

OKLAHOMA Water News

2nd Quarter 2011

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Legislative Leaders Announce Water Committee

Successful implementation of 2012 Oklahoma Comprehensive Water Plan initiatives received early support last month as House Speaker Kris Steele and Senate President Pro Tem Brian Bingman ordered the formation of a joint legislative committee to review the OCWP and facilitate the development of long-range water policy for Oklahoma.

The committee has already begun working over the current legislative interim and will continue to work during next year's legislative session, possibly extending into the following year.



Rep. Kris Steele

"Responsible allocation of water—our most precious natural resource—is among the greatest responsibilities we have today to the citizens of tomorrow," said Steele, R-Shawnee. "With the updated Water Plan nearly complete, we must no longer defer action on this vital issue."

The committee's co-chairmen will be Rep. Phil Richardson and Sen. Brian Crain. "Its membership will be bipartisan and geographically diverse and the committee will take all interests into account, whether they are rural, urban, tribal, or anywhere in between," Steele added.

"The water board has labored for years to put together a fair, unbiased, evidence-based report on water in Oklahoma. We must allow them to continue their work without the appearance of any premature political influence, so the committee will not be taking any official actions until after the water plan has been finalized," Steele said. "In the meantime, it is prudent for the Legislature to begin at least reviewing the parts of the plan that are publicly available. The plan is lengthy and complex, so we need to make sure we're doing our due diligence in preparing ourselves to act upon it next year."

Steele and Bingman said water policy will be a top priority in the Legislature next year and urged legislators to approach the issue with open minds.

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Sen. Brian Bingman

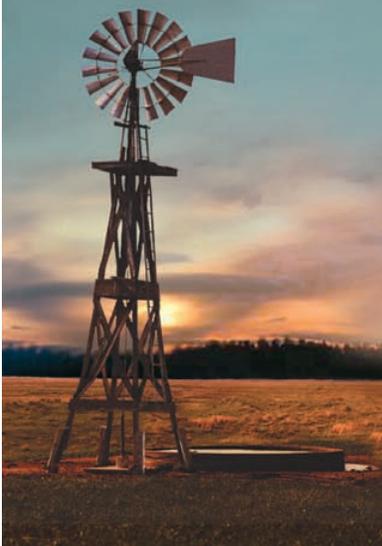
From the Director

While no Oklahoman is a stranger to drought and its many devastating impacts, I don't recall a summer that has been so dry and so hot so soon. Multiple sources report that most of the western half of the state is currently experiencing exceptional or extreme drought—the worst possible categories. Already, our farmers and ranchers have been hit hard, and many cities and towns are initiating water restrictions. The combination of exceedingly hot weather and meager rainfall, coupled with pre-existing high nutrient concentrations in several state lakes, has resulted in the "perfect storm" of conditions leading to toxic algae blooms that pose a substantial public health threat and limit recreational opportunities. Long-range forecasts call for more of the

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J. D. Strong, Executive Director
Oklahoma Water Resources Board



Water Committee (continued)

“We simply cannot afford to waste time or play political games with our water policy. It is too important to the future of our state,” Steele said.

“Water policy is a complex and sometimes emotional issue, but I am confident that the leadership and

will power exists within this Legislature to meet this challenge,” Bingman, R-Sapulpa, pointed out.

Announcement of individual committee members is expected soon. ♦

From the Director (continued)

same, so imminent relief is unlikely.

This drought episode demonstrates, yet again, the need for sound, proactive water planning. In fact, this current drought would undoubtedly be much harder on state citizens if it were not for the OWRB’s loan and grant programs—the direct result of a 1980 Oklahoma Comprehensive Water Plan recommendation—that have funded billions of dollars in water projects making our systems more resistant to water shortages and better equipped to serve a growing customer base. However, over the next 50 years, Oklahoma faces a daunting infrastructure need, estimated at \$87 billion for drinking water projects alone, which our current program is ill-equipped to handle. A recommendation to develop a more robust financing program is included in the draft 2012 OCWP Update and is currently under consideration for priority implementation by our nine-member Board. At least six other initiatives, directly resulting from unprecedented OCWP public input, have also been submitted to the Board for elevation to priority status.

Recognizing that sound data is imperative to intelligent water management decisions, a second OCWP draft priority recommendation calls for stable, long-term funding to strengthen state programs to monitor and study our water resources. Enhancing our ability to ascertain, at any given time, the status of Oklahoma’s water quantity and quality will heighten our ability to implement tools to address and prevent future water problems.

A related draft priority recommendation focuses on more sustainable and realistic permitting of water use. Transitioning from a permitting system based upon average annual water flows to one that incorporates “real world” seasonal variability and availability has substantial merit, as does recognition of the interrelationship of surface and groundwater withdrawals in certain critical areas of the state, such as the Arbuckle-Simpson aquifer region.

In the absence of a valid, accepted formula to calculate nonconsumptive water uses (such as recreational and environmental flows) in OCWP demand forecasts, the OWRB formed a workgroup of experts and stakeholders to study the issue. The Board is considering the workgroup’s suggested process to evaluate the benefits and obstacles to incorporating instream flow considerations into the state’s current water rights administration and planning programs. Tools developed for the OCWP update could be utilized to account for these nonconsumptive uses in appropriate stream systems throughout the state.

Excess and surplus water, probably the most contentious OCWP issue, involves the determination of water available on a basin-specific level for use outside the basin, as well as establishment of protections to ensure that areas of origin are never water deficient. This quantification process, which is required of the OWRB as part of each Water Plan update, has traditionally involved only direct application of 50-year supply and demand information. However, the Board will deliberate incorporation of additional mechanisms that account for instream flow protections, Federal and Tribal reserved water rights, interstate compact requirements, downstream needs, and other factors.

A particularly well-supported recommendation that arose from this OCWP public input process was establishment of regional planning groups to address and implement unique local water management and planning priorities. A specific aspect of this recommendation that will be considered by the Board is the most effective level of authority that could be assigned to these groups. At a minimum, regional planning group representatives could provide extremely useful and well-informed feedback for prioritizing issues and funding decisions in their respective regions.

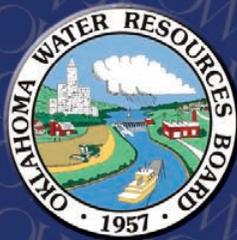
The final draft priority recommendation under Board consideration is consultation regarding water issues between the State and Oklahoma’s Tribal governments. Public participants and other OCWP partners made it abundantly clear that we need a more formal and deliberate process to finally address our mutual issues and concerns.

I cannot stress enough that our existing body of water law, which has evolved slowly and purposefully since statehood, has served the state very well over the past several decades. Neither Board members nor agency staff advocate any significant changes without considerable forethought to the potential impacts. If it’s not broke, why fix it?

Whatever the Board decides, implementation of important OCWP initiatives will receive a tremendous boost through the newly formed joint legislative water committee. The State Legislature and Governor represent the final vital partners—in addition to Water Board members, agency staff and state citizens—imperative to a successful Water Plan that results in a secure water future for Oklahoma. ♦

Save the Date

October 18-19, 2011



OKLAHOMA

Governor's Water Conference



Embassy Suites Hotel and Conference Center
Norman, Oklahoma

OWRB Elects Lambert as Chair

At its monthly meeting in June, the Oklahoma Water Resources Board elected three new officers, including the first woman chairman in the agency's 54-year history.

The incoming Chairman is Linda Lambert, an Oklahoma City businesswoman, who represents industrial water use. She is the President of LASSO Corporation (an oil and gas development investment corporation), President of ENERTREE, L.L.C., a Director of OGE Energy Corp., Director of InvesTrust, Chairman of the Board of Mercy Health Center, and past Vice Chairman of the Oklahoma City Public Schools Trust.

"I am honored to assume this responsibility to oversee the state's vital water business, especially working with other Board members and agency staff to finalize the 2012 update of the Oklahoma 50-Year Comprehensive Water Plan and implement its many water policy initiatives," says Lambert, who was appointed by Governor Brad Henry in March 2007. "I especially look forward to working closely with Speaker Steele, President Pro Tem Bingman, and other members of the new joint committee on water to review the Water Plan and begin preparations for urgent and sustainable water legislation during next year's session."

According to J.D. Strong, Executive Director of the OWRB, the leadership and support of outgoing Board chairman Rudy Herrmann has been instrumental in both furthering the Water Plan and improving the agency's overall water management strategy. "Rudy's rare insight into often complex water issues has resulted in continued growth and refinement of our programs and mandates. I know Linda also brings her own unique viewpoint to the position so this strong leadership will remain consistent as water takes center stage on the political landscape in Oklahoma."

Buchanan Joins OWRB

Tom Buchanan (Altus) is the newest member of the Oklahoma Water Resources Board. He replaces Mark Nichols.

A Jackson County farmer for more than 30 years, and the current General Manager of the Lugert-Altus Irrigation District, Buchanan will represent irrigation water interests as an At Large member.



Tom Buchanan

Ford Drummond (Bartlesville) was elected Vice Chairman. Drummond, representing agricultural use interests on the Board, is the owner and operator of a large family ranch in Osage County and a member of the BancFirst Corporation Board of Directors. Previously, he spent several years in Washington D.C. as a Congressional advisor and served as Legislative Counsel to the American Medical Association, where he worked on health care legislation and regulations, and as General Counsel for BMI-HealthPlans, a regional health insurance company.

Now serving as Secretary is Joe Taron, a retired dentist from Shawnee, who is the Board's rural residential water use representative. Dr. Taron is a founding member of the Pottawatomie County Development Authority, where he served as chairman for 30 years. He received the Oklahoma Water Pioneer Award in 2004.

The nine Water Board members, appointed by the Governor, define policy and conduct the state's water management and protection activities. They serve staggered seven-year terms and represent all geographic areas of the state and diverse groups of water users. ♦

Finalizing the OCWP

Since last April, when the initial draft of the 2012 OCWP Update was made available to the public on the OWRB's website and the first of thirteen OCWP regional feedback meetings were held, OWRB staff have been consumed with finalizing both the draft OCWP Executive Report, and with help from CDM, the agency's lead engineering firm, the thirteen Watershed Planning Region reports.

Work on the Executive Report has included prioritization and analysis of OCWP water policy recommendations. Currently, seven priority recommendations—the result of both public/stakeholder input and technical evaluations—are under consideration by Water Board members: Monitoring and Studies, Instream/Environmental Flows, State/Tribal Water Consultation and Resolution, Excess and Surplus Water, Water Management and Supply Reliability (Conjunctive Management and Seasonal Allocation), Local and Statewide Water Planning (Regional Planning Groups), and Water Project and Infrastructure Financing.

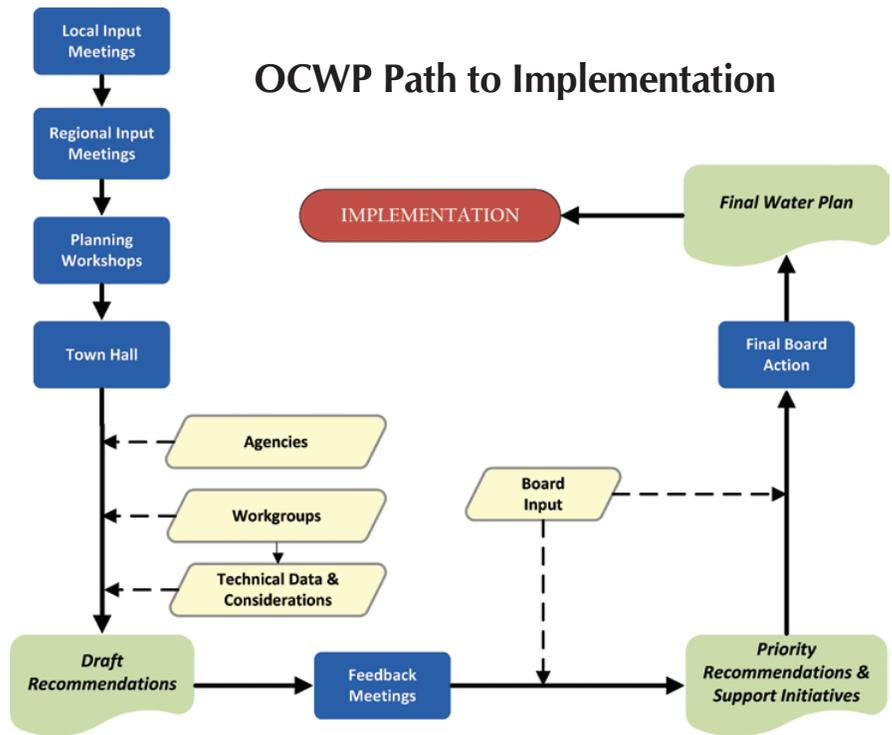
Featured in the Executive Report, these high priority issues for implementation will include more specific details about recommended legislative action and estimated funding needs. The Executive Report, the topic of public comment at the Board's monthly meeting on September 13, will be formally considered by the Board at its October 17 meeting.

Watershed Planning Region Reports, the hallmark product of the OCWP's technical analysis phase, have been reviewed by numerous individuals, both internally at the OWRB and externally by OCWP partners, including citizens and water system operators at the regional feedback meetings. OWRB staff continue to incorporate their general suggestions and supplementary information, which includes updates and corrections to the provider customer, supply, wholesale transfer, and water demand forecast data. The reports include detailed information on approximately 770 separate primary public water providers that collectively supply approximately 94 percent of the state's current population.

Revisions have also involved continuous updates to maps; each report contains more than 20 maps with the most up-to-date information on surface and groundwater sources at a regional and basin level. Clarification of key points has been a primary focus for review and update, as well as corrections to text and the addition of charts, tables, graphics, and new maps to make the information as coherent and useful as possible.

According to Kyle Arthur, OWRB Director of Planning, the goal for the Executive and Watershed Planning Region reports is to provide every state citizen with the means to access the most comprehensive, accurate, and updated information about water resources in every corner of the state. This has meant finding creative ways to present often highly technical

OCWP Path to Implementation

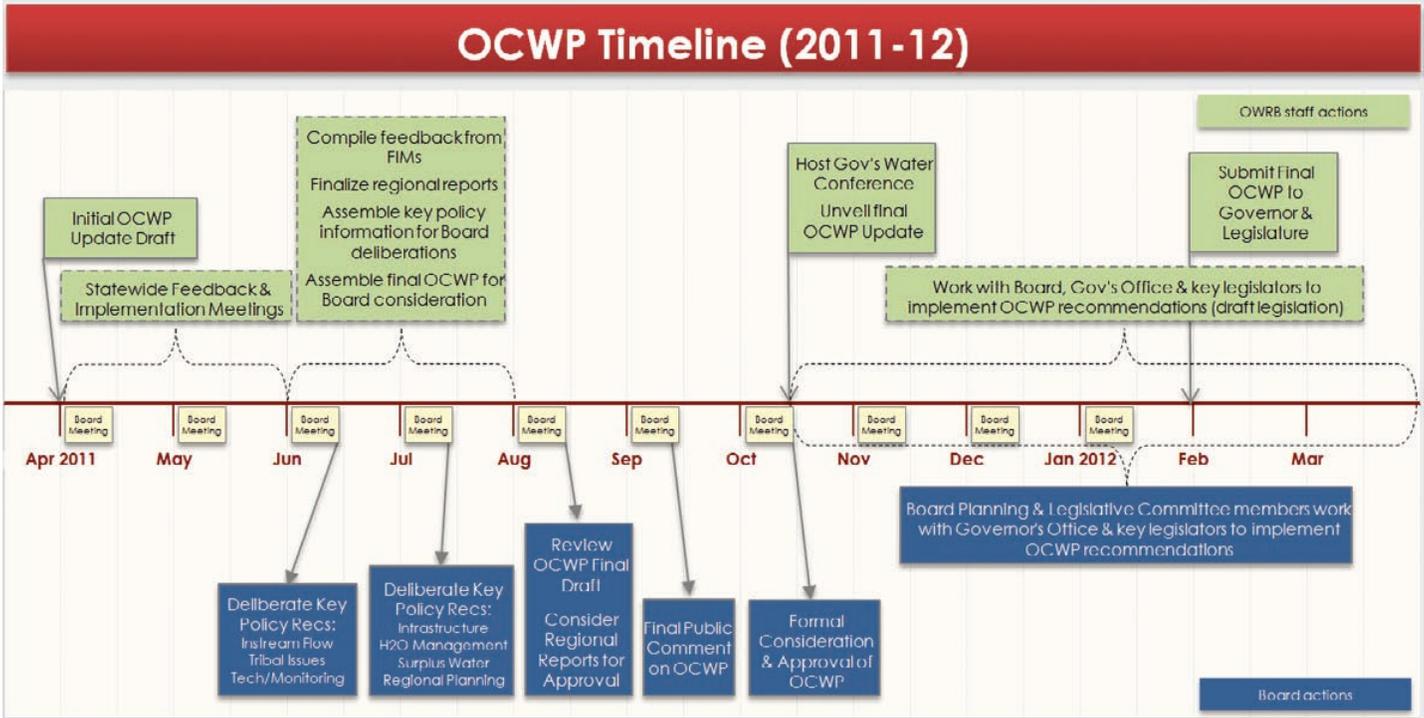


information in an easily readable format. "All the information has been gathered," says Arthur, "and our job now is to present it to the people of the state in the best possible way."

The schedule for plan finalization includes presentation of the final version to the public at the Governor's Water Conference in October, when it has been formally adopted by the Board. 💧

2012 OCWP Update Objectives

- Characterize demands by water use sector.
- Identify reliable supplies to meet forecasted demands.
- Perform technical studies in support of the evaluation of emerging water management issues.
- Engage comprehensive stakeholder involvement to make recommendations regarding the management of Oklahoma's water resources.
- Ensure water resources management programs that create reliability.
- Make "implementable" recommendations regarding the future of water management in Oklahoma based upon technical evaluations and stakeholder input.



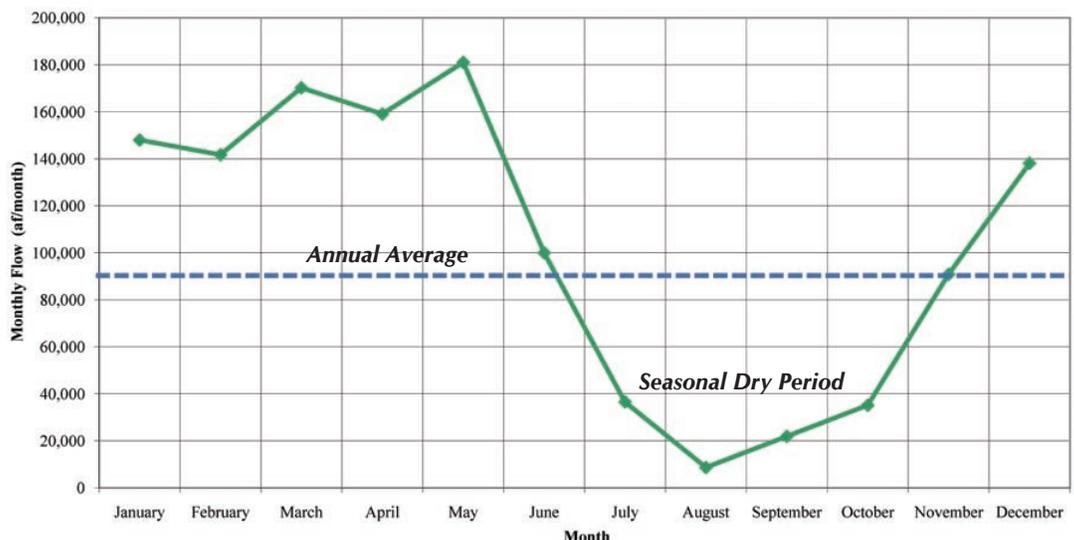
OWRB Contemplates Important Water Management Issues

Among the seven OCWP initiatives under primary consideration for implementation by OWRB members are seasonal water use allocation and conjunctive management, collectively under the “Water Management and Supply Reliability” priority recommendation. In light of projected statewide and regional increases in consumptive demands, this recommendation seeks to strengthen Oklahoma’s water management program to ensure reliable future water supplies for all users.

Under current Oklahoma Stream Water Law, the OWRB is required to determine if unappropriated water is available based on *average annual* flow. OWRB staff are recommending the organization of a workgroup to investigate transitioning to an allocation program that recognizes *seasonal variability* in both the use and availability of surface water resources. Technical information collected for the 2012 update, which included a monthly analysis of water demands and the probability of surface water gaps during inevitable dry periods, indicates that seasonal permitting could reduce the likelihood of future gaps.

Also under Board consideration is commission of a stakeholder workgroup to evaluate the suitability of a potential conjunctive management program in Oklahoma. While state law clearly distinguishes between surface and groundwater supplies and use, recent information—including data from research conducted as part of the Arbuckle-Simpson Hydrology Study—reveals a distinct hydrologic connection between the two. A prioritized comprehensive hydrologic evaluation of groundwater basins across the state could be conducted to characterize specific, valid groundwater/surface water interactions, while a stakeholder workgroup could determine the feasibility and structure of a modified allocation program. ♦

Mean Monthly Streamflow (Period of Record)
Poteau River



Instream Flow Group Considers Environment and Economy

According to “Instream Flow Issues & Recommendations,” a supplemental report developed by the OCWP Instream Flow Advisory Group, the meaning of the term “instream flow” has evolved over the years. However, it usually describes the amount of water set aside in a stream or river to ensure that downstream environmental, social, and economic benefits are met.

Ideally, to define this amount, stakeholders determine the balance of needs while scientists develop a flow regime that meets the requirements of the stakeholders. Once a flow regime is recommended, successful implementation should be consistent with state and regional water resources management plans and should result in the long-term sustainability of the surface water supply in the basin.

There is no scientifically credible rule of thumb for defining the amount of water that should remain in a river to satisfy all instream flow needs, and while scientists have dramatically improved their understanding of the impacts of altering the flow in rivers, how much change is acceptable is a complex trade-off between human values and benefits. The only way to develop an instream flow recommendation that satisfies everyone is to create an inclusive, transparent and fair stakeholder process that allows all water interests to be heard. This approach results in flow allocation decisions that are regarded as fair and reasonable by all parties.

The issue posited to the Instream Flow Advisory Group was why instream flow needs should be considered in Oklahoma. Since the benefits of having access to water for consumptive use are significant and generate, directly and indirectly, billions of dollars in revenue for the state, the group determined that great care is required to develop an instream flow policy that ensures enhancement, rather than impairment, of economic benefits, whether locally or statewide.

According to Oklahoma Department of Wildlife Conservation, more than one million Oklahomans enjoy fishing, hunting and/or wildlife viewing in the state. There are 1,200 fishing tournaments in Oklahoma every year and retail sales for fishing activities in the state amount to millions of dollars each year. Tourism is the third largest economic impact driver in Oklahoma, largely due to the appeal of the state’s streams, rivers, lakes and reservoirs. It is clear that maintaining healthy, productive streams and lakes provides recreational benefits, but there is also a significant economic incentive to do so, provided that other economic activities are not adversely affected.

The complete OCWP supplemental report, “Instream Flow Issues & Recommendations,” can be found on the OWRB’s website at www.owrb.ok.gov. “Instream/Environmental Flows” is currently being considered by the OWRB as one of seven priority OCWP recommendation topics. ♦

Why is instream flow important?

Natural stream and river systems provide many beneficial values and services, including flood mitigation, groundwater recharge, navigation, nutrient transport and recycling, pollution attenuation, water supplies, biological productivity, aesthetic values, and recreational opportunities such as fishing, boating, swimming, and wildlife viewing. Instream flow is necessary to sustain these and other utilitarian and intrinsic values. A good understanding of how instream flow levels and regimes relate to these values, and the scale of alteration from the natural condition, is necessary for informed river management.

How does one determine how much flow a river needs?

There is usually not just one flow level that a river needs to stay healthy. If the objective is to preserve riverine values, that can only be done by preserving the processes and functions of the river ecosystem. The structure and function of riverine systems are based on five riverine components; hydrology, geomorphology, biology, water quality, and connectivity. Inter- and intra-annual flow prescriptions are needed to preserve the ecological health of a river. And some flow needs, such as those that flush sediments from stream substrates or maintain channel integrity, may be quite high.

Isn’t instream flow really an issue of “water for fish” versus “water for people”?

Aren’t people more important than fish? Any normal person would answer this question with an emphatic “yes.” However, the issue of instream flow isn’t that simple, and it’s certainly not a simple choice between people and fish. Instream flow protections are implemented by many western states as a mechanism to protect myriad uses of that water, including navigation, canoeing, boating, livestock watering, and dilution of municipal/industrial discharges. All of these uses have value to people. In fact, many regions of Oklahoma are sustained largely through revenues from fishing and water-based recreation – activities that absolutely depend upon sufficient stream flows and lake levels. An informed and effective instream flow management program, and its desired result of healthy and diverse aquatic resources, is never easy. It involves the integration of scientific knowledge and societal demands within a set of legal limitations. It’s much more complicated than “keeping a little water in the creek for the fish.” In fact, it’s more about “water for people” than one may realize!

Information adapted from Instream Flow Council (IFC) FAQs. The IFC is an organization that represents the interests of state and provincial fish and wildlife management agencies in the U.S. and Canada dedicated to improving the effectiveness of their instream flow programs.

Drought Update

Reservoir Storage

As of July 5, twenty-four reservoirs (of thirty-one selected major federal reservoirs across Oklahoma, listed at right) are operating at less than full capacity, according to information from the U.S. Army Corps of Engineers (Tulsa District); twenty-eight reservoirs have experienced lake level decreases since June 7.

Palmer Drought Severity Index

According to the latest Palmer Drought Severity Index (see table below), all nine climate divisions in Oklahoma are currently experiencing drought conditions. Four regions (Southwest, Northwest, West Central, and South Central) are in the extreme drought category.

Standardized Precipitation Index

The latest monthly Standardized Precipitation Index (see table below) indicates near long-term dryness in all climate divisions. The Northwest region is in the exceptionally dry category over the past six months.



Storage in Selected Oklahoma Lakes & Reservoirs (July 5, 2011)		
LAKE	Change in Elevation (feet) 6/7/11-7/5/11	Current Flood Control Storage (acre-feet)
North Central		
Fort Supply	-0.48	-835
Great Salt Plains	-0.42	-4,541
Kaw	0.81	-21,491
Northeast		
Birch	-1.09	-1,906
Copan	-0.53	1,549
Fort Gibson	-6.85	-17,765
Grand	0.00	2,760
Hudson	-0.16	7,735
Hulah	0.21	1,440
Keystone	-2.86	-25,863
Oologah	-2.83	5,379
Skiatook	-1.38	-67,247
West Central		
Canton	-1.95	-31,938
Foss	-0.78	-19,470
Central		
Arcadia	-0.43	-765
Heyburn	-0.66	-355
Thunderbird	-0.91	-14,165
East Central		
Eufaula	-2.58	-34,308
Tenkiller	-2.78	6,026
Southwest		
Fort Cobb	-0.95	-4,323
Lugert-Altus	-6.56	-96,567
Tom Steed	-1.04	-25,443
South Central		
Arbuckle	-1.15	-5,355
McGee Creek	-0.24	-364
Texoma	-1.50	-332,914
Waurika	-0.84	-19,115
Southeast		
Broken Bow	-1.80	-19,908
Hugo	-1.32	-10,260
Pine Creek	-1.50	-3,831
Sardis	-0.55	-7,632
Wister	-1.65	3,164

CLIMATE DIVISION	Standardized Precipitation Index (through June 2011)				Palmer Drought Severity Index
	3-month	6-month	9-month	12-month	July 2, 2011
Northwest (1)	Extremely Dry	Exceptionally Dry	Very Dry	Very Dry	Extreme Drought
North Central (2)	Very Dry	Very Dry	Very Dry	Moderately Dry	Moderate Drought
Northeast (3)	Near Normal	Near Normal	Moderately Dry	Near Normal	Mild Drought
West Central (4)	Extremely Dry	Extremely Dry	Extremely Dry	Very Dry	Extreme Drought
Central (5)	Moderately Dry	Very Dry	Very Dry	Very Dry	Severe Drought
East Central (6)	Near Normal	Near Normal	Very Dry	Moderately Dry	Mild Drought
Southwest (7)	Very Dry	Extremely Dry	Extremely Dry	Moderately Dry	Extreme Drought
South Central (8)	Very Dry	Extremely Dry	Extremely Dry	Very Dry	Extreme Drought
Southeast (9)	Near Normal	Moderately Dry	Very Dry	Very Dry	Moderate Drought

For more drought information, and to obtain updated information on Oklahoma's drought and moisture conditions, go to www.owrb.ok.gov/supply/drought/drought_index.php.

Linda Lambert, Chairman • Ford Drummond, Vice Chairman • Joe Taron, Secretary

Tom Buchanan • Ed Fite • Marilyn Feaver • Rudy Herrmann • Kenneth K. Knowles • Richard Sevenoaks

Enhancing the quality of life for Oklahomans by managing, protecting and improving the state's water resources to ensure clean, safe, and reliable water supplies, a strong economy, and a healthy environment.



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FINANCIAL ASSISTANCE PROGRAM UPDATE

Loans & Grants Approved as of June 2, 2011

FAP Loans—327 for \$706,125,000

The OWRB's Financial Assistance Program (FAP), created by the State Legislature in 1979, provides loans for water and wastewater system improvements in Oklahoma. The tremendous popularity of the bond loan program is due, in part, to extended payoff periods of up to 30 years at very competitive interest rates, averaging approximately 4.762 percent since 1986.

CWSRF Loans—243 for \$1,007,891,004

The Clean Water State Revolving Fund (CWSRF) loan program was created in 1988 to provide a renewable financing source for communities to use for their wastewater infrastructure needs. The CWSRF program is Oklahoma's largest self-supporting wastewater financing effort, providing low-interest loans to communities in need.

DWSRF Loans—129 for \$693,114,642

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.

REAP Grants—554 for \$48,961,486

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—562 for \$33,482,977

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 agency's financial assistance strategy.

Drought Response Program Grants—2 totaling \$200,000

Through the OWRB's Drought Response Program, funding is available for communities in most dire need during state drought emergencies declared by the Governor. A maximum of \$300,000 is diverted from existing OWRB Emergency Grant funds to establish the Program.

American Recovery & Reinvestment Act Funding—\$60,617,376

Through the OWRB's conventional CWSRF and DWSRF loan programs, ARRA funds are utilized to provide additional subsidization to Oklahoma communities for water and wastewater infrastructure improvements as well as to provide benefits to the state's environment and create jobs for Oklahoma workers.

Total Loans/Grants: 1,817 for \$2,489,775,110
Estimated Savings: \$869,877,571

Applicants eligible for water/wastewater project financial assistance vary according to the specific program's purpose and requirements, but include towns and other municipalities with proper legal authority, various districts established under Title 82 of Oklahoma Statutes (rural water, master/water conservancy, rural sewage, and irrigation districts), counties, public works authorities, and/or school districts. Applications for agency financial assistance programs are evaluated individually by agency staff. Those meeting specific program requirements are recommended by staff for approval at monthly meetings of the nine-member Water Board.

**For more information, call 405-530-8800
or go to www.owrb.ok.gov/financing.**