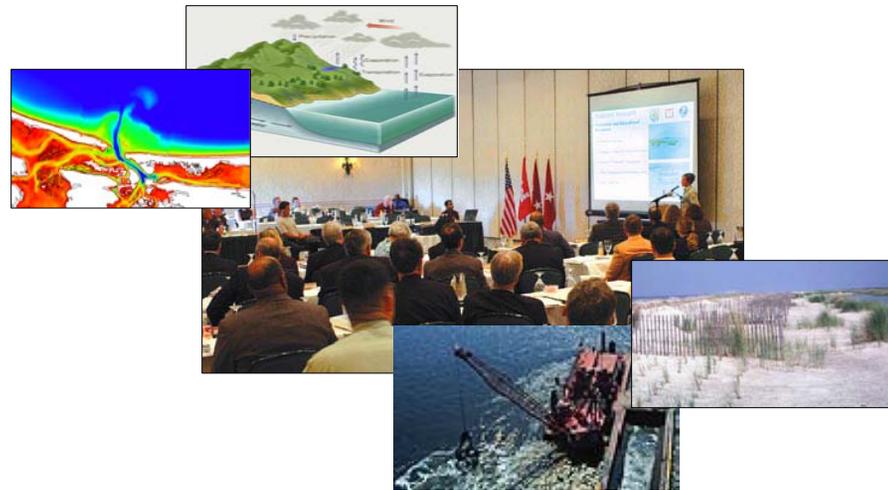




US Army Corps of Engineers



Western States Watershed Study



85th Meeting of the
Coastal Engineering Research Board

24 September 2008

Pacesetters – Building Strong!



Study Advisory Team

Martin Hudson (NWD)
Steve Bredthauer (NWD)



Craig Bell, Exec. Dir.
Tony Willardson, Deputy

Meredith Peterson (SPD)
Scott Stoddard (SPK)

Lanora Wright (SWD)



Shared Vision Partnership Agreement for, the WESTERN STATES WATERSHED STUDY

Purpose:

To promote and facilitate a long term working and collaborative relationship between participants at the State, Federal, and local levels to develop the Western States Watershed Study.

This is an unaffiliated 17 Division, So collectively

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We pledge to work together as a Watershed Study Team and meet in partnering sessions as needed. We also commit to developing a subsequent collaborative action plan with specific initiatives and measurable milestones to be reviewed on an annual basis.

It is understood that this agreement supports the parties' cooperation for a comprehensive analysis examining multi-jurisdictional use and management of water resources on a watershed or regional scale. This is not a funding obligating or fiscal document. Any exchange of funds or other tangible resources in furthering the purposes of the partnering agreement will require execution of a separate written agreement in accordance with applicable law. Nothing in this agreement will be construed as affecting the authorities of the participants to act as provided by statute or regulation or as binding beyond their respective authorities or to require the participants to obligate or expend funds in excess of available appropriations.

Effective Date:

This agreement may be reviewed periodically to renew the Parties' commitment and to consider changes that might be needed. Amendments will be made in the spirit of cooperation and partnership by agreement of the signatories. It will remain effective until the Parties agree to terminate it by consensus.

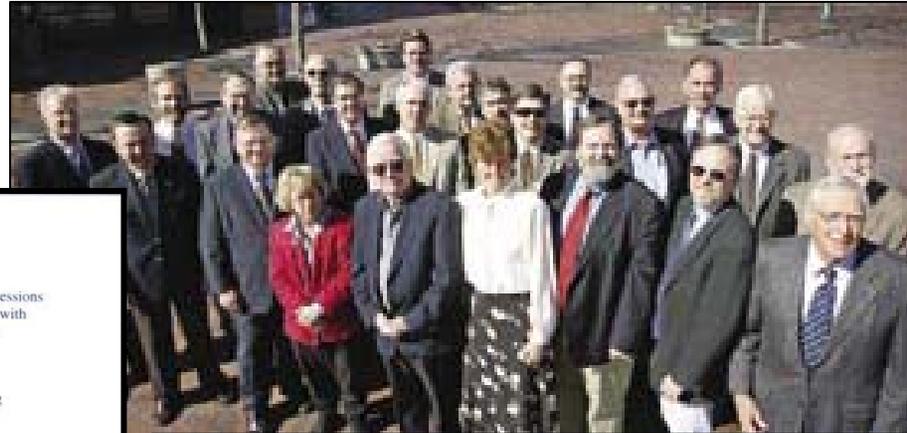

Duane Smith
Chairman, Western States Water Council

Date 10/5/06




Don T. Riley
Major General, US Army
Director of Civil Works

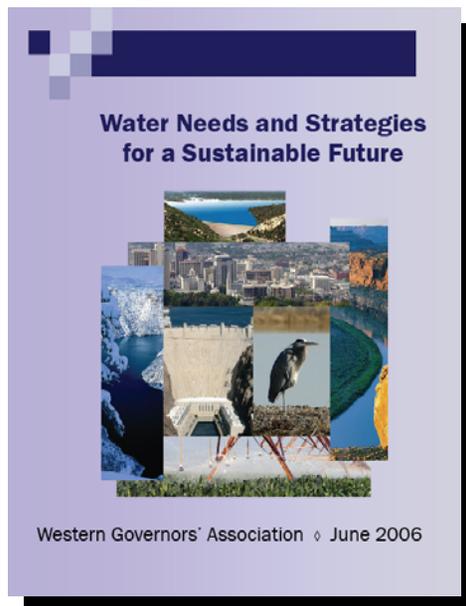
Date 12/20/06



An October 2006 Shared Vision Partnership Agreement with the Western States Water Council (WSWC), signed by Mr. Duane Smith (past WSWC Chairman) and MG Don T. Riley, defined the Study goals.

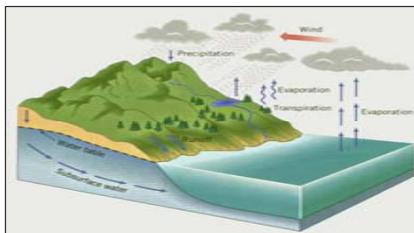


“Planning Assistance to States” type study scope based on several recommendations contained in the Western Governors’ Association (WGA) / WSWC June 2006 Report.



Study Topics:

- Water Data Collection
- Drought, Climate Change
- Watershed Tools/Collaborative Planning
- Asset Management
- Federal Resources and Collaboration
- Policy and Programs

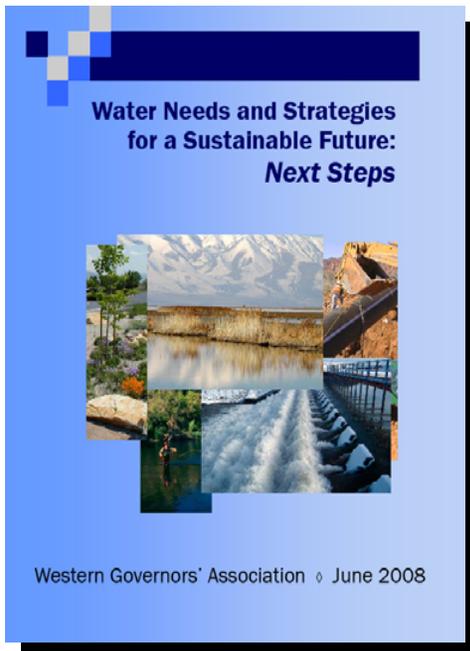


Some of these are common topics of interest associated with coastal issues



USACE Team and Technical Leads

Topic	Team Lead(s)	Technical Lead(s)
Shared Vision Partnership Agreement	Alicia Austin Johnson (SPA – formally NWS)	Chuck Moeslein (HQ) David Shepp (HQ)
Water Data Collection, Drought, Climate Change	Marcia Hackett (SWF)	Dr. Rolf Olsen (IWR)
Watershed Tools and Collaborative Planning	Alicia Austin Johnson (SPA) Bill Miller (part time, SPL)	Dr. Steve Ashby (ERDC – SWWRP GIS Toolbar) Dr. Hal Cardwell (IWR – Shared Vision Planning) Chandler Peter (NWO Regulatory)
Asset Management	Technical Research: Steve Bredthauer (NWD) and Gene Lilly (SWT). MCDA case study report: Dr. Burton Suedel, ERDC	
Federal Resources and Collaboration	Alicia Austin Johnson (SPA)	Lynn Martin (IWR) Ron Kneebone (SPA Tribal Liaison)
Policy and Programs	WSWC (Refer to June 2008 <u>Water Needs and Strategies for a Sustainable Future: Next Steps</u> report) and Gene Lilly (SWT).	
Regulatory Short Summary	Scott Stoddard (SPK)	

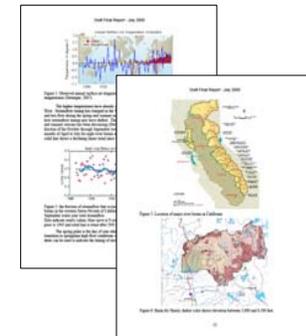


- WSWC used selected information from the study for their follow-on June 2008 report.
- Report recommendations do not represent positions of any federal agency but rather provide information useful for a range of applications and decision makers.



Summary of Study Products

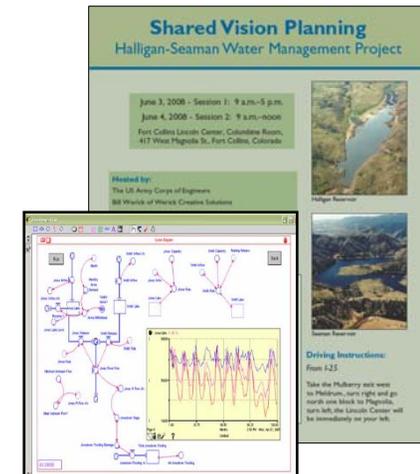
- Shared Vision Partnership Agreement.
- Various technical and summary reports (majority developed with multi-organization input/collaboration) associated with water data collection, drought, climate change, watershed tools/collaborative planning, federal resources/collaboration, asset management, and policy/programs.





Summary of Study Products

- Engineering Research and Development Center (ERDC) System Wide Water Resources Program (SWWRP) Arc GIS Toolbar technology transfer to Utah State University.
- Institute for Water Resources (IWR) pilot Shared Vision Planning Process/Model applied to Regulatory component activities at Greeley/Ft. Collins, Colorado (workshop and 1st phase of collaborative model development completed).





• Other Shared Vision Planning (SVP) products associated with Regulatory activities include a pamphlet and video (refer to www.SharedVisionPlanning.us)

SVP case studies in the West

Why Use SVP?

- Improve predictability with respect to issue identification and reaction to impacts from the Corps and from Federal Agencies
- Improve issue resolution
- Reduce controversy during the review process and at the presentation of the permit decision
- Increase the reliability of answers to resource questions.
- Reduce the chances for supplemental DEIS by identifying and addressing issues upfront.
- Improve early issue identification
- Support or rebuke findings of no significance (FONSI).
- Develop a project constituency.
- Improve trust among stakeholders.
- Improve information sharing.

Current Case Studies

- Cache la Poudre, CO
- Willamette, OR
- James River, VA
- Upper Great Lakes, US & Canada
- Connecticut River, New England

Want More Info?

- Description of Cache la Poudre pilot on SVP for 404 water supply permit.
 - White Paper "Shared Vision Planning Applied to Regulatory Decisions"
 - Video & workshop summary on SVP in 404 & Water Supply
 - Visualization Primer and Tutorials
 - Case Studies, Background, References, links
- www.SharedVisionPlanning.us



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 Kerry Redican, Institute for Water Resources
 (703) 428-9088
Kerry.M.Redican@usace.army.mil



US Army Corps of Engineers

Shared Vision Planning



Shared Vision Planning integrates

- tried-and-true Planning principles
- systems modeling
- collaboration

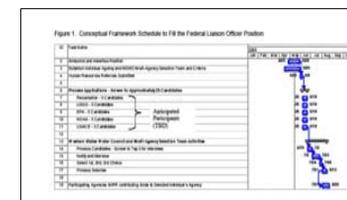
into a practical forum for making water resource management decisions.

www.SharedVisionPlanning.us



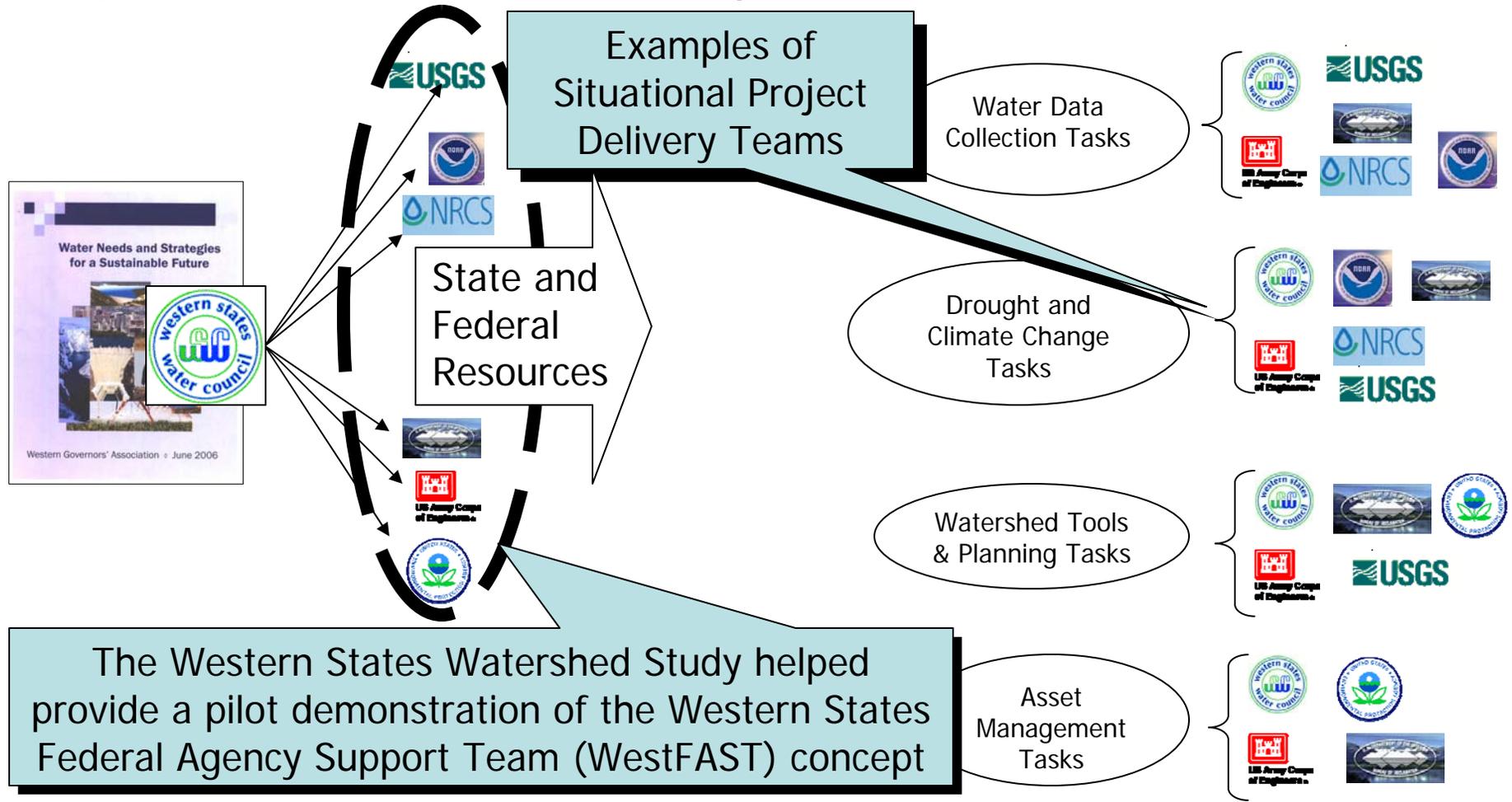
Summary of Study Products

- Pilot Regulatory Short Summary (developed for the State of Utah but provides a potential template for other states).
- Memorandum report on ideas for collaboration with multiple Tribes on regional water resource topics.
- Project Management Plan for the Western States Water Council Federal Liaison Officer selection process (Ms. Jonne Hower, Reclamation, was selected).



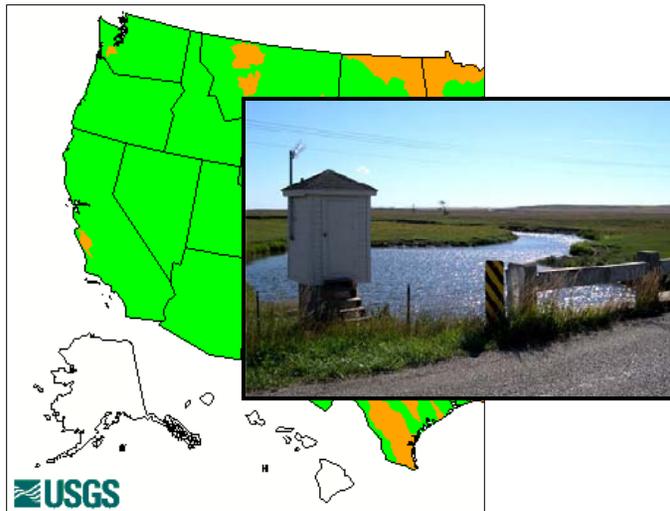


Approach for Multi-Organization Collaboration





Water Data Collection



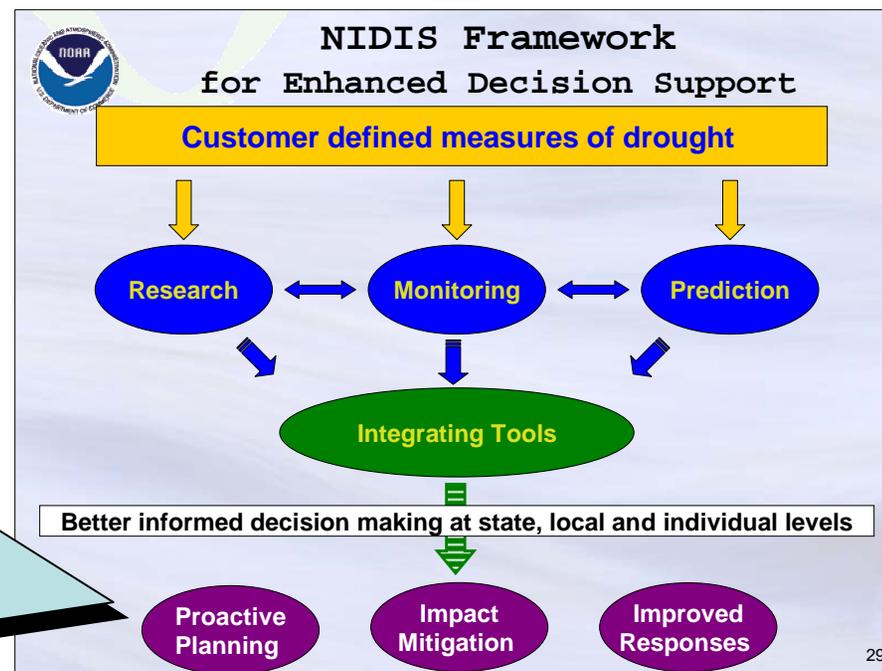
- Report on existing status and strategic plan to maintain and improve the collection of basic water data.

Explanation - Percentile classes							
	<10	10-24	25-75	76-90	≥90		
Low	Much below normal	Below normal	Normal	Above normal	Much above normal	High	No Data



Drought

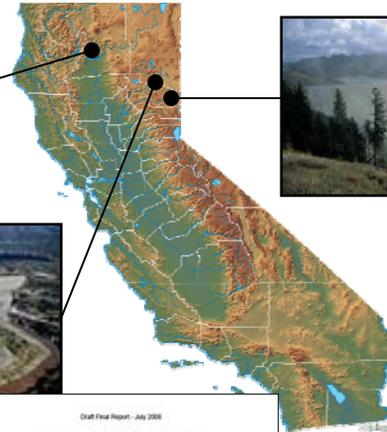
Pilot strategic plan to enhance the Corps' preparation and response to support the implementation of the National Integrated Drought Information System (NIDIS).



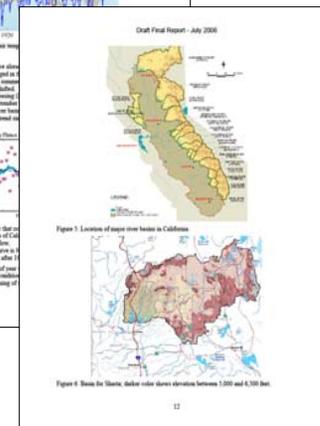
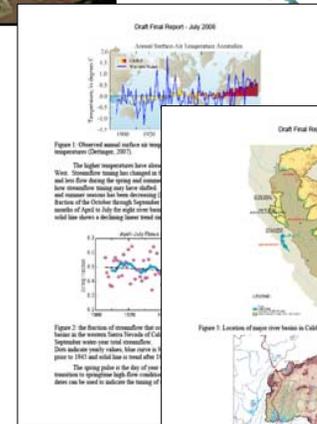


Climate Change

The pilot study included 3 reservoirs in the Sacramento River basin



Report on a process that could be used to modify reservoir rule curves to help mitigate loss of snowpack storage.





Climate Change

- Multi-Agency Memorandum authorizes senior staff from agencies to cooperate in work to adapt water program management to reflect changing climate conditions.

MEMORANDUM

SUBJECT: Federal Agency Cooperation on Adaptation of Water-Related Programs to the Impacts of Climate Change

FROM: Benjamin J. Grumbine, Assistant Administrator for Water, U.S. Environmental Protection Agency

TO: VADM Conrad Lautenbacher, Jr., Under Secretary and Administrator, National Oceanic and Atmospheric Administration, U.S. Department of Commerce; John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works, U.S. Department of Defense; Mark Rey, Under Secretary for National Resources and the Environment, U.S. Department of Agriculture; Katherine Osley, Acting Assistant Secretary for Water and Science, U.S. Department of Interior

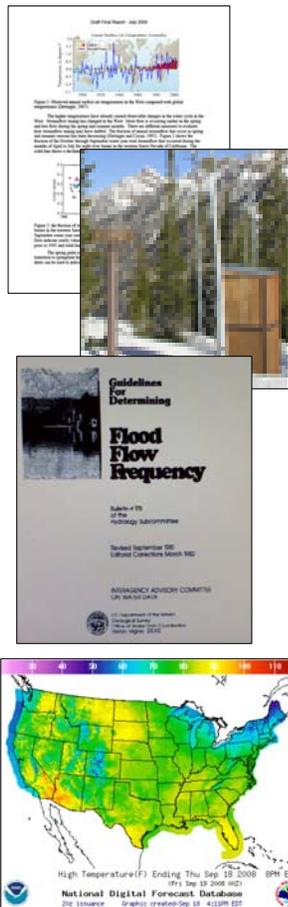
FOR: Agency Senior Staff (see addressees below)

Future climate

Current climate



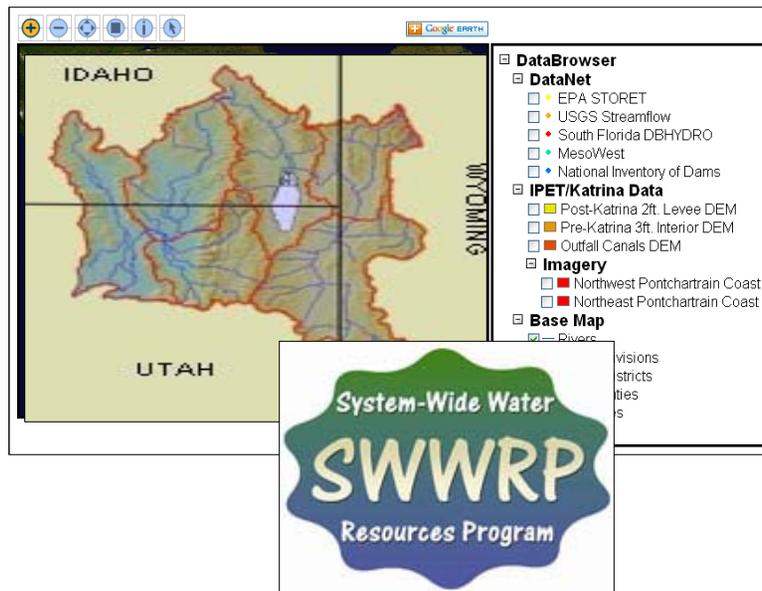
Stakeholders at workshops have indicated that the following is needed for climate change adaptation:



- Evaluation of opportunities to modify Corps reservoir rule curves and reallocation of storage scenarios to support adaptation.
- Comprehensive evaluation of monitoring and data collection needs associated with climate change.
- Better understanding of rainfall runoff relationships and development of new hydrologic design standards (USGS publication 17B).
- Improvements to weather and climate forecasting.
- Others?



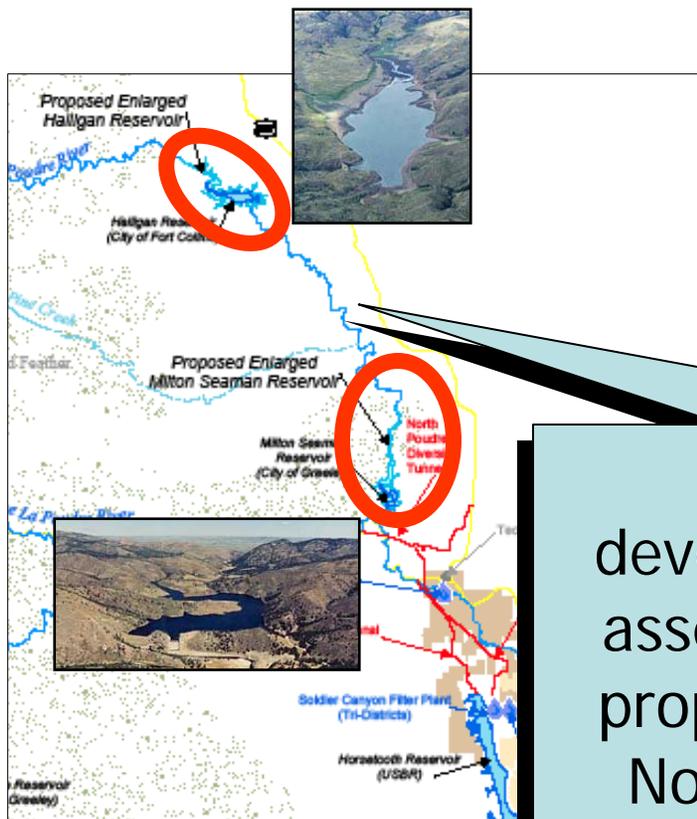
Watershed Tools and Collaborative Planning



- Report on the Bear River Basin case study of successful on-going collaboration between states, lessons learned, and a pilot demonstration of the ERDC's SWWRP Arc GIS Toolbar technology used by Utah State University.



Watershed Tools and Collaborative Planning



- On-going pilot demonstration of the potential application of Shared Vision Planning (SVP) to the Corps Regulatory process.

IWR and Stakeholder Phase I development of a SVP model to help assess managed flows between two proposed enlarged reservoirs on the North Fork of the Cache la Poudre River, Colorado is completed.

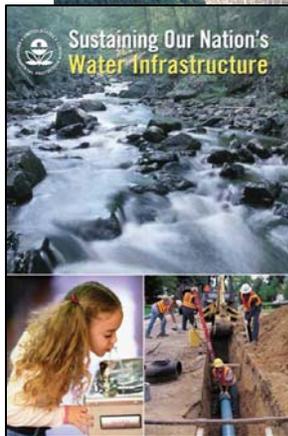
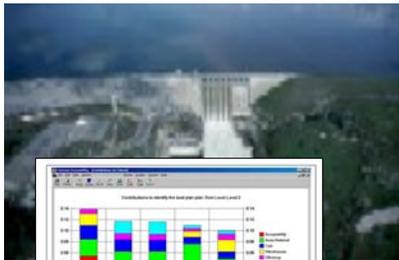


Asset Management

Report on:

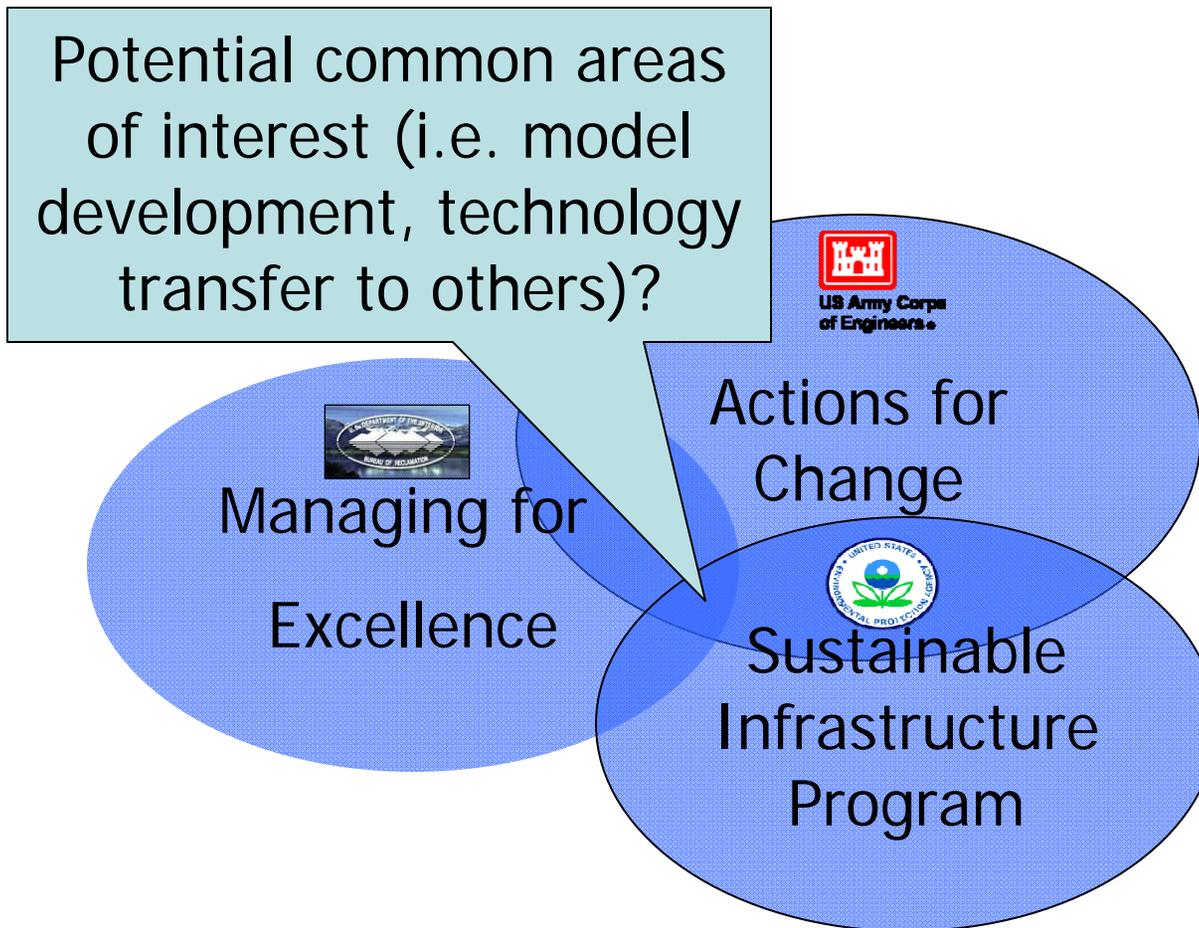
- Concepts for Reclamation/ Corps/EPA collaboration associated with development of federal Asset Management (AM) systems approach expertise and technology transfer to states.

- Concepts for integrating AM planning with consideration of: 1) reservoir storage reallocation/system operation changes, 2) Regional Sediment Management scenarios, 3) climate change scenarios and 4) others?





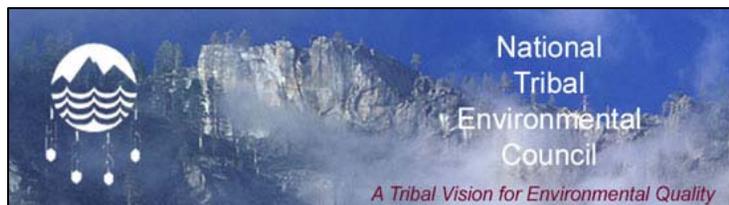
Multi-Organization Asset Management Planning





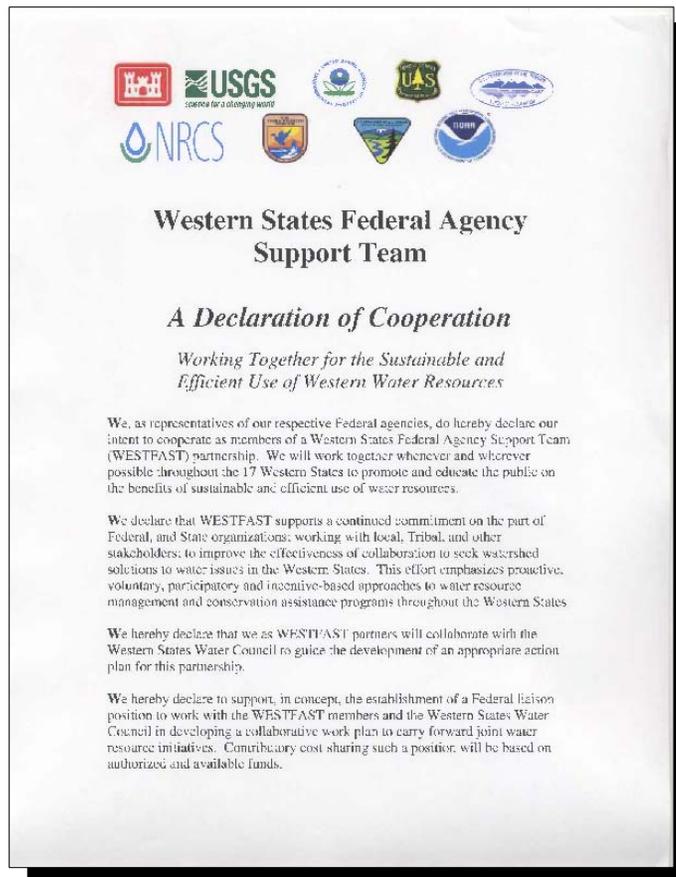
Federal Resources and Collaboration

- Memorandum report identifying and examining venues, such as the 2007 and 2008 National Tribal Environmental Council conferences, to enhance federal agency collaboration with multiple tribes on addressing regional topics such as drought, climate change, etc.



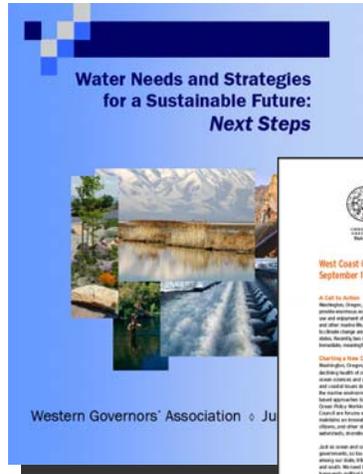


Federal Resources and Collaboration

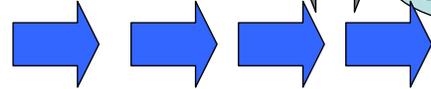


- Examination of case studies on federal and state agency collaboration in support to locally-led watershed studies.
- Information useful for WSWC-led efforts associated with the WestFAST (efforts underway to formalize), Federal Liaison Officer, and other watershed initiatives.

States provide the pivotal role in the grassroots approach to water resources planning.



Local Plans



State Plans

Regional and Tribal Information / Plans

- WA
- ID
- MT
- OR
- CA
- ND
- SD
- NE
- KS
- NV
- UT
- WY
- CO
- NM
- AZ
- TX
- OK

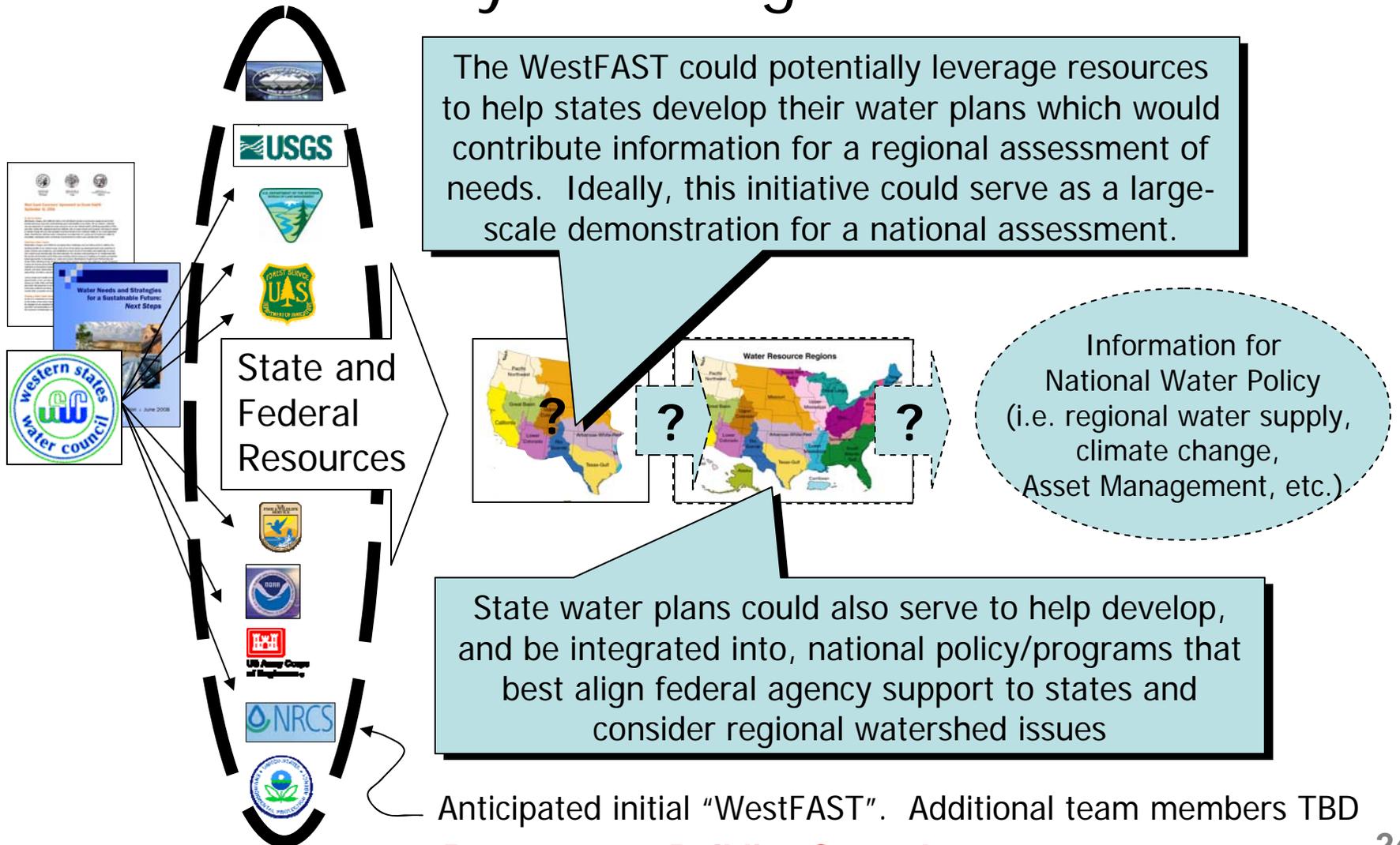
- Pacific NW
- California
- Missouri
- Great Basin
- Upper Colorado
- Rio Grande
- Lower Colorado
- Texas-Gulf
- Ark.-White-Red

Regional, i.e. coastal, issues are candidates for initiatives that promote the shared development of solutions

Graphic illustration of water region and state political boundary interactions in the West.



Potential Policy and Programs Initiatives?

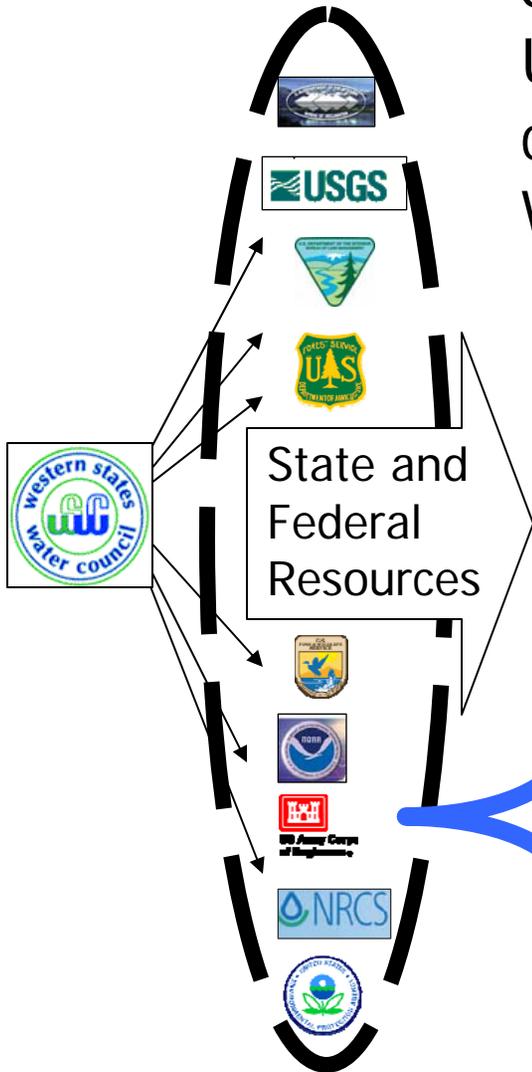


Anticipated initial "WestFAST". Additional team members TBD

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Senior Leader proponents associated with USACE water resources planning and other coordinated technical support to the WestFAST initiative:



- Dr. Steve Stockton, Deputy Director of Civil Works, HQ.



- Mr. Mike Fallon, Director of Southwestern Division Programs, WestFAST member.



- Mr. Robert Pietrowsky, Director of IWR.



- Dr. Beth Fleming, Director of the Environmental Laboratory, ERDC.



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US Army Corps of Engineers



Western States Watershed Study



Graphics courtesy of New Mexico, USGS, and USACE websites

Thank You.....
Questions?

Gene Lilly, Project Manager

Douglas.E.Lilly@usace.army.mil

918-669-7196

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