

MEMORANDUM

TO: Colorado Water Conservation Board Members

FROM: Brad Lundahl, Conservation and Drought Planning

DATE: November 13, 2002

RE: Colorado Drought Update

Topics:

- I. 2002 Drought Impacts
- II. Drought Assistance
- III. Legislation
- IV. Water Availability Task Force
- V. Weather Outlook
- VI. Cooperative Drought Relief Successes
- VII. Drought and Fire Grants and Loans (attachment)
- VIII. U.S. Drought Monitor (attachment)

I. 2002 DROUGHT IMPACTS

- Snowpack on April 1st, 2002, was 52% of average.
- On April 22nd, Governor Owens requested an emergency drought designation from U.S.D.A. Secretary Ann Veneman. Sixty-three Colorado counties received a federal drought disaster designation.
- On April 24th, Colorado's Drought Mitigation and Response Plan was fully activated for the first time ever since its creation in 1981.
- Precipitation for the 2002 water year over the entire state was close to 60% of average -- well below the 70% value that is commonly used to define severe drought. This is likely to be the lowest statewide average in recorded history.
- Persistently warm temperatures characterized 2002 in all months except February, March and September. This contributed to high evaporation rates and low relative humidities -- not uncommon for major widespread long-duration drought events.

- Several communities experienced water supply emergencies requiring special actions. Those include: Rocky Ford, Beulah, Victor, Cripple Creek, and Penrose.
- Many municipalities implemented restrictions on outside water use.
- Nineteen public water systems reached critical or near-critical water level designations from the Colorado Department of Public Health and Environment.
- There has been an estimated \$1.1 billion impact to agriculture, tourism, and recreation from this drought.
- Dry land wheat production was only 45% of the ten-year average.
- Irrigated corn production was 50-85% of average. Dry land corn was almost a total loss.
- Sunflower crop yields down 71%.
- Cattle breeding stock was reduced by 45-50% statewide. Southern Colorado ranchers sold almost 80% of herds. Losses near \$460 million.
- Dairies (500 head size) are losing approximately \$15,000 to \$20,000 per month.
- Outfitters estimate visitation was down 40% with an expected \$200 million impact.
- Fishing license sales were down 93,000 with an \$800,000 impact to the Division of Wildlife.
- Calls were placed early in April and continued throughout the summer. The Farmers Independent 1865 call in District 2 was the most senior call in that particular reach of the South Platte in the last 35 years.
- The plains irrigation reservoirs east of Denver were empty by the end of August 2002.
- According to tree ring studies, 2002 was the worst year since 1703 in the South Platte Basin and the driest along the Colorado River since 1579.
- Well augmentation entities had to continuously acquire additional augmentation water to deal with the extended call period resulting in a reduction of allowable pumping by 25%. Some well pumping was curtailed to prevent a violation of compact delivery requirements.

- A call on the City of Pueblo's 1874 direct flow right was the most senior call ever on that reach.
- Rural communities have been severely impacted by this drought, although totals are not yet known.

II. DROUGHT ASSISTANCE

CWCB and DWR: Agriculture Emergency Drought Fund

In 2002, the Colorado General Assembly authorized the use of \$1 million from the CWCB perpetual base account of the severance tax trust fund for loans and grants to farmers needing emergency well augmentation due to drought conditions. As of September 1, 2002, the CWCB has issued \$262, 000 of the \$1 million fund. The Lower Arkansas Water Management Association received \$94,000, and the Ground Water Appropriators of the South Platte received \$168,000.

DOLA: Emergency Drought and Fire Funding

In response to the Governor's request to redirect the department's financial assistance resources to respond to local wildfire and drought related needs, the Department of Local Affairs (DOLA) extended the Energy and Mineral Impact Assistance Fund application deadline for fire and drought needs from August 1 to September 13 and deferred funding decisions on 32 other requests totaling more than \$4.6 million. After review by the state Impact advisory committee, the Department is now making the following fire and drought related awards totaling \$2,803,500:

DOLA: Drought Related Recipients (\$620,000):

Town of Aguilar, \$20,000 loan for water study.

Town of Sugar City, \$10,000 grant for water study.

Beulah and Pine Drive water districts, \$10,000 grant to study joint solutions to water shortages.

Town of Alma, \$210,000 grant to drill two additional water wells. (The state Health Dept. is tentatively proposing a \$13,500 grant from its PPG funds.

Town of Kremmling, \$300,000 grant to develop an alternate water source.

Red Rock Valley Water District, \$70,000 grant to drill an additional well.

DOLA is anticipating the following requests by the end of the year:

Weld County (for Chambers subdivision), \$300,000 CDBG grant and \$100,000

Impact loan for connection to City of Brighton's water system.

Town of Crestone, \$20,000 to drill a new fire well.

Beulah and Pine Drive water districts, \$200,000 - 400,000 for joint water system improvements.

Town of Sugar City, \$200,000 - 500,000 for alternate water source.

DOLA: Fire Related Recipients (\$2,183,500):

Hartsel FPD, \$85,500 grant for construction of a new fire station.

City of Durango, \$300,000 grant and \$200,000 loan for water treatment improvements necessitated by degradation of water quality as a result of runoff from fire denuded slopes above the city's water supply. (The state Health Dept. was considering a "319" nonpoint source grant to help with the restoration of affected water supply.)

San Juan County, \$50,000 grant for purchase of a fire tanker truck.

Wet Mountain FPD, \$125,000 grant for construction of a fire substation and the purchase of two fire trucks.

Canon City Area FPD, \$120,000 grant for purchase of a new fire truck.

Town of Bayfield, \$470,000 grant and \$233,000 loan for water treatment improvements necessitated by high turbidity resulting from storm runoff in the town's fire damaged water shed. (The state Health Dept. is likely to provide a \$50,000 grant from Supplemental Environmental Program funds (derived from fines for air and water quality violations).

LaPlata County, \$600,000 grant for mudslide mitigation and cleanup resulting from runoff from fire damaged slopes.

III. LEGISLATION

A. Legislation from the July 2002 Special Session

SB 02S-001

SB 001 creates the Agriculture Emergency Drought Response Fund for the purpose of making loans and grants available to agricultural organizations for emergency drought-related water augmentation purposes. The Fund was created using \$1 million from the CWCB perpetual base account of the severance tax trust fund. The fund is administered by the CWCB and the State Engineer in consultation with the Commissioner of Agriculture and the Executive Director of the Department of Natural Resources.

HB 02S-1001

This legislation increased the penalties for a person who intentionally sets a wildfire during times of a drought as declared by the Governor. In addition, HB 1001 clarifies the authority of the State Forester to authorize prescribed burns during times of drought.

HB 02S-1006

HB 1006 modified the legal authority for issuing fines for fire-related violations on public property.

HB 02S-1010

HB 1010 created a temporary state income tax credit deferral for livestock operators affected by drought conditions.

B. Proposed Legislation for the 2003 General Session.

Three bills were recommendations of the General Assembly's Water Resources Review Committee. Those include:

Bill #1 Concerning the Extension of the Implementation Dates for Certain Water Augmentation Requirements.

The proposed legislation would extend the implementation dates for certain more stringent water augmentation requirements that will apply in the Denver basin aquifers and in the San Luis Valley confined aquifer.

Sponsors: Representative Diane Hoppe
Senator Lewis Entz

Bill #2 Water Resources Review Committee

The proposed legislation would delete the repeal date for the water resources review committee's ability to report committee bills exempt from any applicable bill limits. Allows the committee to meet during the regular session of the General Assembly. Specifies that the power to appoint the committee's chair alternates between the House of Representatives and the Senate.

Sponsors: Senator Jack Taylor
Representative Al White

Bill #3 Increased Regulation of Water Well Permits

The proposed legislation would attempt to increase the regulation of water well construction contractors and pump installers by:

- Requiring continuing education of such contractors as a condition of licensure;
- Specifying additional enforcement authority of the state board of examiners for water well construction and pump installation contractors;
- Creating a well inspection program to be paid for through license fees and a \$40 increase in well permit fees.

Sponsors: Senator Lewis Entz
Representative Carl Miller

C. CWCB Bills

Projects Bill

Annual legislation to authorize the expenditure of funds for water projects and feasibility studies for water projects.

D. Potential Legislative Issues

The 2003 regular session of the Colorado General Assembly will begin on January 8, 2003. The following list represents potential legislation issues and does not necessarily mean that any of the proposed items have been drafted or will be introduced.

Financial Bills

Sales Tax for Water Projects
Revenue Bonding
CWCB Funding
State Engineers Budget
Severance Tax Use
Water User Fees

Water Conservation Bills

Multiple Bills Relating to Agriculture and Municipal Water
Landscaping Measures

Stream Flow Bills

Water Transfers (Ag to Urban, Basin of Origin)
Water Sale Mitigation
Emergency Powers for CWCB Instream Flows

Government Organization

CWCB Membership
Consolidation of CWCB/State Engineers Office
Election of Conservancy/Conservation District Boards

Constitutional Amendments

Tax Cuts

Public Trust Doctrine

Miscellaneous Water Bills

Amendments to HB 1414 (Substitute Water Supply)

Forest Management/Improve Water Yield

Water Leasing including Dry Year Leasing

Groundwater – subdistricts

E. Federal Drought Preparedness Legislation

S. 2528, sponsored by Senator Domenicci, is still pending before Congress and is currently in the Senate Environment and Public Works Committee. This legislation establishes a drought fund to be used for future drought planning efforts and authorizes the National Drought Council to coordinate drought efforts and establishes the National Drought Monitoring Network to enhance national drought monitoring and alert.

IV. WATER AVAILABILITY TASK FORCE

The Water Availability Task Force (WATF), commonly referred to as the “Drought Task Force”, met every month during 2002 to monitor and assess the conditions and impacts of this drought. In April 2002, Governor Owens activated the Colorado Drought Mitigation and Response Plan and requested an immediate activation of the Impact Task Forces. In addition, the Governor requested a report by the Impact Task Forces to determine if there was a need for assistance from the General Assembly before the end of the 2002 legislative session in May.

The Water Availability Task Force was instrumental in relaying information from the groups meteorological and water supply experts to the media and general public during the growing drought crisis.

The WATF is continuing to meet and receive recommendations from its Impact Task Force groups. The Wildlife Impact Task Force has been especially active and has implemented several recommendations to assist with fisheries management and game management in relation to extreme drought conditions.

V. WEATHER OUTLOOK

El Nino: Report from the National Oceanic and Atmospheric Agency (NOAA)

The extraordinary Colorado drought of 2002 may have reached its peak in August. Although the outlook for the next year is not overly wet, the rains of September may have broken the vicious cycle of low soil moisture and fire-caused hazy skies that tended to perpetuate our drought through the summer. With a slate thus wiped clear, and a strengthened El Nino in place, we should have a better chance of realizing the El Nino-

related potential of near-normal or even wet months ahead of us. Unfortunately, a near-normal or even slightly wet snow season won't be sufficient to refill our reservoirs. Although a repeat of last year's dry weather is not likely, it would exacerbate our drought conditions so much that we need to consider what such a scenario would entail. Nevertheless, a slight easing of the drought appears most likely for the southern half of the state and Front Range once the snows of this winter (and SPRING!) melt next summer.

VI. COOPERATIVE DROUGHT RELIEF SUCCESS

Black Canyon/Aspinall/Redlands Water and Power

In response to the 2002 drought, significant agreements were reached between the CWCB, U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, the Colorado River Water Conservation District, and the Redland Water and Power Company. Redland agreed to voluntarily limit its total river call to 600 cfs, of their 750 cfs senior water right, from June to October (2002). In return for its reduced flow limit, Redland received an assurance of 600 cfs during the same time period and compensation for any lost power revenues from reduced diversions. The USFWS reduced the water needed to run the Redland Fish Ladder and the Bureau of Reclamation agreed to meet the reduced requests through adjustments in Aspinall Unit operation.

Subsequently during this coming winter, minimum flows below the Gunnison will be reduced to 250cfs in order to help recapture storage in the Aspinall Units.