



Volume 1 Issue 2

April 2008

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Calendar of Events

April 2
Small Dam Owner Seminar
1 p.m.
County Extension Office
Wichita

April 2
Significant Dam EAP Seminar
10 a.m.
County Extension Office
Wichita

April 15
WRAPS Conference
Salina

April 23
Solomon Working Group Meeting
6 p.m.
Stockton

May 7
Basics of the NFIP
Cherokee

Division of Water Resources welcomes new staff

Chasity Lloyd—Subbasin Water Resource Management Program, environmental technician III

Amanda Hunsaker—Water Management Services, data entry

Brenda Harmon—Water Management Services, senior administrative specialist for the chief engineer

Trevor Huhn—Water Structures Program, dam safety engineer

Dave Jones—Water Use Compliance and Enforcement, environmental scientist I



Republican River Compact update

As a result of Nebraska's failure to comply with terms of a 2002 settlement of the 1998 Republican River Compact Supreme Court litigation, on December 19, 2007, Chief Engineer and Compact Administrator David Barfield sent a letter to his Nebraska counterpart demanding immediate reductions in groundwater use and monetary compensation for past shortages. Nebraska's February 4, 2008, response was that they did not agree with Kansas' analysis and demands. As result, on February 8, 2008, Barfield requested the dispute be considered by the compact administration, the first step in a dispute resolution process prescribed by the settlement.

The compact administration met March 11 and 12 to consider Kansas and Nebraska's dispute over Kansas' proposed remedy for Nebraska's overuse of Republican River basin water in 2005 and 2006 in violation of the compact and final settlement. At the meeting, Nebraska gave a presentation on its plan to reach compliance. While Kansas has reserved the right to proceed with the dispute resolution process at any time, compact commissioners agreed to meet several times over the next couple of months to review these matters in more depth.

Colorado's first test of compliance will be determined this summer and it appears they will also be out of compliance with the Compact. At the March meeting, Colorado provided information on its proposed compliance pipeline to offset depletions. Colorado plans to purchase water in the North Fork Republican River basin and pipe it 12 and one-half miles to the North Fork Republican River at the Colorado-Nebraska state line. Kansas' stance is that Colorado is overusing its South Fork Republican River allocation and must also take action to get into compliance on the south fork. The compliance pipeline proposal has been referred to the compact administration's engineering committee for review. Under the settlement terms, all three states must approve the proposal.

A [fact sheet with more information \(PDF\)](#) on the current status this matter as well as much more information about the Republican River Compact and the final settlement stipulation is available online at: www.ksda.gov/interstate_water_issues/content/142.

Lower Republican River streamflow information now online

Granite

May 8
Basics of the NFIP
Manhattan



The Kansas Department of Agriculture has launched a new web page to help water users in the lower Republican River basin access information about streamflow conditions and whether water use will be curtailed to reach minimum desirable streamflow.

The web page is at <http://www.ksda.gov/news/id/154>

May 7-0
3i Show
Great Bend

"This is the time of year I start getting calls from irrigators with questions about streamflow and water use, and I intend to tell them that most of the information is now online," said Katie Tietz, water commissioner for the division of water resources Topeka field office. "The good news is that streamflow is adequate to allow water use."

May 13
Basics of the NFIP
Pratt

Under Kansas law, when flow drops below an established threshold, pumping restrictions are imposed to protect existing water rights and to meet in-stream water uses related to water quality, fish and wildlife, and recreation. These minimum desirable streamflow requirements were made part of the Kansas Water Appropriation Act by the 1984 Legislature, and they affect only those water rights granted after April 12, 1984.

May 14
How to read a FEMA Flood Map
Sedgwick County Public Works
Wichita

May 28
Big Blue River Compact Meeting
9:30 a.m.
Farm Bureau Building
Manhattan

Last June, the chief engineer of the division of water resources lifted pumping restrictions that had been in place since 2002 on 177 water rights along the Republican River in Clay, Cloud, Jewell, Republic and Washington counties. The restrictions were imposed because streamflow remained below minimum desirable streamflow values. Heavy precipitation in spring 2007 brought back higher sustained flows.

June 4
Small Dam Owner Seminar
6:30 p.m.
Public Library
Gardner

In recent years, water users in the Republican River basin have been allowed to enter into agreements with the division of water resources to use at least some groundwater or surface water, even while minimum desirable streamflow administration is underway. The chief engineer decided to make consent agreements available again in 2008, but only if and when MDS administration becomes necessary.

[Click here to view all events](#)

For the time being, Republican River flows remain above MDS trigger levels. The agency will notify affected water users in the area if conditions change in the coming weeks and months requiring MDS administration.

Water right holders who want to know more about Republican River MDS issues are encouraged to check out the new web page or to contact the division of water resources field office in Topeka at (785) 368-8251 or Stockton at (785) 425-6787.

Dam Owners urged to inspect for damage after heavy rainfall



The Kansas Department of Agriculture's water structures program is urging dam owners to inspect their dams for signs of damage after heavy rainfall.

"Heavy Spring rains may put some dams under extra stress or even cause structural damage," said Matt Scherer, manager of the water structures program. "Dam owners need to be on the lookout for signs of damage and to report their concerns to either our

department or to a qualified engineer."

Some of the more common problems that develop after heavy rainfall are debris accumulating around the pipe and erosion of the bank and spillway. Less common problems, such as holes on the embankment, also can develop.

In rare instances, dams can fail and put life and property downstream at risk. Dam failures need to be reported to the dam safety program immediately by calling their emergency, toll-free number at (800) 915-6163.

Individuals with more routine questions about dams and dam safety, or who want to report nonemergency concerns, should call (785) 296-2933.

Watershed district filing deadline announced



While many watershed districts have obtained permits to construct of reservoirs, some have not applied for or obtained the required water appropriation permits for storing water in those reservoirs.

Since 2001, the division of water resources has worked through the State Association of Kansas Watersheds and with individual watershed districts in an endeavor to bring all districts into compliance with the Kansas Water Appropriation Act, which requires water appropriation permitting for any impoundment storing more than 15 acre-feet of surface water.

If an application is received on or before June 30, 2008, watershed districts can obtain one permit to appropriate water for all existing reservoirs that impound more than 15 acre-feet of surface water and are not already covered by a water appropriation. As a result, watershed districts pay only one application fee and one field inspection fee for all of their existing reservoirs. This gives the watershed district a single priority date for all of its permitted impoundments under these appropriations.

Many watershed districts have taken advantage of this opportunity. However, some districts need to comply with the current law and benefit from this opportunity. After June 30, 2008, watershed districts will have to file individual applications, with a filing fee, and pay a field inspection fee, for each site.

To take advantage of the filing window, please visit the “Forms” section of the DWR Water Appropriation Program web page to obtain the appropriate forms (Blanket Applications for Watershed Districts) <http://www.ksda.gov/appropriation/content/299>

Collaborative groundwater model development: turning model results into water management policy



In recent years, the Division of Water Resources has been involved in building numerical hydrologic models to help manage groundwater in targeted areas. While there is no protocol to construct hydrologic models, we believe being committed to collaborative processes is essential to achieving successful outcomes.

In the past, hydrologic model construction has typically been the responsibility of a single entity, with input from peer reviewers, agencies and interested constituents. However, input was typically limited, especially technically, and often was not included until the end of the model construction process. This generally led to failures: models built and then never used due to lack of stakeholder acceptance.

As we have learned, developing numerical hydrologic models for use in water management decisions must use a new paradigm that emphasizes collaboration. This new paradigm must encourage stakeholders to participate in the process.

In a presentation we will give at the Modflow and More 2008 Conference titled Groundwater and Public Policy, May 18 – 21, at the International Groundwater Modeling Center in Golden, Colorado, we will highlight the collaborative processes used for developing: 1) the Northwest Kansas Groundwater Model, and 2) the Middle Arkansas River Basin Groundwater Model. Both modeling processes were collaborative efforts that provided those constructing the model with technical input. The process allowed multiple experts to review model datasets and calibration targets, explore various modeling approaches, and to use a deliberative approach to determine when model construction was complete.

While the process requires greater commitment of total resources, these collaborative processes produced sound, practical, defensible models that are being used as tools to guide important water management policy decisions. Additional information about basin management is online at <http://www.ksda.gov/subbasin>

Kansas flood mapping initiative



Since Kansas launched its flood mapping initiative in 2003, Congress directed that FEMA's map modernization program include digitizing flood maps for the entire country within five years. Only 20 percent of the map panels will be updated with new flood analysis.

As the map modernization project reached the halfway point, FEMA conducted a midprogram evaluation that considered input from Congress, the U.S. Government Accountability Office, the Department of Homeland Security's inspector general and other stakeholders. This midprogram evaluation prompted adjustments that will result in better targeted, more accurate flood data while providing digital flood maps for a significant portion of the nation.

Multistage Process

Mapping takes place in stages, include scoping, approximate A zone analysis, incorporating detailed study analysis, redelineation and/or digital conversion, workmap production, preliminary flood insurance rate map (FIRM) distribution, and effective digital flood insurance rate maps (DFIRM) distribution.

Scoping

Scoping helps define and prioritize mapping needs in a county, and it gives communities an opportunity to share detailed information regarding their topography, hydrology or hydraulics that may not be readily available through state channels. This detailed information enhances the quality of the final map.

Scoping can be done at any time and it does not have to be tied to a mapping activity. It allows the Division of Water Resources and FEMA to identify needs and estimate their costs to prepare for when funding becomes available.

Scoping is under way in Jackson, Marion, Pottawatomie, Republic, Leavenworth and Osage counties.

Map Production

Map production includes flood zone analysis (approximate, detailed analysis, redelineation, and digital conversion) and workmap production.

Approximate A Zone Analysis

Approximate A zone analysis looks at stream basins that drain more than 1 square mile. The Zone A analysis allows the Division of Water Resources to identify inundation areas in a 1 percent flood. While it does not depict a base flood elevation on the flood insurance rate map, a layer in the GIS program identifies the water surface elevation.

Detailed Analysis

Detailed analysis of the 1 percent flood includes developing hydrology and hydraulics based on detailed topography. A detailed study is typically performed when there is evidence that current mapping efforts are inaccurate or when the community is growing toward areas at risk of flooding.

Redelineation

Redelineation is the process where existing base flood elevations are accurate, but the community has better topography to delineate the flood risk area.

Digital Conversion

Digital conversion involves converting the detailed study area on the map and into a digital format that can be used in a GIS system.

Workmap Distribution

Workmap distribution happens after the flood risk analysis has been performed. The map is submitted to FEMA for final review, and the Division of Water Resources also provides an unofficial map to the community to elicit feedback on technical and nontechnical issues. Nontechnical issues cover such things as road names and

corporate boundary errors.

Workmaps have been provided to Neosho, Butler, Douglas, Allen, Harvey, Wyandotte, Crawford and Reno counties.

Preliminary

FEMA preliminary maps can be protested or appealed by a community. Preliminary maps have been delivered to Ellsworth, McPherson, Cherokee, Johnson, Bourbon, Miami and Labette counties.

Effective DFIRM

Digital Flood Insurance Rate Maps (DFIRM) can be used to regulate flood insurance once they become effective. A community is sent a Letter of Final Determination (LFD) where the effective date is given to communities and they then have six months to adopt the appropriate ordinance for their community.

Sedgwick County effective February 2, 2007
Wabaunsee County effective March 19, 2007
Linn County effective November 2, 2007
Edwards County effective January 18, 2008
Lyon County effective February 20, 2008
Miami County effective August 19, 2008

Additional floodplain information is online at
<http://www.ksda.gov/structures/content/196/cid/1391>