamflow & Environmental Protections
- Endangered Species & State Water Rights
- Clean Water Act regulations
  - Waters of the United States Rulemaking (404)
  - EPA Water Transfers Rule (NYDC decision)
  - CWA State 401 Certification Authority (NHA)
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