


**Volume 1 Issue 4      Division of Water Resources      October 2008**

<b>Inside This Issue</b>	<p><b>New website and email addresses</b> The Division of Water Resources has a new home page at <a href="http://www.ksda.gov/dwr">www.ksda.gov/dwr</a> and employee email addresses are changing, too. Employee email addresses will now be <a href="mailto:firstname.lastname@kda.ks.gov">firstname.lastname@kda.ks.gov</a>. Contact information, including names, addresses, telephone numbers and email addresses, are available from the DWR home page and each of DWR program area home page under the "contact" link at the top of each page.</p> <p><b>Program newsletters available</b> The dam safety, floodplain and the Subbasin Water Resource Management programs publish electronic newsletters that can be delivered directly to your email in box. Contact <a href="mailto:sherry.fergel@kda.ks.gov">sherry.fergel@kda.ks.gov</a> to receive the floodplain newsletter and <a href="mailto:beth.cooper@kda.ks.gov">beth.cooper@kda.ks.gov</a> to receive the dam safety newsletter. You can subscribe to receive subbasin newsletters online at <a href="http://www.ksda.gov/subbasin/mailling_list/">www.ksda.gov/subbasin/mailling_list/</a>.</p> <p><b>Small dam owner seminar</b> Learn how to protect your property at the small dam owner seminar. The seminar is at 1 p.m. Thursday, October 23, at the Ellis city building, 815 Jefferson Street, Ellis. The seminar will cover hazard classification, dam care and causes of dam failures. For registration information, call Beth Cooper at (785) 296-0573, or email her at <a href="mailto:beth.cooper@kda.ks.gov">beth.cooper@kda.ks.gov</a>. Learn more about the seminar at <a href="http://www.ksda.gov/structures/content/194/cid/1299">http://www.ksda.gov/structures/content/194/cid/1299</a></p> <p><b>Hydrologic modeling tools predict future water conditions</b> Computerized numerical models have become the most widely accepted tool for accurately depicting conditions and interactions within aquifers and stream systems. Once a model has been calibrated to closely replicate historical conditions, it can be used to predict responses to future changes. For example, recharge can be increased or withdrawals decreased as a result of management strategies.</p> <p>DWR advocates collaboratively developing hydrologic models involving stakeholders, independent expert peer reviews and technical advisory committees. This results in models in which everyone can have a high degree of confidence.</p>
New website and email addresses	
Program newsletters available	
Small dam owner seminar	
Hydrologic modeling tools	
Proposed IGUCA regulations	
Coordinating with groundwater management districts	
Interstate compacts update	
Republican River Compact annual meeting	
Chapman floodplain lessons learned	
Notifying DWR of completed diversion works	
Impairment complaints	
<b>New Staff</b>	
Lynette Brungardt in the Garden City Field Office	Currently DWR and partner agencies are involved in a number of collaborative processes for models of the following:
Ryan Challacombe in the Stream Obstructions Program	<ul style="list-style-type: none"> <li>• Groundwater Management District 3</li> <li>• Northwest Kansas/ Groundwater Management District 4</li> <li>• Groundwater Management District 5</li> <li>• Upper North and South Forks Solomon River</li> <li>• Lower Smoky Hill River.</li> </ul>
<b>Calendar of Events</b>	

<p><b>October 7</b> 6 p.m. Equus Beds GMD 2 Board Meeting 313 Spruce Street Halstead</p>	<p>These models are in various stages of development, ranging from process initiation to final testing. Once complete, the models will be used to help forecast conditions under various management scenarios, including the no-action approach. For more information about hydrologic models, visit <a href="http://www.ksda.gov/subbasin/content/317">www.ksda.gov/subbasin/content/317</a>.</p>
<p><b>October 8</b> 9 a.m. Southwest Kansas GMD 3 Board Meeting 409 Campus Drive Garden City</p>	<p><b>Proposed IGUCA regulations increase due process</b> Following the 2008 legislative session, the Kansas Department of Agriculture worked with stakeholders to develop a set of administrative rules and regulations designed to address concerns expressed by legislators and constituents.</p>
<p><b>October 10</b> Deadline to file for flex accounts</p>	<p>The proposed regulations provide more levels of due process and propose separate hearings for determining whether an intensive groundwater use control area is warranted and what the goals and corrective controls should be. An independent hearing officer will preside over the first hearing. The proposed regulations also require periodic review hearings for all existing and any new IGUCAs created after the regulations go into effect. They also require data exchange and interaction between the chief engineer and a groundwater management district before the state can initiate an IGUCA within a GMD.</p>
<p><b>October 14</b> 7 p.m. Big Bend GMD 5 Board Meeting 125 S Main Street Stafford</p>	<p>The proposed regulations increase stakeholder participation and provide more opportunities for input in IGUCA proceedings. They currently are under review by the Department of Administration and the Attorney General's Office.</p>
<p><b>October 21</b> 9 a.m. Western Kansas GMD 1 Board Meeting 906 W 5th Street Scott City</p>	<p>A public comment period and hearing will be announced before the end of calendar year 2008. More information about the proposed regulations is available at <a href="http://www.ksda.gov/dwr/content/308/cid/1496">www.ksda.gov/dwr/content/308/cid/1496</a>.</p>
<p><b>October 23</b> 1 p.m. Small Dam Owner Seminar City of Ellis Office 815 Jefferson Street Ellis</p>	<p><b>Coordinating with groundwater management districts</b> Chief Engineer David Barfield continues to work closely with the groundwater management districts. During his first year as chief engineer, he visited all GMD boards and coordinated with GMD managers on several issues, including hydrologic modeling, management programs and administrative regulations for intensive groundwater use control areas. Some positive outcomes from this interaction are a heightened interest by the GMDs in defining the "public interest" in their districts and continuing progress toward developing and implementing strategies to extend the useful life of the Ogallala-High Plains aquifer. For more information about GMDs, visit <a href="http://www.ksda.gov/appropriation/content/295">www.ksda.gov/appropriation/content/295</a>.</p>
<p><b>November 6</b> 10 a.m. Northwest Kansas GMD 4 Board Meeting 1175 S Range Street Colby</p>	<p><b>Interstate compacts update</b> The Republican River Compact and Kansas-Colorado Arkansas River Compact continue to be time and resource-intensive for DWR staff.</p>
<p><b>November 6-7</b> Kansas Water Authority Meeting Pittsburg</p>	<p>In the Republican River Compact, Chief Engineer David Barfield and his team of experts analyzed a plan by Colorado to come into compliance by constructing and operating a pipeline to move groundwater to augment Republican River flows. Kansas, Colorado and Nebraska are working on the modeling and accounting procedures related to this proposal.</p>
<p><b>November 11</b> Veterans Day (state</p>	

offices closed)	
<b>November 12</b> 9 a.m. Southwest Kansas GMD 3 Board Meeting 409 Campus Drive Garden City	Barfield also put Nebraska on formal notice that their noncompliance with the Republican River Compact will not be tolerated. The matter is headed for nonbinding arbitration and, if it remains unresolved, it will be brought before the U.S. Supreme Court.
<b>November 13</b> 7 p.m. Big Bend GMD 5 Board Meeting 125 S Main Street Stafford	Litigation over the Arkansas River Compact is nearing an end, as the special master issued a final decree earlier this year. An exception filed by Kansas is pending oral argument before the U.S. Supreme Court in December. More about interstate water issues is available online at <a href="http://www.ksda.gov/interstate_water_issues">www.ksda.gov/interstate_water_issues</a> .
<b>November 18</b> 9 a.m. Western Kansas GMD 1 Board Meeting 906 W 5 <sup>th</sup> Street Scott City	<b>48<sup>th</sup> annual meeting of the Republican River Compact Administration</b> The Republican River Compact Administration convened August 13, 2008, for its annual meeting in Lincoln, Nebraska. Nebraska Commissioner and Chairman Brian Dunnigan asked each state to report on its actions from the past year. Colorado reported that they are working on an augmentation pipeline proposed to deliver as much as 15,000 acre-feet of water to the Nebraska state line on the North Fork Republican River. Nebraska reported its progress to come into compliance. Kansas reported on its progress to develop new programs to retire water rights in areas of a declining aquifer.
<b>November 27-28</b> Thanksgiving (state offices closed)	
<b>December 4</b> 10 a.m. Northwest Kansas GMD 4 Board Meeting 1175 S Range Street Colby	After hearing reports from the U.S. Geological Survey, Army Corps of Engineers and the Bureau of Reclamation, the administration considered past violations by both Nebraska and Colorado. Kansas Commissioner David Barfield raised concerns about Nebraska's violation the water-short year tests for 2006 and 2007, and violations by both Nebraska and Colorado of the first five-year compliance test. Colorado Assistant Attorney General Pete Ampe reported on progress made toward nonbinding arbitration. He expects the formal process to begin within 30 days.
<b>December 4</b> Middle Arkansas Model Meeting	Issues to be addressed by arbitration were outlined in an administration resolution adopted in May at the close of a series of special meetings aimed at reaching agreement. The issues recorded in the May resolution are being refined as the arbitration process moves forward.
<b>December 8-9</b> KS-CO Arkansas River Compact Annual Meeting Lamar, Colorado	The engineering committee could not agree on the data inputs, so a final accounting was not included in their report. The administration, as a routine matter, directed the legal and engineering committees to continue their assignments with one exception. The administration could not agree to direct the engineering committee to complete their compact accounting. Barfield made motions to improve compact data exchange between the states, which were seconded by Colorado but failed to get the required unanimous vote for adoption.
<b>December 9</b> 6 p.m. Equus Beds GMD 2 Board Meeting 313 Spruce Street Halstead	
<b>December 10</b> 9 a.m. Southwest Kansas GMD 3 Board Meeting	Barfield offered for the meeting record a preliminary accounting for 2007 based on the final settlement stipulation, currently adopted accounting principles and Kansas' interpretation of the disputed issues. Barfield observed that the 2007 accounting is the first five-year normal test accounting and the second water-short year accounting of the final settlement stipulation adopted by the Supreme Court in 2002. He recognized the efforts of both Colorado and Nebraska to come into

<p>409 Campus Drive Garden City</p> <p><b>December 11</b> 7 p.m. Big Bend GMD 5 Board Meeting 125 S Main Street Stafford</p>	<p>compliance, but pointed out “these efforts have failed to bring them into compliance.” He noted Colorado has overused its allocation by 52,600 acre-feet in the first five years, directly depriving Kansas of 12,370 acre-feet on the South Fork Republican River. He noted that Nebraska is over its five-year allocation by 117,790 acre-feet. He also noted that Kansas has never been out of compliance with either test.</p> <p>The meeting concluded with recognition of Ann Salomon Bleed for her years of service to Nebraska.</p>
<p><b>December 16</b> 9 a.m. Western Kansas GMD 1 Board Meeting 906 W 5<sup>th</sup> Street Scott City</p>	<p><b>Chapman floodplain lessons learned</b> A tornado struck the City of Chapman in Dickinson County on June 11, 2008. Some structures were completely demolished while others received substantial damage. The city quickly began educating residents about substantial damage requirements outlined in their floodplain management ordinance. Information packets were distributed and public meetings were held within days of the event.</p>
<p><b>December 25</b> Christmas (state offices closed)</p>	<p>The eastern and southern parts of Chapman are special flood hazard areas. The flooding sources are Chapman Creek on the east and the Smoky Hill River on the south. The path the tornado took began at in southwest Chapman, where the flood zone AE begins, and continued northeast. Many structures in the special flood hazard area were damaged.</p>
<p><b>Jan. 1</b> New Year’s Day (state offices closed)</p>	
<p>From the Field</p> 	<p>A basic tenet of the community’s floodplain management requirements are the elevation or flood proofing requirements for substantially damaged structures prior to rebuilding. Staff from Division of Water Resources and volunteers from Kansas Association of Floodplain Managers worked in Chapman to explain the regulations to homeowners, business owners and school officials.</p>
<p>Storm Clouds Photo taken by Kim Feldkamp Dam Safety Team Leader</p>	<p>A team from FEMA helped make the residential substantial damage estimations for the city. More than 50 structures were deemed substantially damaged. Substantial damage requirements affected homes, schools and churches. The city notified property owners as soon as the damage estimates were finalized.</p> <p>Disaster Declaration FEMA-1776-DR was issued for Kansas on July 9, 2008. This declaration was for Chapman and all other Kansas counties affected by severe storms, tornadoes and flooding that took place between May 22, 2008, and June 16, 2008. Hazard mitigation grant program funds were made available to Chapman to help individuals who met certain criteria. Program funds can be awarded to a community to help property owners with the cost of elevation, safe room construction, or to build a shelter. Grants can be awarded only if the community agrees to partner in the process and the community has a hazard mitigation plan in place. Dickinson County is working on its hazard mitigation plan at this time. The requirement was waived for Chapman so assistance can be made available while their plan is being developed.</p> <p><b>Notifying DWR of completed diversion works</b> After a permit to appropriate water for beneficial use is issued by the Division of Water Resources, the permit holder must complete the</p>

authorized diversion works within the timeframe specified in their permit. The permit holder also must notify the chief engineer when all diversion works are in place and ready to be inspected. "Diversion works" means any well, pit, pump site, (stream bank installation) or dam, and the pump, power unit or other equipment necessary to bring water under control so that it can be put to beneficial use. A water flowmeter and water level measurement tube must also be installed.

Approved permits generally allow the balance of the current year plus one year to complete diversion works. If a permit holder is unable to complete the diversion works within the time allowed, they may request an extension of time. Such requests must be submitted before the deadline to complete the diversion works. When requesting an extension of time, the applicant must explain their plans and timeframe for completing the diversion works, the progress that has been made and the reason why the diversion works are not complete. If the total elapsed time has been more than 16 months, the owner must submit a copy of a contract with a well driller, or other information substantiating the intent to complete construction. If the total time allowed equals or exceeds 24 months, an extension of time may be granted only if the applicant demonstrates that circumstances beyond his or her control prevented the diversion works from being completed.

Access the Request Extension of Time to Complete form at [www.ksda.gov/includes/document\\_center/appropriation/DWR\\_forms/1203\\_15.pdf](http://www.ksda.gov/includes/document_center/appropriation/DWR_forms/1203_15.pdf).

Access the Notice of Completion of Diversion Works form at [www.ksda.gov/includes/document\\_center/appropriation/DWR\\_forms/1203\\_11.pdf](http://www.ksda.gov/includes/document_center/appropriation/DWR_forms/1203_11.pdf).

When necessary, DWR will notify permit holders or owners by certified mail at least 60 days prior to the expiration of the time to complete the diversion works.

After the office of the chief engineer has been notified of completion of the diversion works, a field inspection is conducted to determine rates of water diversion; where and how the water has been used; and other details of the actual operation related to perfecting -- or developing -- the water right. These tests will determine the maximum and normal rates of water diversion.

The Water Appropriation Act and its rules and regulations require the chief engineer to dismiss a permit if the holder fails to notify the chief engineer that the diversion works are complete and pay the inspection fee.

### **Impairment Complaints**

A founding principal of Kansas water law is first in time, first in right. That means water rights are assigned a priority date to establish who has first right to water. This allows the Division of Water Resources to protect a sometimes scarce water resource for those who established their rights first from than those who came along later.

In times of plenty, there may be enough water to satisfy all water rights.

However, in times of water scarcity, those who have earlier, or more senior, water rights are entitled to satisfy those rights before those who have rights junior to them. The procedures for distributing water between users when a more senior right is being impaired are outlined in Kansas law (K.S.A. 82a-706b) and regulations (K.A.R. 5-4-1).

### **Steps to an Impairment Complaint**

First, a water right holder who believes that his or her water right is being impaired by water use related to a newer water right, he or she must file a written complaint with the chief engineer, or his or her authorized representative. That usually is the water commissioner in charge of the field office that serves the area where the water rights are held by the complainant. Examples of typical impairment complaints are:

- surface water from a stream is not reaching a senior water right holder because of an upstream diversion by a junior water right;
- a well authorized by a senior water right is not able to pump a sufficient amount of water to satisfy that right because of significant impacts due to pumping at one or more nearby wells authorized by junior water rights.

Second, an investigation of the physical conditions involved is conducted by the chief engineer or his/her authorized representative. Sometimes physical conditions are easily ascertained, such as a junior, upstream water right preventing water from flowing downstream to a senior water right. At other times, particularly in cases involving wells, more extensive investigation may be needed. In these cases it may be necessary to:

- determine the condition of the well and pump system of the complainant to determine if those are functioning properly and if the well is fully penetrating the aquifer;
- conduct pumping tests to determine aquifer properties;
- measure drawdown at the complainant's well and at nearby wells to track the effects of their pumping.

Investigations often entail using measuring equipment like pressure transducers to measure water levels and data loggers to record water level measurements and pumping rates. It may be necessary to take measurements over an entire pumping season and to analyze the data to determine whether a right is being impaired.

Determining whether a right is being impaired is done on a case-by-case basis on the physical conditions present and the water rights involved. Ultimately it comes down to whether the complainant with the senior water right can have that right satisfied by regulating junior water rights.

Third, a written investigation report is given to the complainant. The report indicates whether the investigation results substantiate the impairment claim. The complainant will be told if the investigation indicates that the impairment is not occurring, or if regulating junior rights will not provide any relief to the complainant.

Fourth, if the report indicates that junior water rights regulation will provide relief to the complainant, the complainant must make a written request to secure water to satisfy his or her prior right.

Fifth, the chief engineer, or his or her authorized representative, issues written legal notice and directive to other water users whose water use must be regulated so the complainant's prior rights are satisfied. When the quantity of water needed by the complainant has been delivered to his or her point of diversion (surface water intake, well, dam, etc.), or when the complainant discontinues his or her water use, water right holders whose water use was curtailed are allowed to resume using water. Likewise, if the water source should increase, the chief engineer, or his or her authorized representative, may allow some or all of the regulated junior water rights to resume use if it will not impair the senior water right.

An alternative to regulating junior water rights is for the impaired water right holder and impairing water right holder to work out a mutually acceptable arrangement to allow rotating water use. Facilitated mediation is available through the Kansas Water Office for those individuals who would like to resolve disputes through mutually acceptable methods.