

MONTHLY NEWS REVIEW

Vol. 2, Issue 8, August 2002

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Monthly News Review is prepared by the Oklahoma Climatological Survey. Its purpose is to provide a summary of weather and climate news or related issues that may help guide policy-makers in the Oklahoma Weather Center. Along with weather, climate, environmental, and science issues, the review includes issues on the national and state agendas and events that affect major businesses in Oklahoma that bear some relation to demands for weather-related information. The summaries and any opinions expressed herein are those of the author, and in no way reflect positions of the Oklahoma Climatological Survey or the University of Oklahoma.

2nd Conference Held 7/25; no further listing

- HR 4754 / S 2528: “National Drought Preparedness Act of 2002” no further action; in House Transportation and Infrastructure, Agriculture, and Resources committees and Senate Committee on Environment and Public Works (5/16)
- HR 4900: “Weather Safety Act” – no further action; Referred to the House Committee on Science (6/6)
- HR 64: “Strengthening Science at the Environmental Protection Agency” no further action; still in Senate Committee on Environment and Public Works (5/1)
- HR 3908: “North American Wetlands Conservation Reauthorization Act” no further action; still in Senate Committee on Environment and Public Works (5/8)
- HR 1370: amending The National Wildlife Refuge System Administration Act of 1966 – no further action; still in Senate Committee on Environment and Public Works (5/15)

AGENCY NEWS

NOAA Review (NOAA 7/3/2002) – NOAA’s Science Advisory Board met July 9-11 to review NOAA science and research programs. The advisory board is charged with advising NOAA leadership on both long and short-range strategies for research, education, the application of science, resource management, environmental assessment, and prediction. In addition to reviewing NOAA’s labs and programs, the board also heard presentations from the Climate Change Research Initiative, the NOAA Space Environment Center, and from the National Association of State Universities and Land Grant Colleges.

<http://www.publicaffairs.noaa.gov/releases2002/july02/noaa02r607.html>

Army Corps and Nature Conservancy announce partnership (OceanSpace 7/4/2002) – The U.S. Army Corps of Engineers announced the Sustainable Rivers Project, a partnership with the Nature Conservancy that is designed to restore and protect biodiversity while meeting human needs. The partnership is based upon earlier successes the two groups had in working together along the Green River in Kentucky.

<http://www.oceanspace.net/index.cfm?issue=195>

Federal employees morale low (Oklahoman 7/8/2002) – A new study by the Brookings Institution (www.brookings.org) highlights that most federal employees “took the job for its security, pay and benefits.” The study attributes low morale to poor technology and training, layers of bureaucracy, and little or no punishment for deadbeat co-workers. Brookings, known for its embrace of liberal causes, is also a leader in government reform issues.

Renfro named chair of state regents (Oklahoman 7/5/2002) – Carl Renfro was named chairman of the Oklahoma State Regents of Higher Education for 2002-03. Renfro, who has served on the board for seven years, cites increasing the number of college graduates as a prime goal through the “Brain Gain 2010” program. Renfro is chief executive officer for Pioneer Bank and Trust in Ponca City. Other regents are Marlin “Ike” Glass Jr. (vice-chairman), James Harrel, Joseph Cappy, Bill Burgess Jr., Leonard Easton Jr., Cheryl Hunter, John Massey, and Joe Mayer.

Water District ownership changes (Oklahoman 7/10/2002) – Kay County Rural Water District Number 6 will purchase the Hunter Rural Water Corporation. Hunter defaulted on its loan payments to the Rural Utilities Services (the former Farmers Home Administration). The Water District acquired a \$815,000, low-interest, 30-year loan from the Oklahoma Water Resources Board for the acquisition.

NOAA Manager inducted into Engineering Hall of Fame (NOAA 6/5/2002) – Gerald Dittberner, chief of the Advanced Systems Planning Division in NOAA’s National Environmental Satellite, Data, and Information Service (NESDIS), was inducted into the Alumni Hall of Fame of Theta Tau Engineering Fraternity. Dittberner had previously been program Manager for the GOES program, International Space Station, and worked with NASA Goddard data processing center for the Tropical Rainfall Measurement Mission. Dittberner has been with NOAA since 1995.

<http://www.publicaffairs.noaa.gov/releases2002/june02/noaa02r311.html>

STATE / LOCAL

Agencies cautious as new fiscal year begins (Oklahoman 7/1/2002) – After the severe cuts many agencies faced in the waning months of the past fiscal years, agency officials are more optimistic but realistic about expectations for the coming year. Budgets at several agencies were cut as much as 5% for fiscal year 2003, forcing several agencies to stretch already thin resources. Tourism and Corrections are two agencies that felt the crunch over the past year and are having to struggle again this year. However, there is a note of optimism, as officials point out that the state's revenue certification board has made more realistic projections of income from oil and gas revenues. Prices for natural gas were much less than projected last year, leading to the budget crisis. Revenues are coming up short of projections so far this new year, due largely to lagging sales taxes, but even with some shortages it is not likely that agencies will have to repeat the drastic cuts of the past several months.

State collects \$1 million above estimates (Oklahoman 7/10/2002) – The Office of State Finance reported that for the fiscal year ending June 30, the state collected about \$1 million more than expected from the revised target. The extra funds will be used to offset some of the cuts implemented during May and June of this year. The \$4.4 billion in total receipts for state government is still well short of the original \$4.8 billion estimate.

Agencies have more than \$1 billion in construction needs (Oklahoman 7/14/2002) – The state's Long-Range Capital Planning Commission identified more than \$1 billion in unfunded deferred maintenance and construction needs. Most heavily impacted is the Department of Tourism and Recreation, with \$100 million in capital needs that have been delayed for years already. The Commission reviews and prioritizes as many as 3,000 requests for improvement money each year. Most capital needs are funded with bond issues. Lawmakers are looking at Utah's method for maintenance needs. One percent of the Utah state budget is set-aside for deferred-maintenance, with a further requirement that funds be used for maintenance before any new construction is authorized. Funds are kept separate from agency budgets to prevent them being used for other purposes.

Parties watch state House (Oklahoman 7/11/2002) – With the Republican Party just two seats short of a majority in the state House of Representatives, there promise to be several heated contests this fall. Democrats hold a 52-49 edge going into the election, but 12 of the 14 open seats (where incumbents have chosen not to run again) are held by Democrats. Thirty-six House seats are uncontested, with Republicans holding a 19-17 edge. In the Senate, there are six open seats, while nine of the 24 seats up this year are unopposed, including Senate President Pro-Tempore-elect Cal Hobson (D-Lexington). Neither House Speaker Larry Adair (D-Stilwell) nor House minority leader Fred Morgan (R-Oklahoma City) drew opponents. At the national level, twelve candidates filed for the 4th District seat, vacated by J.C. Watts. The seat has national implications, especially considering that Democrats hold about a 60% majority in registration in the district.

I-40 bridge reopens early (Oklahoman 7/30/2002) – The I-40 bridge near Webbers Falls opened ten days ahead of schedule, the fastest project of its magnitude in Oklahoma’s and possibly the nation’s history. State Transportation Director Gary Ridley expressed surprise at her problems or unexpected delays, work progressed around-the-clock for nearly 50 days to rebuild the bridge section. The project cost is estimated at \$30 million, including detour and demolition costs. Gilbert construction will receive a bonus of \$144,000 per day for early completion, totaling nearly \$1.5 million. The bonus is about a third of the \$429,000 per-day cost of maintaining the detours. The U.S. Congress appropriated \$12 million for repair costs; the state will seek the remaining costs in an additional appropriation. [Note: A portable Oklahoma Mesonet station was set up at the bridge construction site to monitor temperature, humidity, and wind conditions. Gilbert Construction used an experimental technique to monitor the time for setting concrete, one in which on-site weather conditions are a critical factor in decision-making.]

County questions assistance for volunteer fire fighters (Oklahoman 7/11/2002) – Oklahoma County Commissioners delayed \$5,000 in funds for the Newalla volunteer Fire Department until attorneys could examine liability issues. The commissioners expressed concern about responsibility for employee retirement and benefits and legal liability. David Van Nostrand, director of emergency management for Oklahoma County wondered why liability is only now becoming an issue. Oklahoma County has provided funds to the Newalla Fire Department and about a dozen other small fire departments for the last 26 years. The delay coincides with cuts in state funding for the “highway levy” account that provides funds for rural projects.

Sandstone Creek Watershed first for rehabilitation (Oklahoman 7/22/2002) – Federal funds made available as part of the Farm Bill will be used to rehabilitate the Sandstone Creek Watershed dams in Roger Mills and Beckham counties. The watershed was the nation’s first small upstream flood-control project, but the dams have exceeded their 50-year lifespan. Construction is expected to begin this fall with a price tag of \$406,900. Oklahoma is home to more than 2,000 of the 10,000 small dams nationwide. Without such rehabilitation efforts, more than half would exceed their lifespan by 2015. Rep. Frank Lucas (R-Cheyenne) successfully inserted \$10 million for dam rehabilitation efforts into the 2002 Farm Bill.

Candidates seek chancellor position (Oklahoman 7/18/2002) – Oklahoma’s Chancellor of Higher Education post, becoming available due to the retirement of Hans Brisch, is attracting national attention, according to Regent Joe Mayer, chairman of the search committee. “There’s some real interest from very outstanding people in other state higher education systems”, according to Mr. Mayer. Leading Oklahoma candidates include Glen Johnson, president of Southeastern State University in Durant, and Tom Cole, a Republican campaign consultant who is presently running for the 4th Congressional District seat.

BUSINESS

Williams stock plummets as debt earns ‘junk’ rating (Oklahoman 7/24/2002) – Williams Companies stock dropped as low as 78 cents per share after rating agencies downgraded their debt to “junk” status. The cut in the credit rating follows Williams’ inability to refinance a \$2.2 billion credit line without offering collateral and difficulty in issuing more shares to raise cash. The debt rating could cost them \$400-600 million in additional interest costs. The deteriorating market for their energy trading unit was cited as a principal factor in the decline of the company’s value. Williams is seeking a joint-venture partner for their energy trading unit and has not ruled out a sale of the unit, although market conditions are not favorable for a sale at this time.

Warm June boost retail sales (AP 7/12/2002) – After a cool spring that helped depress retail sales, consumers flocked back into stores in June as the weather warmed up. Discounters and moderate-priced stores were the biggest winners, including Wal-Mart, Kohl’s, and Target. June is critical in the retail business, accounting for 9.8% of annual sales – second only to the 15.5% of sales in December.

Boomers leaving farming (AP 7/14/2002) – Oklahoma, like the national trend, is losing its baby boomers in the farming industry. Rising costs, high risk, and little margin for error have driven the younger generation to pursue more lucrative means of living. The result is that the mean age of farmers has risen by nearly four years, to 54.3 years, since 1982. Experts expect the trend to become more pronounced as many boomer farmers switch to other types of work. This should lead to further consolidation by large agri-business operations, with expectations of the largest-ever turnover of agricultural wealth over the next 10-15 years. Small farmers are likely to tend toward the niche markets, such as small livestock enterprises.

WEATHER

Tropical Storm Arthur remains harmlessly at sea (NOAA 7/16/2002) – Tropical Storm Arthur, the first named storm of the 2002 Atlantic hurricane season, formed off the east coast of the United States and moved rapidly northeastward. Winds up to 60 miles per hour affected portions of Newfoundland, Canada, but little concern was associated with its path.

<http://www.noaanews.noaa.gov/stories/s941.htm>

Tornado count well below average (NOAA 7/25/2002) – Through July 24, only 451 tornadoes were confirmed in the United States, well below the average of 914 for the same period. This marks the lowest total for the period since 1988. There also have been far fewer deaths – 11 so far as compared to a ten-year average of 46. Dan McCarthy, Warning Coordination Meteorologist for the Storm Prediction Center, attributes a cold air outbreak across the southeast in February and March, delaying the start of the tornado season. Peak tornado activity typically occurs between March and early July.

<http://www.noaanews.noaa.gov/stories/s946.htm>

Drought situation worsening (NOAA 7/17/2002) – Through the end of June, 36 percent of the contiguous United States was in severe to extreme drought, according to the Palmer Drought Index. Arizona, Utah, and Colorado posted their driest-ever January-June period on record, and much of the West, Southeast, and Mid-Atlantic regions reported below- or much-below-normal precipitation for the period. New England and the upper Midwest reported above-normal precipitation during the same period. The Mid-Atlantic posted its driest July-June period on record, extending an ongoing four-year drought that is critically affecting water supplies in the region. More than 80 percent of pastures and range were classified as poor to very poor in New Mexico, Arizona, and Colorado, with conditions worsening in California, Wyoming, Nebraska, and the Dakotas. Associated wildfires burned more than 2.8 million acres through June 2002, twice the total burned during the same period of the severe 2000 fire season. In 2000, 19 percent of the contiguous United States was classified as severe to extreme drought. The greatest extent of drought was 1934 when 63 percent of the U.S. suffered from severe to extreme drought conditions. The latest drought outlook indicates a return of drought conditions to the Northeast, while conditions should ease somewhat in the Southeast. Drought conditions are expected to persist throughout the West until wintertime snows, although the Great Plains should see some improvement by October.

<http://www.noaanews.noaa.gov/stories/s943.htm>

<http://www.noaanews.noaa.gov/stories/s944.htm>

Conservation rules lifted during drought (Oklahoman 7/13/2002) – The entire state of Oklahoma has been added to a listing of states or counties that may use conservation program lands for hay or grazing. The Secretary of Agriculture has designated authority to the state's Farm Service Agency to determine which counties will qualify for use of conservation lands. The move allows farmers and ranchers in drought-stricken area to temporarily house their livestock on other lands, even outside of the immediate drought-affected area, until conditions improve. The restrictions were lifted for 17 states, and had been lifted in far northwestern Oklahoma since May. The release of land extends until August 31 or until conditions improve, whichever comes first.

Drought brings grasshopper infestation (AP 7/18/2002) – Grasshoppers are swarming across much of the West, in the largest infestation since World War II. Nebraska, New Mexico, Idaho, Oregon, and South Dakota are the hardest-hit states. Last year, grasshoppers and Mormon crickets caused \$25 million in crop damages in Utah alone, but figures for this year's impacts are not yet available. Extremely dry weather speeds up the maturation of some grasshopper species and the mild winter allowed more of their young to survive. The hot, dry weather also keeps bird and rodent populations down, the primary predators of grasshoppers, and reduces fungal diseases that reduce grasshopper populations. The USDA's Animal and Plant Health Inspection Service has \$3.6 million available to farmers for surveys and technical assistance.

(Oklahoman 7/25/2002) – Like other western states, a grasshopper infestation has been growing in Oklahoma. Problems are most severe in the western third of the state, except in the Panhandle where reports of damage are spotty. South central and southeast Oklahoma are also hard hit, with reports of the pests eating soybean plants down to ground level. Counts in Oklahoma County are growing, and likely to be the worst levels since the summer of 1998.

Clean Air Alerts expected to be above-average (Oklahoman 6/25/2002) – El Nino is expected to contribute to more clean air alerts in Oklahoma City this summer, according to Jerry Church, spokesman for the Association of Central Oklahoma Governments. Church said that the Oklahoma City metro area has an average of about 12 alert days per year, but 1998 was particularly brutal with a record 14 days, which he attributes to El Nino. Given predictions of a developing El Nino, the Association expects more than the usual number of clean air alert days due to “rumors that a new El Nino is occurring.” Most alert days occur between July 1 and September 14.

Disaster funds used for wildfire preparedness (Oklahoman 7/10/2002) – Funds from the 2000 wildfires and 2001 ice storm were used to purchase new water buckets to be used by helicopters when fighting fires. Seven buckets were acquired at a cost of \$77,000. An additional \$48,500 was used to upgrade radios that allow pilots to communicate with each other, forestry officials, local police, and fire departments. Before the radios were purchased, pilots had to guess where to drop the water. At times, pilots would put out backfires lit by fire crews on the ground to create fire breaks.

Doctors seek to stem rise in heat-related deaths (Oklahoman 7/2/2002) – Each year, more people die from causes related to heat than from hurricanes, lightning, tornadoes, floods, and earthquakes combined. Since 1990, 151 Oklahomans have died from heat-related illnesses, half of those in July and most of them 65 years of age or older. Doctors note that even though people in places such as Oklahoma may be acclimated to the heat, they are actually more susceptible to it. Tolerance means that people begin to sweat sooner and faster, meaning that someone “used to the heat” actually needs to drink more fluids than those not acclimated. Children are more susceptible than adults because they have a lower sweating capacity, produce more heat during activity, and wait until they are thirsty to drink fluids, meaning they are already dehydrated. Adults who live in warm climates may be more susceptible on weekends or vacations because they spend much of their time in air-conditioning during the routine day. Electric fans are helpful, but once temperatures climb above the mid-90s, fans will not prevent heat-related illness.

CLIMATE

El Nino returning, but weaker than past events (NOAA 7/11/2002) – NOAA’s climate experts report that a mature El Nino is likely to develop within the next few months, but it will not be as powerful as the 1997-98 event. Scientists note the presence of factors typically related to El Nino, including consecutive months of above-normal sea-surface temperatures and abnormally heavy rainfall in areas of South America. Past events have suppressed Atlantic hurricane activity, but this event may not be strong enough to exert much influence.

<http://www.noaaneews.noaa.gov/stories/s938.htm>

Ice sheet flow directly related to melting rate (NASA 6/6/2002) – Scientists at NASA’s Goddard Space Flight Center have found that glacial melting directly relates to the speed at which an ice sheet moves. From 1996 through 1999, the team noted that as melt-water increased, it quickly percolated downward to the base of the ice sheet, lubricating it from the underlying rock. They discovered a seasonal effect, with summer rates being more than 3 inches per day faster than winter rates. Previously, it was thought that water took years to seep through the ice sheet. A related study noted a 20% increase in melting over the last 21 years, associated with a 0.25 degree C increase in summer temperatures. These same processes may have contributed to the demise of the Laurentide ice sheet 10,000 years ago and the extensive melting of the Greenland ice sheet 125,000 years ago during the last interglacial period.

<http://www.gsfc.nasa.gov/news-release/releases/2002/02-89.htm>

Scientist blames failure of monsoon on US warplanes (Ananova 8/2/2002) – The chief scientific officer at the Centre for Atmospheric Sciences in New Delhi claims that large volumes of greenhouse gasses, released by US warplanes in Afghanistan, Pakistan, and the Arabian Sea, “contributed to significantly deficient rainfall” over India.

http://www.ananova.com/news/story/sm_642813.html?menu=news.latestheadlines

ENVIRONMENT

Hog waste violations uncovered (Oklahoman 7/25/2002) – Investigators with the state’s Attorney General’s office and the state Agriculture, Food, and Forestry Department uncovered eleven environmental violations at Seaboard Farms’ swine operations in Major and Kingfisher counties. Investigators found evidence of nitrates leaking into groundwater. Violations included failure to maintain facilities, including waste retention structures, failure to maintain the liners of lagoons, failure to manage land application practices, and failure to ensure that waste handling conforms with Oklahoma’s water quality standards. Seaboard officials will meet with informally with officials on August 22 to discuss the situation, in hopes of avoiding a formal hearing before the state Board of Agriculture.

Oklahoma and Arkansas continue meetings (Oklahoman 7/9/2002) – Attorney General Drew Edmondson and Oklahoma Secretary of the Environment Brian Griffin met with their Arkansas counterparts in a continuing series of meetings aimed at resolving differences over water quality standards in rivers in Eastern Oklahoma. Oklahoma contends that runoff from poultry operations in western Arkansas cause high phosphorus levels in the rivers, while Arkansas argues that the proposed Oklahoma limits are too stringent. The negotiators reported progress, with the next meeting scheduled for early September. In the interim, four subgroups will work on various aspects of the problem: point-source pollution (such as municipal sewage treatment), nonpoint sources (such as runoff from fields), compliance issues, and a group to draft a proposed settlement document. Recent phosphorus levels on the Illinois River have been measured at 0.271 milligrams per liter; Oklahoma wants to drop that to 0.037 milligrams per liter.

Remediation project starts at Tar Creek (Oklahoman 7/5/2002) – Oklahoma initiated a \$500,000 project to grow vegetation in some portions of the 40-square-mile Tar Creek Superfund site near Miami, OK. The project is to evaluate the viability of converting the area to wetlands. Full implementation of such a plan would cost about \$250 million, which includes relocating people from the affected area.

Endangered Turkeybeads thrive after fire (National Geographic 7/1/2002) – Turkeybeads, an endangered flowering plant, are now thriving in parts of Virginia after fires in 1999. In the mid-1990s, the Park Service changed to a policy of prescribed burns to control dense vegetation. The periodic fires reduce competition among plants, clear tree canopies to let in more light, and produce nitrogen-rich soil.

<http://news.nationalgeographic.com/news/science.html>

Nitrogen-fixing genes identified (Nature 6/27/2002) – Scientists at the Sainsbury Laboratory in the United Kingdom identified a gene that allows plants to produce their own nitrogen. The gene, present in legumes, may lead to genetically-modified crops such as wheat and rice that will produce their own nitrogen. Such crops would reduce the demand for fertilizer, whose production is energy-intensive and has serious environmental side-effects.

<http://unisci.com/stories/20022/0628024.htm>

SCIENCE & TECHNOLOGY

Note: UniSci News, an excellent source of information about scientific projects and studies, has ceased publication due to the unexpected death of Don Radler, founder and editor of UniSci News. UniSci broadened this report beyond the NOAA and NASA-based sources for much of the science and technology or climate information included. Suggestions for other comprehensive science information web sites are welcomed.

Cirrus cloud studies conducted in Florida (NASA 7/16/2002) – A NASA-sponsored research project in southern Florida, called CRYSTAL-FACE, is focusing on the role of cirrus clouds in global climate change. The project involves 450 scientists in measurements and modeling studies to better understand how changes in surface temperatures affect the development of cirrus clouds and the role of those clouds in moderating or amplifying surface warming trends. The goal is to improve modeling of clouds, the largest source of uncertainties in climate forecasts. The field project utilizes aircraft and ground instruments and runs for four to six weeks beginning in July.

<http://www.gsfc.nasa.gov/news-release/releases/2002/02-108.htm>

Wastewater potential source of hydrogen for fuel cells (UniSci 6/4/2002) - Hydrogen and methane production from wastewater treatment could provide a plentiful supply of energy for fuel cells, according to Penn State researchers. Industrial wastewater high in sugars are particularly rich sources of hydrogen. Presently, expensive aerators are used in the treatment of wastewater, but if the hydrogen were captured instead, it could become a source of energy while reducing the cost of wastewater treatment.

<http://unisci.com/stories/20022/0604025.htm>