

**Western States Federal Agency Support Team
CY 2009 Work Plan**

In support of
Water Needs and Strategies for a Sustainable Future: Next Steps

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.

- An excerpt from *Declaration of Cooperation, signed by 9 agencies in 2008*

The Western States Water Council (WSWC) and federal agencies having water resource responsibilities in the West (Bureau of Reclamation, Environmental Protection Agency, National Oceanic Atmospheric Administration, USDA Forest Service, Bureau of Land Management, U.S. Army Corps of Engineers, U.S. Geological Survey, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service) have formalized a collaborative partnership. Representatives from the federal agencies, collectively referred to as “Western States Federal Agency Support Team (WestFAST) have proposed the following Work Plan which identifies actions which will provide support to the WSWC in implementing *Water Needs and Strategies for a Sustainable Future: Next Steps*.

WestFAST agencies will rely on WSWC members and staff to identify opportunities in member’s states or within river basins to implement specific objectives identified in this Work Plan. Additionally, WestFAST agencies will rely on WSWC staff to facilitate communication and collaboration between WestFAST members and the WestFAST Liaison and WSWC members.

Although WestFAST agencies have limited opportunity to re-direct their current appropriations, WestFAST representatives looked at the broadest scope for collaboration, integration, and economies of scale. The following work plan is a result of identifying opportunities for utilizing existing authorities and/or programs. In some instances, activities proposed for one objective may further another objective. In addition, WestFAST representatives have looked for opportunities for horizontal integration among or between agencies. WestFAST representatives identified activities that provided an opportunity for collaboration and synergy; those are presented below. However, WestFAST agencies did not stop there. Agencies are pursuing, individually or in partnership with other agencies, activities to implement additional objectives identified in the *Next Steps* report.

WestFAST agencies acknowledge the innovative and ground-breaking model of collaboration and cooperation identified in the Western Governors’ Association 2008 report *Water Needs and Strategies for a Sustainable Future: Next Steps 1*. In collaborative planning meetings, WestFAST representatives identified areas in the *Next Steps* report where most, or all, WestFAST agencies had programs, projects, or initiatives underway. Activities identified in the

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following Work Plan are identified to provide specific support to accomplish objectives in the *Next Steps* report; however, WestFAST agencies are pledged to provide on-going, interactive, collaborative support to WSWC. All objectives identified below are quoted from the *Next Steps* Executive Summary or Foreword. For ease in cross-referencing, the page number for each objective from the *Next Steps, 2008*, report follows the objective description.

WestFAST SUPPORT

Objective “1. Western States Water Council should enter into a formal agreement to create a ‘Western States Federal Agency Support Team’ made up of representatives of federal agencies having water resource responsibilities and create a WSWC ‘liaison position’ to facilitate collaboration.” (*Next Steps, 2008; page I*)

Work to Date: WestFAST agencies signed a Memo of Cooperation pledging their support to work with the western states through the WSWC. Agencies have appointed members to serve on the WestFAST. The WestFAST agencies have advertised, funded, and, in consultation with WSWC, detailed a Liaison to WSWC offices. WestFAST is a dynamic, flexible team that provides the opportunity for interaction initiated by WSWC, individual states, or the federal government. WestFAST members stand prepared to engage WSWC members in collaboration and problem-solving with their requests and on new and emerging issues.

2009: WestFAST representatives will engage in on-going discussions within the WestFAST team, with other WestFAST agencies, between WestFAST and WSWC, and with WSWC member states. The WestFAST Liaison will facilitate collaboration between WSWC staff and members and WestFAST by providing background information on Agency and Department objectives, initiatives, and budgeting processes and timelines and by organizing opportunities for workshops and discussions regarding Agency and Department programs and proposals. Briefings by WSWC staff and members for agency and/or department heads will be scheduled in early March 2009. **Lead: WestFAST Liaison.**

CLIMATE CHANGE IMPACTS

There are a number of items under this functional area of the *Next Steps* Report. The objectives where WestFAST will have the most influence from the federal perspective are identified below.

A. Objective “31. Federal agencies should begin a systematic updating of their respective reservoir operating plans and drought contingency plans to assure that operating plans are adaptable to a changing climate.” (*Next Steps, 2008; page VI*)

Work to Date: USACE and California water managers met in spring, 2007 to discuss climate change, reservoir operating plans, and flood control rule curves. The interim conclusions of these meetings were that USACE should identify projects for reallocation studies. And that USACE should complete a paper on alternative funding arrangements for reallocations.

2009: WestFAST will engage federal, state, and local entities to develop a strategy to update and/or revise reservoir operating plans as a result of changing hydrologic conditions. This pilot project will focus on reservoirs and/or projects in a state identified by WSWC. **Lead: USACE and Reclamation.**

B. Objective “32. The National Oceanic and Atmospheric Administration should take the lead in improving forecasts on multiple geographic and temporal scales and conduct additional research in collaboration with water management agencies so that forecasts can be incorporated into reservoir operations.” (*Next Steps, 2008; page VI*)

Work to Date: In 2004, the Western Governors’ Association developed a set of requirements, through a broad-based team of federal and non-federal partners, for a National Integrated Drought Information System (NIDIS.) To implement the National Integrated Drought Information System Act of 2006 (PL109-430), the NIDIS has a national-level interagency Executive Council, which oversees an implementation team, comprised of representatives from more than 40 federal and state agencies, academic institutions, and tribal and private entities.

2009: Over the next five years, NIDIS will build on its successes through a more thorough coordination of relevant monitoring, forecasting, educational and impact assessment efforts tailored to watersheds (e.g., basin-scale management, interbasin transfers, ecosystem impacts in the Colorado Basin); regions (e.g., Southeast Georgia, Alabama, Florida, North and South Carolina); coastal (Chesapeake Bay); and local levels (Lower Great Plains counties). **Lead: NOAA with support from WestFAST agencies.**

C. Objective “33. The USGS, in cooperation with states, should improve monitoring and data collection to identify and respond to changing regional and local trends, and allow for better early warning systems that (a) focus on critical or vulnerable systems; (b) deliver real-time data; (c) improve data access, storage and retrieval; (d) allow for real-time ‘smart’ analysis; and (e) provide feedback and evaluation.” (*Next Steps, 2008; page VI*)

Work to Date: USGS has been involved in research focused on effects of climate change on wildlife, changes in snow melt, temperatures in the Colorado River, and groundwater recharge.

2009: WestFAST will complete an inventory of climate change programs underway in WestFAST agencies and identify opportunities for developing adaptive management strategies to utilize climate change research. This inventory will include, but not be limited to, identification of climate research and development programs and programs designed to facilitate information and technology transfer from researchers to on-the-ground managers. **Lead: USGS and BLM.**

D. Objective “34. The federal government, in cooperation with states, should take the lead in putting together a web site to provide more useful and scaled output from climate models for the water management community.” (*Next Steps, 2008; page VII*)

Work to Date: The NIDIS Act of 2006 (PL 109-430) identified an interagency approach to improve drought monitoring, forecasting and early warning. The U.S. Drought Portal (www.drought.gov) has been developed as a national resource for data, models, risk information

and impacts of drought, with responsibility for integrating, archiving, and disseminating data via the Internet.

2009: WestFAST agencies will explore the possibility of pilot testing a climate change information site in conjunction with the NIDIS U.S. Drought Portal (www.drought.gov) and the National Climate Portal (in development), including climate and impacts projections at global, regional and watershed scales of relevance to Western States. **Lead: NOAA**

E. Objective “35. Water managers should take the initiative to clearly communicate their needs for applied science to the climate research community, and must seek opportunities to guide hydroclimate research in directions that will support real-world problem solving.” (*Next Steps, 2008; page VII*)

Work to Date: N/A

2009:

1) Improve WestFAST and WSWC engagement with the federal agency climate change research groups, such as Climate Change and Western Water Group (CCAWWG – formed by Reclamation, NOAA, USGS and USACE) focused on Western water to:

- Better provide scientific collaborations in support of Western water management as climate changes.
- Better facilitate collaboration and exchange of needs, technologies, and information with state, local, and agricultural water entities.
- Define the common federal and Western state research priorities most relevant to western water managers and practitioners. **Lead: Reclamation, NOAA, USGS, and USACE**

2) Conduct a pilot-scale activity that is complementary to the federal agency climate change research groups, such as the CCAWWG initiative, and promotes collaborative WSWC/WestFAST input into the R&D activities of USACE’s System Wide Water Resources Program (SWWRP).

- The WSWC and WestFAST will work with the WestFAST Liaison to identify common research needs of western states that could be considered and, contingent on approvals and funding, potentially addressed as part of the FY2012 SWWRP.
- Determine the WSWC/WestFAST vision for long-term collaboration with the SWWRP and potential ways the SWWRP activities could be leveraged with other R&D initiatives to address common areas of interest.
- If desired, and based on lessons learned, develop a concept strategic plan for near and long-term collaborative WSWC/WestFAST R&D initiatives that could be considered and potentially implemented by decision makers. **Lead: USACE**

F. Objective “36. Planning for climate changes should be undertaken at all levels, from the federal government to private and public water utilities, with participation from non-governmental organizations.” (*Next Steps, 2008; page VII*)

Work to Date: WestFAST participated in the Sept 23-24, 2008 Climate Change Workshop, Irvine, CA. NOAA/USGS/COE have formed the Integrated Water Resources Information Science and Service Consortium (IWRSS). The objectives for IWRSS include providing a seamless suite of consistent water resources monitoring and forecast information – summit to sea.

2009: WestFAST agencies will provide support in developing strategies to provide assistance to local water utilities in preparation for results of changing hydrologic conditions (i.e., a net change in available water supply). **Lead: EPA.** Prepare and distribute a scientific circular: *Climate Change and Water Resources Management: A Federal Perspective.* **Lead: USGS**

G. Objective “37. More water storage should be considered, accompanied by an extensive risk and cost-benefit analysis, together with an analysis of the potential for reducing demand and increasing water use efficiency.” (*Next Steps, 2008; page VII*)

Work to Date: N/A

2009: WestFAST views this objective as a means to increasing water storage through innovative or nontraditional ways and not merely relying on the typical or historical meaning of “storage,” e.g., more dams or reservoirs. WestFAST will compile a list of agency programs and/or initiatives, on the supply and demand side, that could provide technical, policy, and/or planning assistance to States and/or local water managers. **Lead: Forest Service**

WATER to MEET FUTURE DEMANDS, Water Planning and Management

A. Objective “8. Federal agencies with long-range water supply planning responsibilities should:

a) Work in cooperation with states to help communities develop drought preparedness plans, drought contingency plans, establish or enhance federal reservoir drought contingency plans, and be visible and engaged in all drought-related forums: nationally, regionally and locally.” (*Next Steps, 2008; page IV*)

Work to Date: Under P.L. 109-234 Reclamation has provided emergency drought assistance to communities in the West. EPA has supported local utilities as they seek to “drought-proof” themselves by providing opportunities to focus local, regional, and agency attention.

2009: Items identified in **A, B, C, D, and F**, within Climate Change Impacts listed above, contribute to WestFAST agencies providing assistance to communities with respect to drought.

B. Objective “8 (b). Support the implementation of the National Integrated Drought Information System (NIDIS) by

- (i) providing drought information, such as reservoir storage levels, linking Federal web sites with the NIDIS site;
- (ii) supporting state and local drought planning within an integrated water resources management framework;
- (iii) providing information on drought impact assessment in areas where they have expertise, such as navigation, hydropower, ecosystem needs, and recreation; and
- (iv) participating in NIDIS pilot studies, particularly in studies involving water resources management.” (*Next Steps, 2008; page IV*)

Work to Date: The NIDIS Act of 2006 (P.L. 109-430) identified an interagency approach to improve drought monitoring, forecasting, and early warning. The NIDIS has a national-level interagency Executive Council, which oversees an implementation team, comprised of representatives from more than 40 federal and state agencies, academic institutions, and tribal and private entities.

2009: During the next five years, NIDIS will build on its successes through a more thorough coordination of relevant monitoring, forecasting, educational and impact assessment efforts tailored to watersheds (e.g., basin-scale management, interbasin transfers, ecosystem impacts in the Colorado Basin); regions (e.g., Southeast GA, AL, FL, Carolinas); coastal (Chesapeake Bay); and local (Lower Great Plains counties) levels. **Lead: NOAA with support from WestFAST agencies.**

C. Objective “8 (c). Ensure there is an accurate assessment of the Nation’s water availability and water demands, with the goal of integrating the information into state water resources planning, recognizing that a truly national assessment must begin at the state and local level with appropriate technical and financial support from the federal government.” (*Next Steps, 2008; page IV*)

Work to Date: Working in collaboration with WSWC, USACE recently completed the Western States Watershed Study, that provided an opportunity to demonstrate how federal agencies could collaboratively work together to help support regional planning activities of the western states.

2009: USACE is conducting a national study entitled “Building Strong Collaborative Relationships for a Sustainable Water Resources Future” that will provide an inventory of state water plans, the scope of water resources planning and management, and the opportunities for collaboration and partnership. **Lead: USACE**

WATER to MEET FUTURE DEMANDS, Water Information

Objective “7. State and federal water resource agencies should work together to provide universal access to the water-related data collected by all state, local, and federal agencies, as well as tools and models that better enable the synthesis, visualization and evaluation of water-related data, including that to be shared with local governments.” (*Next Steps, 2008; pages III-IV*)

Work to Date: WestFAST participated in the Nov 17-19, 2008 Water Data Needs symposium.

2009: WestFAST will participate in the work group identified as a result of the Water Data Needs Symposium. **Lead: WestFAST Liaison and USGS WestFAST representative**

WATER INFRASTRUCTURE NEEDS and STRATEGIES, Water and Wastewater Treatment

Objective “20. All levels of government, along with appropriate private sector involvement, should cooperate in the development and implementation of appropriate criteria for prioritizing infrastructure needs, asset management strategies, policies, standards, techniques and technologies.” (*Next Steps, 2008; page V*)

Work to Date: N/A

2009: USACE will work with WestFAST members in cooperation with WSWC, the Oklahoma Water Resources Board, the Texas Water Development Board, the WestFAST Liaison and others to help plan and participate in a Society of American Military Engineers Regional Conference session on “Water Resources and Associated Infrastructure Challenges.” The session will emphasize the priority role that states play in water resources planning; local and tribal organizations also will provide information on their respective water resource and associated infrastructure. **Lead: USACE**

BACKGROUND

This Work Plan emphasizes “proactive, voluntary, participatory and incentive-based approaches to water resource management and conservation assistance programs throughout the Western States.” The priorities listed above are envisioned as areas where the entire WestFAST team could work collaboratively. Individual agencies will continue to provide specific support to WSWC in addition to priorities noted below.

Each federal agency has been engaged with the WSWC individually for many years. However, this is the first time where there is a coordinated effort to respond to the unique needs of the western states and to assist in the implementation of their comprehensive report. The mission and activities of each WestFAST agency are summarized below.

U. S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) is dedicated to providing quality and responsive service to the nation in peace and in war. The Directorate of Civil Works is a major component of the USACE. The Civil Works program includes planning assistance to states and water resource development activities associated with flood risk reduction, navigation, recreation, and infrastructure and environmental stewardship. The USACE mission includes emergency response. In support of the 2009 WSWC/WestFAST Work Plan, the USACE will perform a comprehensive review of on-going planning studies with the intention of cross-walking the potential study outputs with the initiatives described in the *Next Steps* Report. For example, the

three western Corps Divisions (Northwestern, South Pacific and Southwestern) could demonstrate potential cohesion between the existing and planned work in support of state water plan development in TX, OK, and KS. The USACE will help facilitate pilot-scale activities to demonstrate additional ways to promote collaborative support for state water planning initiatives. These efforts will focus on leveraging multiple R&D activities and utilizing the organizational resources of the Society of American Military Engineers. Other possible studies/initiatives include, for example, the “Partnerships for Collaborative Integrated Water Resource Planning and Management” which has the purpose of identifying gaps, challenges, and needs for federal assistance to state and regional water resource planning and management, may reflect additional opportunities to work collaboratively with states on their plans and/or studies involved with storage reallocation.

Bureau of Reclamation

The Bureau of Reclamation is the nation’s largest wholesale water supplier, operating 348 reservoirs with a total storage capacity of 245 million acre-feet of water. Reclamation water supplies serve more than 31 million people and provide 140,000 western farmers with irrigation water for 10 million acres of farmland. Reclamation is the second largest producer of hydroelectric power in the western United States. The agency’s mission is to assist in meeting the increasing water demands of the West while protecting the environment and the public’s investment in facilities. Reclamation is committed to working in partnership with states, Tribes, water and power customers, and others to seek creative and collaborative solutions to Western water issues. Reclamation has numerous programs, initiatives and activities that will help the Western States, Native American Tribes and others meet new water needs and balance the multitude of competing uses of water in the West.

Environmental Protection Agency

The Environmental Protection Agency (EPA) is one of the primary governmental organizations responsible for protecting human health and natural ecosystems. As such, EPA plays a major role in the regulation, protection and improvement of water resources and supplies of the United States. EPA’s Office of Water depends on the ten EPA Regions, other federal agencies, state and local governments, Indian tribes, the regulated community, organized professional and interest groups, land owners and managers, and the public-at-large to accomplish their mission.

National Oceanic and Atmospheric Administration

The overall goal of NOAA’s Western Region Regional Collaboration Team (NOAA West) is to engage regional partners, stakeholders and customers on NOAA’s behalf to foster dialogue regarding products and services required to meet NOAA’s mission goals. It is also a goal of the team to facilitate collaboration among NOAA entities and partners in the region to address national and regional priorities. A secondary activity is to keep informed on key associations, councils, workgroups, and meetings and look for opportunities where NOAA could collectively leverage its resources (through the Line Offices (LO’s)) to address problems. This activity may include cross LO projects which team members are closely associated with.

USDA Forest Service

The Forest Service (FS) has two potential roles in working with WSWC on the *Next Steps to Water Needs and Strategies for Sustainable Future*. The Research and Development Deputy

Area has more than 70 experimental forests. Most include hydrologic studies where data is collected, models are developed and research is published. A website is maintained with Climatological and Hydrologic Data Access (www.fsl.orst.edu/climhy/). The National Forest System Deputy Area Manager manages public lands in national forests and grasslands, which encompass 193 million acres. As a land manager the Forest Service is best suited to participate in State water planning efforts and watershed restoration projects to restore natural water storage and natural water delivery.

Bureau of Land Management

The Bureau of Land Management (BLM) is committed to working with the Western States and the WestFAST agencies to maintain and enhance the 260 million acres of public land watersheds under their administration. The agency has developed the Healthy Lands Initiative (HLI) to move forward with watershed restoration efforts and to identify areas where partnerships can leverage funding for work needed on the ground. The *Next Steps* report presents an excellent opportunity for the BLM to coordinate with WestFAST agencies and the Western States on watershed restoration efforts and improving water supply.

U.S. Geological Survey

The USGS will continue to work to provide water information in a timely and cost effective manner to the Western States water resources community as described in the “Water to Meet Future Demands” section of the *Next Steps* report. The USGS will collaborate with the Western States Water Council and its member States to improve access to water-related data that better enables the synthesis, visualization, and evaluation of water related data. The USGS also will participate and respond to recommendations made in the upcoming Western States Water Council “Water Information Needs and Strategies” symposium. In addition, the USGS expects to advance its research capabilities and collaborate with the Western States Water Council and other WestFAST agencies in addressing the effects of climate change on western water resources.

USDA Natural Resources Conservation Service

The USDA Natural Resources Conservation Service (NRCS) provides technical and financial assistance to private landowners to achieve conservation objectives on private lands that result in public benefits. Conservation objectives for water resources include: improving water quality by reducing sediment and agricultural pollutants; improving riparian areas and wetlands; and improving water use efficiency on irrigated lands. NRCS provides assistance to local communities to address flooding, water storage, and related issues, and provides technical assistance for locally-led watershed planning in coordination with Conservation Districts, Resource Conservation and Development (RC&D) Councils, State agencies, Tribes and other partners. NRCS also provides resource information, such as the Natural Resources Inventory and Snow Survey and Water Supply Forecasts, to decision-makers and water managers in the west.

U.S. Fish and Wildlife Service

The mission of the U.S. Fish and Wildlife Service (FWS) is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. FWS works to protect and recover threatened and endangered species, restore nationally significant fisheries, and to conserve and restore wildlife habitat such as wetlands.

FWS distributes hundreds of millions of dollars to States, territories and tribes for fish and wildlife conservation projects. FWS also manages the 96 million acre National Wildlife Refuge System and operates 70 National Fish Hatcheries which mitigate for fisheries lost as a result of federal water projects and support recreational fisheries.

1/Water Needs and Strategies for a Sustainable Future: Next Steps, Western Governors' Association, June 2008.