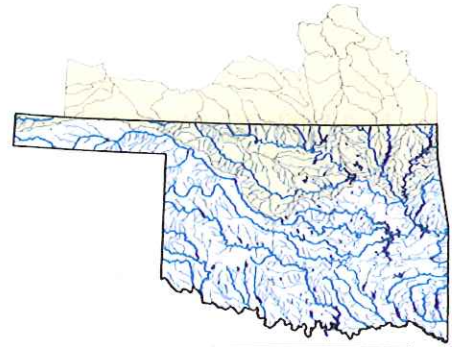


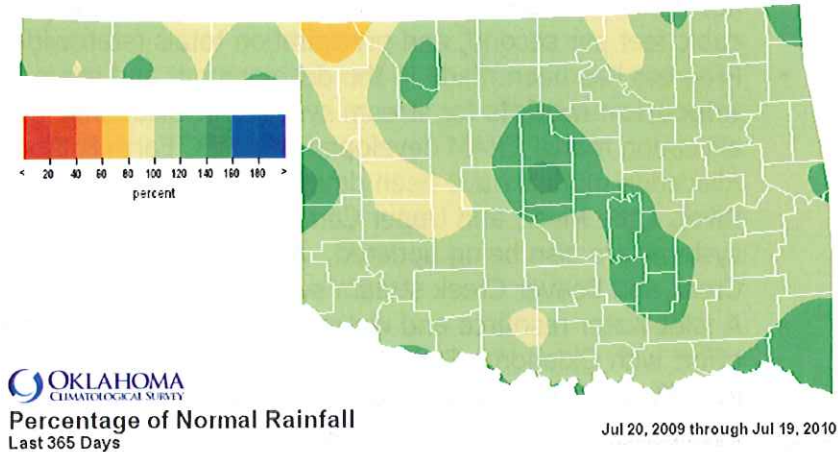
OKLAHOMA COMMISSIONERS' REPORT
Kansas-Oklahoma
Arkansas River Compact Commission



Annual Meeting: Ark City, Kansas
July 27, 2010

CLIMATE

Throughout the Compact region, during the past 365 days, Oklahoma's Northeast climate division has received almost 48 inches of precipitation, 114 percent of normal rainfall (a surplus of almost six inches). The adjacent North Central region is at 106 percent (about 33.5 inches). The Panhandle region also remains in good condition at 100 percent (21 inches) of normal precipitation.

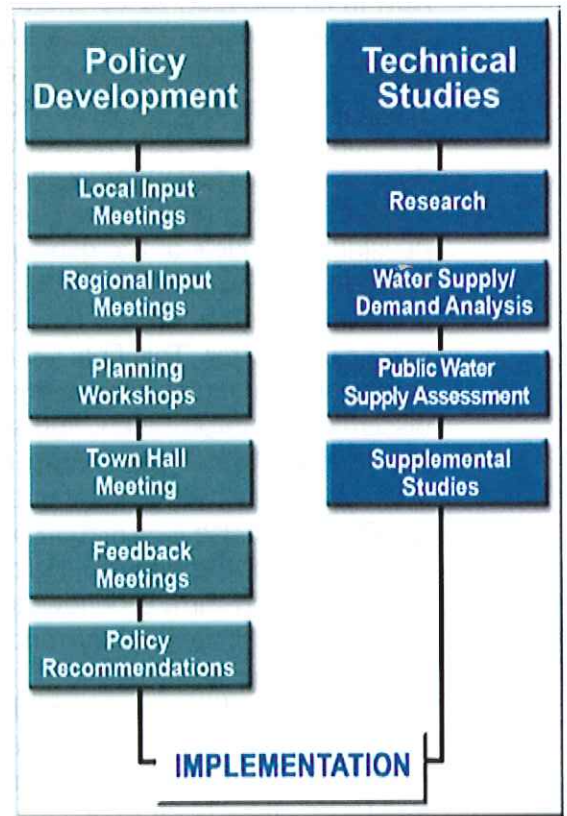


UPDATE OF THE OKLAHOMA COMPREHENSIVE WATER PLAN

fourth

The Oklahoma Water Resources Board has begun the ~~third~~ year of the state's update of the Oklahoma Comprehensive Water Plan, planned for completion in 2011 and submittal to the State Legislature early in 2012. The 42 statewide listening sessions, to facilitate the stakeholder participation and public policy development phase of the update, concluded in November 2007 while 11 regional input meetings to determine priority water issues in each region concluded in November 2008. Priority statewide water issues were discussed in detail during planning workshops held during the summer and fall of 2009. The OCWP Town Hall meeting, hosted by the Oklahoma Academy, was held in May 2010 to further refine water policy issues.

The ongoing technical study/engineering phase of the OCWP process – in conjunction with various state and federal agencies and organizations, as well as consultants – includes a detailed statewide assessment of water supplies, infrastructure, current water use, and future water demands, including an investigation of projected water deficits in each of 13 OCWP watershed planning regions (including 82 basins).



WATER RESOURCE STUDIES

Surface Water

- Through the Oklahoma Comprehensive Water Plan, the OWRB has contracted with the USGS to develop Oklahoma **StreamStats**, a web-based tool that will provide monthly and annual stream flow statistics for delineated Oklahoma watersheds. This project is completed and the USGS is finalizing the web application portion of the project. The USGS is also completing a study and report on Trends in Base and Total Flow for Selected Stream Gages in Oklahoma. Trend analysis will be performed for the following stream flow parameters on an annual (water year) and seasonal (Nov-May and Jun-Oct) basis: total flow volume, base flow volume, base flow index, peak flow volume, number of zero flow days, days below 1.0 cubic feet per second, and precipitation totals (statewide and by climate division).
- Progress has been made in the development and implementation of **stream water allocation models** for stream systems in Oklahoma. The OWRB is using the network allocation model CRAM developed by AMEC Earth & Environmental of Boulder, CO. Allocation models have been developed for the Blue River, Muddy Boggy Creek, Kiamichi River, Little River, and Upper Canadian River. Hydrologic Investigations for these stream systems are also being updated. Additional models are planned for this fiscal year in Cache Creek and Beaver Creek stream systems.
- A joint water resource and water quality study, the **Oxbow Lakes Project** is a cooperative effort with Oklahoma State University and the Oklahoma Conservation Commission to identify and characterize oxbow wetlands in Oklahoma. The objective is to catalogue and initiate an assessment scheme for this unique water resource.

Groundwater

- Now in its last year, researchers involved in the **Arbuckle-Simpson Hydrology Study** have made considerable progress in obtaining information necessary to understand the aquifer's hydrologic system and assess consequences of groundwater withdrawals on the environment and water users. Accomplishments for the fourth year of the study include developing a river-basin network model to assess the impact of groundwater withdrawals on downstream surface water rights and initiating an instream flow assessment to quantify fish habitat in spring runs of the Blue River and Pennington Creek. Efforts continued in developing models of the geologic framework, stream runoff, and groundwater flow. In addition, several geophysical techniques were used to characterize the subsurface geology and evaluate groundwater flow through the highly-faulted and structurally complex carbonate aquifer. This final year of the investigation has been devoted to writing reports, conducting computer simulations, evaluating various water-management options, disseminating information, and soliciting input from stakeholders.
- The **Garber-Wellington Water Management Study** was initiated in June 2008 to address growing concerns about the future of water availability in central Oklahoma. While the OWRB will use information obtained from the investigation to determine the maximum annual yield of the aquifer, a groundwater-flow model will also be developed to predict the impacts of long-term groundwater withdrawals on the aquifer as well as simulate water management strategies. Current efforts are focused on developing the geohydrologic framework and water budget. Over the last few months, U.S. Geological Survey staff have made considerable progress in developing a three-dimensional representation of the lithologic properties of the aquifer. The study, funded with state monies through the Oklahoma Comprehensive Water Plan and federal funds through the Bureau of Reclamation and USGS, is on track to be completed by September 30, 2011.

Water Quality

- Continuing efforts to improve water quality in **Lake Thunderbird**, the OWRB and Central Oklahoma Master Conservancy District (COMCD) are cooperating on an ARRA "green" project that includes implementation of a new system to oxygenate lake water. The OWRB and other agencies are also finalizing a cooperative effort to develop a TMDL addressing Thunderbird water quality impairments, including high turbidity, algae and low dissolve oxygen.
- Through the **OCWP Surface Water Quality Trends Analysis**, OWRB staff are initiating a long-term assessment of trends in surface water quality in support of the Oklahoma Comprehensive Water Plan.
- Work continues at **Lake Stanley Draper, Grand Lake, and Hudson Lake** to establish and spread the growth of native aquatic plants. These plants serve as a low cost, innovative way to combat erosion and suspended sediment. The OWRB seeks to educate lake managers on the habitat-friendly benefits of establishing aquatic plants to improve water quality and the health of Oklahoma's aquatic communities.
- In response to the potential for severe impacts resulting from toxic-producing algae, OWRB staff are working with various state, local and volunteer monitoring entities to assess the risk from harmful algae blooms.
- The OWRB continues to participate in the **National Flowing Waters Study**. Sampling on numerous wadeable and non-wadeable streams will provide data to assess environmental integrity of the waters.
- Additional ongoing OWRB water quality projects include:
 - Probabalistic biological monitoring to assess stream ecosystem integrity throughout Oklahoma;
 - Confirmatory stream and reservoir monitoring to assess Water Quality Standards beneficial use attainment status; and
 - Monitoring for the Grand River Dam Authority to assist GRDA in management of their reservoirs for ecosystem support.

BENEFICIAL USE MONITORING PROGRAM

The OWRB's Water Quality Division continues to monitor water quality conditions and trends statewide through the Beneficial Use Monitoring Program (BUMP) and Oklahoma Water Watch (OWW) Volunteer Monitoring Program. Annual BUMP reports and corresponding data are available on the OWRB's Web site at www.owrb.ok.gov/bump.htm.

The BUMP, recognized by EPA as one of the finest state-run monitoring programs in the nation, facilitates science-based decision-making concerning impaired waters. In tandem with Oklahoma's Water Quality Standards and the National Pollutant Discharge Elimination System (NPDES) program, the BUMP has become a cornerstone of state water quality management.

OKLAHOMA WATER QUALITY STANDARDS

The OWRB's Water Quality staff initiated revision of the Water Quality Standards in September 2009. The rulemaking focused on a variety of potentially revised standards components, including criteria for color-producing substances, natural conditions, and new criteria for acrolin and phenol. The nine-member Water Board approved the revised Standards in March 2010 and those revisions were subsequently approved by the Legislature and Oklahoma governor. Following EPA approval, they will be effective for water quality programs in November or December 2010.

DAM SAFETY PROGRAM

House Bill 1488 was passed by the Oklahoma State Legislature in 2009 and directed the OWRB and Oklahoma Conservation Commission to form a study group to review state and federal law and regulations relating to the classification of dams; to make recommendations for the reclassification of dams' hazard-potential; formulate a public education program aimed at the safety risks of construction of buildings and homes below a dam; and other issues. This group has met several times to discuss these issues and make recommendations. A draft report to the Oklahoma State Legislature has been written. The OWRB has adopted amendments to the Dam Safety rules following recommendations from the study group, which focused primarily on reclassification of the hazard-potential of dams.

FLOODPLAIN MANAGEMENT ACTIVITIES

In 2009, the OWRB scanned and posted on the web numerous preliminary flood maps, USGS Floodprone Area Quad maps and Soil Survey Maps. The maps provide the best available flood boundary information for several areas in the state where no other flood data is available. The OWRB also contracted with a local engineering firm to scan hydrological data from original EPA microfiche media; these files will also be posted on the web to assist in planning for proposed community development in the floodplain. The OWRB is utilizing the Flood Map Modernization State Business Plan as a guide in helping community officials update their long out of date flood ordinances. Of the 77 counties in Oklahoma, 41 will have new digital flood maps when the Map Mod program concludes. Soon, with OWRB assistance, FEMA will provide new study data to priority areas in the state.

WATER RESOURCES FINANCING

The OWRB administers the State *Financial Assistance Program (FAP)*, backed by the Statewide Water Development Revolving Fund, which awards loans and grants for the construction and improvement of water and sewer facilities. In all, through the OWRB's five loan and grant programs, almost \$2.2 billion in financing has been provided for water and sewer projects in Oklahoma with a total estimated savings of almost \$764 million to Oklahoma communities.

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to draw upon for their wastewater infrastructure needs.

The CWSRF program is Oklahoma's

largest self-supporting wastewater financing effort. The Drinking Water State Revolving Fund (DWSRF) loan program is an initiative of the OWRB and Oklahoma Department of Environmental Quality to assist municipalities and rural water districts in the construction and improvement of drinking water systems. These projects are often mandated for communities to obtain compliance with increasingly stringent federal standards related to the treatment of drinking water.

The Rural Economic Action Plan (REAP) Program was created by the State Legislature in 1996. REAP grants, used for water/wastewater system improvements, target primarily rural communities with populations of 7,000 or less, but priority is afforded to those with fewer than 1,750 inhabitants. Emergency grants, limited to \$100,000, are awarded to correct situations constituting a threat to life, health, or property and are an indispensable component of the

Program	Number and Amount
FAP Loans	326 for \$692,610,000
CWSRF Loans	229 for \$891,792,441
DWSRF Loans	118 for \$594,027,882
REAP Grants	544 for \$48,007,611
Emergency Grants	557 for \$33,047,065
Drought Response Grants	2 for \$200,000
ARRA Funding	\$60,617,376
TOTAL	1,776 for \$2,320,302,376

agency's financial assistance strategy. In addition, through the OWRB Drought Response Program, limited grant funding is available for communities in most dire need during state drought emergencies declared by the Governor.

Helping to vault the OWRB's FAP past the \$2 billion level in total funding in 2009 was the state's participation in the **American Recovery and Reinvestment Act (ARRA)** program, a cooperative effort between the EPA, OWRB, and Oklahoma Department of Environmental Quality that leveraged federal stimulus dollars with funding from the Clean Water and Drinking Water State Revolving Fund Programs. The last of 56 projects was approved in January 2010 and Oklahoma became one of only three states in the country and the first in the region to have all water and wastewater stimulus funds obligated and under contract well in advance of the February 17, 2010 Congressional deadline. The total ARRA award of \$63 million was leveraged into almost \$244 million in total projects funded in Oklahoma.

OKLAHOMA STATE LEGISLATURE

The State Legislature adjourned on May 28. With legislators consumed by budget issues (the OWRB received a 7.5 percent cut in appropriations), there was little formal water legislation considered, and nothing of note was passed, including proposed bills concerning creation of a state water center and mining pit water regulation. Probably the most consequential result of this year's session for the OWRB was ratification of several new fees, which should provide much-needed revenue to support critical water use permitting activities and hydrologic studies. A penalty for unauthorized use was also established allowing the OWRB to double the application fees for those who use water before obtaining a permit. Agency consolidation was proposed by the Legislature late in the session and failed to gain the necessary momentum for passage.

OKLAHOMA GOVERNOR'S WATER CONFERENCE & RESEARCH SYMPOSIUM

On October 26-27, the OWRB and Oklahoma Water Resources Research Institute will co-host the 31st Annual Oklahoma Governor's Water Conference and Water Symposium at the Embassy Suites Hotel and Conference Center, in Norman.

OWRB INTERSTATE STREAM COMPACTS WEBSITE

In 2009, the OWRB established a website that provides interactive, real-time information on USGS streamflow gages in the four interstate compacts to which Oklahoma is party. Visit the site at www.owrb.ok.gov/supply/compacts/compacts.php.

