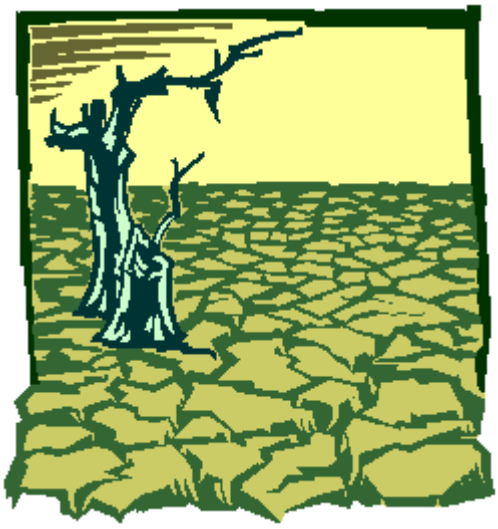
New Mexico Drought Task Force

New Mexico Drought Plan



Update: November 2005

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Introduction

The purpose of this report is to provide information on the status of drought in New Mexico and the progress made by the Governor's Drought Task Force over the past year, outline the goals of the Task Force for the coming year, and provide an assessment of risk that drought presents to our state.

Governor Bill Richardson created the current New Mexico Drought Task Force by Executive Order 2003-019 in the spring of 2003 (Appendix A). The twelve-member Task Force is chaired by the State Engineer and includes Cabinet Secretaries from the Energy, Minerals and Natural Resources Department, Department of Environment, Department of Finance and Administration, Department of Agriculture, Department of Indian Affairs, Department of Tourism, and Economic Development Department; Executive Director of the New Mexico Finance Authority; Directors of the Interstate Stream Commission and the Office of Emergency Management of DPS; and the Director of Policy and Planning from the Office of the Governor (Appendix B).

The history of the Drought Task force goes back to 1996, when Governor Gary Johnson created the New Mexico Drought Task Force by Executive Order. The five-member Task Force was chaired by the Cabinet Secretary of Energy, Minerals and Natural Resources and consisted of three Cabinet Secretaries, the State Engineer, and a representative from the Office of the Governor. The New Mexico Drought Plan, Volumes I and II, were published in 2002 under Governor Johnson's leadership.

The year 2005 has seen a slight easing of drought conditions in New Mexico with above average winter moisture, although the summer of 2005 was the 13th driest in New Mexico in the past 111 years. It was also the 15th warmest, leading to increased evaporation of available moisture. No declaration of drought was signed by the governor for the year 2005.

Risk assessment is one of the chief components of drought management. In planning for drought, assessment is a major tool in the toolbox for drought-related hazards and the associated cost of drought impacts, which partly can be expressed in monetary terms in an economic assessment which assists in decision making. Other types of assessments are also relevant for decisions on pre-emptive measures or mitigation. These assessments are both environmental and social. Given that a management strategy has been prepared, there will be a need to apply various policy tools to assist in implementation of that strategy. There will be a need to address how to effectively catalyze social change, which regulatory instruments to apply, how land use planning can be brought into the picture, and how economic instruments can assist integrated drought management. These tools will help to identify and reduce New Mexico's vulnerabilities to drought.

The New Mexico Drought Task Force created six Work Groups to address specific sectors impacted by drought. The current groups were convened in the Summer of 2003 and have

been working to determine their sector's vulnerabilities to drought, formulate plans and policy proposals for the Drought Task Force to mitigate drought impact, and take action to reduce the impact of drought on their sector. The Work Groups provide a means for representation and participation by a broad spectrum of stakeholders for each sector impacted by drought, with representatives from Federal, State, Tribal, local, advocacy groups and private citizens.

The increase in New Mexico's population over the past several decades has dramatically increased the state's vulnerability to drought. It is therefore critical to both inform and educate New Mexico residents about drought conditions and the threats posed to the environment, to our economy, and to our health. There is much that the general public can do to conserve water and mitigate the local impacts of drought.

This year Governor Richardson formed the Climate Change Action Council (CCAC) through Executive Order (05-033). The CCAC was formed by the Governor in the Climate Change and Greenhouse Gas Executive Order (see attached). The Governor designated the State Engineer and the Secretaries of Game and Fish, Economic Development, Energy and Minerals, General Services, Health, Indian Affairs and Transportation as members of the Council. The EO also established a Climate Change Advisory Group (Advisory Group) who will investigate and report on regional and national initiatives, particularly in association with nearby states, that will help create meaningful policy to address climate change. The Advisory Group will report and make recommendations to the CCAC. The primary purpose of the Council is to review recommendations from the Advisory Group before they go to the Governor. In addition, the Advisory Group will finalize a report to the CCAC with findings and recommendations, including an inventory of existing and planned actions that contribute to greenhouse gas emissions reduction, no later than December 1, 2006.

Many work group members are also involved with the work group established by the State Engineer and chaired by Anne Watkins which will prepare the "analysis of the impact of climate change on the State's water supply and ability to manage its water resources" called for by the Governor's Executive Order. Extended drought is one of the anticipated impacts of climate change, and work group activities will need to be closely coordinated with the Governor's initiative. Researchers believe the massive die-off of piñon during 2002 and 2003 could be a harbinger of the effects of climate change. Tree deaths occurred in areas that were relatively unaffected by a drier drought during the 1950s, but this drought was warmer. Scientists have predicted that mountain snowpack would be reduced in a warming world. Recent research indicates that warming in much of the west during winter and spring has already produced declines in mountain snowpack (-11% averaged over the west) earlier snowmelt runoff and lower summer streamflow. It is with these issues in mind that the Work Groups will direct some of their energies in the coming year to climate change initiatives.

Drought Conditions Update

CURRENT DROUGHT STATUS

The Monitoring Work Group of the Drought Task Force keeps track of drought conditions throughout the year. Their work is invaluable in overseeing the status of drought in New Mexico as well as forecasting future drought conditions. The following update is due largely to their work throughout the year.

Overall, 2005 was a wet in the winter and dry in the summer, with an exceptionally dry June and July. In general, August was wet over the eastern half of New Mexico while precipitation exhibited considerable variability over the west. August moisture helped salvage an otherwise very dry summer to some degree, although, overall precipitation for the summer (June-August) was well below normal for the state. Preliminary numbers suggest the summer of 2005 was the 13th driest in New Mexico in the past 111 years. It was also the 15th warmest, leading to increased evaporation of available moisture.

Current Conditions:

As far as the winter forecast, New Mexico is in an ENSO neutral state. This means confidence in the seasonal forecast is low. It also means other shorter-term oscillations will play a significant role in what happens. The Madden-Julian Oscillation (MJO) will probably be a main player. Winter will likely be relatively tranquil but with a few major storms during those times when the MJO is active. One to two major storms can make the difference between below and above-normal precipitation for a season in New Mexico. Winter is likely to be normal or drier than normal overall and will be definitely drier than last winter. In spite of a few major, cold outbreaks, the temperature average for this winter will be above normal. The good news part of that is that we should have fewer "heating degree days" which should help mitigate the impacts of expensive oil to some degree.

- Abnormally dry conditions to moderate drought continue in the western half of New Mexico.
- Elephant Butte Reservoir in New Mexico remains considerably below average levels.
- The past 30 days were mainly warmer than average across the Southwest region.
- Much of the Southwest received below-average precipitation during the past 30 days. North-central New Mexico and western Arizona were notable exceptions.
- Models indicate increased chances of above-average temperatures in the Southwest through April 2006. Forecasters predict slightly increased chances of drier-than-average conditions across most of the region for the fall and early winter.
- El Niño – ENSO-neutral conditions are expected to continue through spring 2006.

- The Bottom Line – Drought should persist along parts of the Arizona-New Mexico border. Hydrological drought is still a concern for managers of some large surface water supplies in the Southwest.

One of the wetter regions of New Mexico during August was in an area through Mora and Harding Counties. Rosebud (Harding County) measured 9.08 inches of rain, while Ocate totaled 6.25 inches. Another wet region was the Sacramento-Capitan Mountain region. Cloudcroft measured 6.17 inches of rainfall, which was 1.32 inches above normal. Ruidoso measured 5.48 inches, 1.28 inches above normal. Other spots in that region were as much as 2-3 inches above normal, with 7.32 inches at Sierra Blanca Airport and generally 7 to 8 inches in and around Alto. Picacho measured 6.12 inches, nearly two inches above the August normal of 4.21 inches. Still, coupled with the fact the June-July period was one of the driest on record with deficits as much as 4-5 inches, the wet August did not bring the summer precipitation up to normal over the Capitan-Sacramento Mountain region. In the north, Los Alamos was an isolated spot that did well, with 5.76 inches of August rain, over two inches above the normal of 3.58 inches.

Parts of New Mexico experienced a dry August. Some of the notable spots included: Cliff, with 1.01 inches, well below the normal of 2.90 inches, Albuquerque, with 0.49 inches compared to a normal of 1.47 inches, Gila Hot Springs with 0.91 inches, over two inches below the normal of 3.12 inches, and Moriarty, with 0.46 inches compared to a normal of 2.60 inches.

On the positive side, the North American Monsoon still impacted New Mexico during the first couple of week of September. Because of the exceptionally wet period from January through April, calendar year and water year (since October 1, 2004) precipitation is still above normal across New Mexico. However, average precipitation by climate division has been below normal since that time. Over the past three months, the Northern Mountains (division 2), Southwest Mountains (division 4), and Central Highlands (division 6) have all accumulated new deficits averaging between 2 and 3 inches. These measurements are all in the driest 10 percent of three month (June-August) periods in the historical records.

Meanwhile, long-term drought conditions linger in some areas. The worst **long-term** drought conditions remain over portions of the northern mountains, mainly in a strip from near Las Vegas to Santa Fe and Jemez Springs and Los Alamos. Forty-eight month deficits through August 2005 were all between 14 and 15 inches at Las Vegas, Santa Fe and Los Alamos, and 21 inches at Jemez Springs. The 2nd worst areas include the Capitan and northern Sacramento Mountains within Lincoln County, where forty-eight month deficits are generally in the 4 to 8 inch range but are as high as 12 inches around Ruidoso. The 3rd area where long-term drought lingers is the portion of western New Mexico through Grants, Gallup and Zuni. Forty-eight month deficits in this region are generally 5 to 7 inches, and as high as 12 inches at Zuni.

Rangeland/Pasture conditions: As of mid-September, 49 percent of the pasture and range land in New Mexico was considered to be in good or better condition. This is up substantially from early August, showing the impact of the relatively wet August on surface

conditions. Nineteen percent of the land was considered to be in poor or very poor condition, down from 31 percent in early August. According to USDA, topsoil moisture was short or very short in moisture content in over 36 percent of the area, down from 53 percent in early August. Topsoil moisture was considered to be adequate over 60 percent of the area, compared to only 39 percent in early August. Moisture was considered to be surplus over 4 percent of the area.

Fire Danger Impacts: The rains of August and September have eased fire danger from the high to extreme conditions of July. As of mid-September, according to the USFS, most areas of the state exhibited low to moderate fire danger.

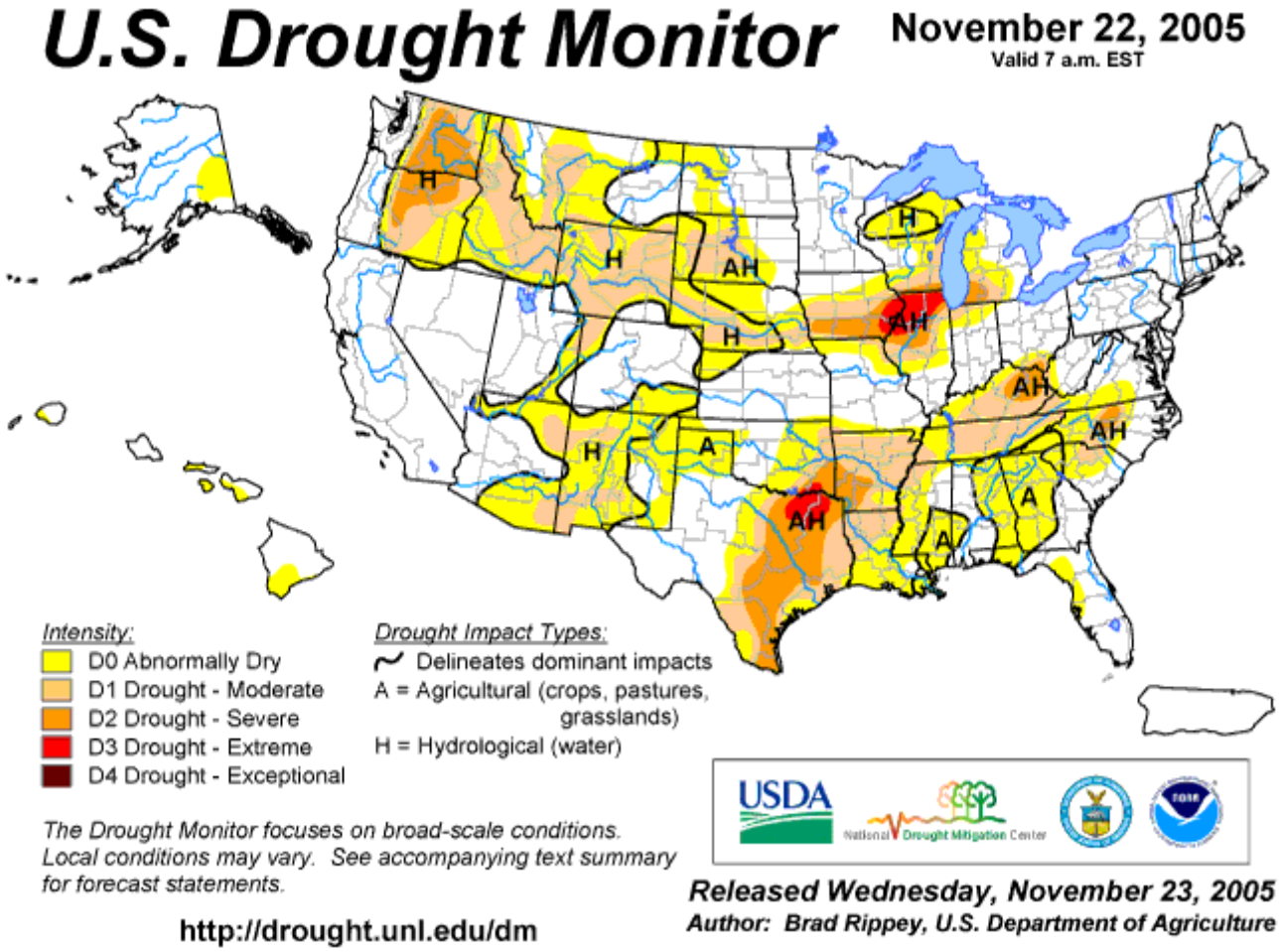
Hydrologic Impacts: New Mexico reservoir storage is substantially better than last year at this time. Some of the systems in the north and east have reached levels above the long-term normal. This would include El Vado, Costilla and Navajo in the north, and Santa Rosa, Sumner and Lake Avalon in the east. In terms of percentage, Lake Sumner has enjoyed the greatest turn-around the past year. It was nearly empty a year ago but is now over 125 percent of normal. Meanwhile, although the Caballo-Elephant Butte storage has increased substantially over the past year, it remains in the 35 to 40 percent of normal range.

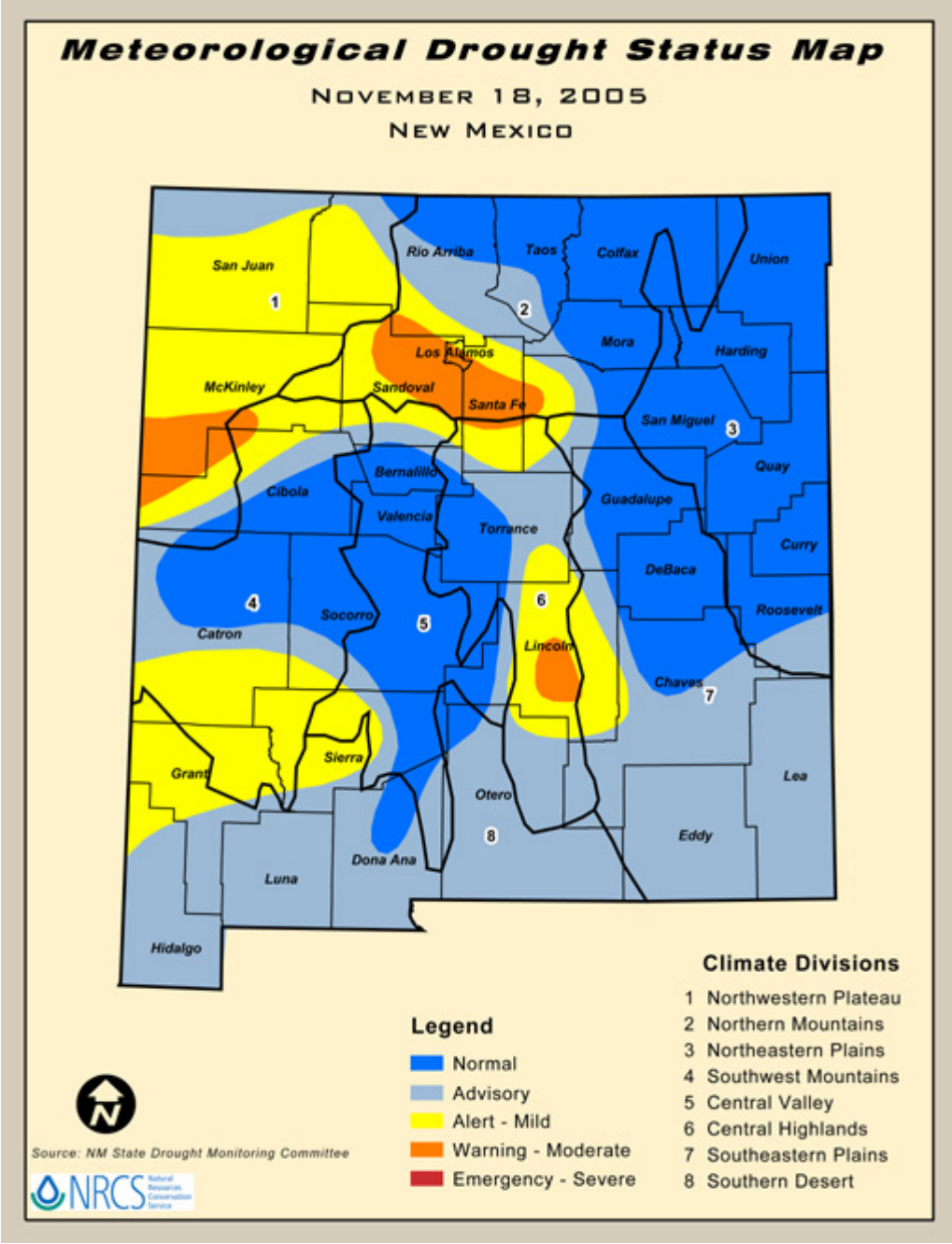
Long-range outlook: ENSO-neutral conditions are expected to continue for the remainder of the year and into 2006. This means confidence in seasonal forecasting is not especially high right now. However, long-range models are suggesting the coming winter is more likely to be on the dry side instead of wet. Limited tools available suggest the coming winter will be significantly drier than the winter of 2004-2005.

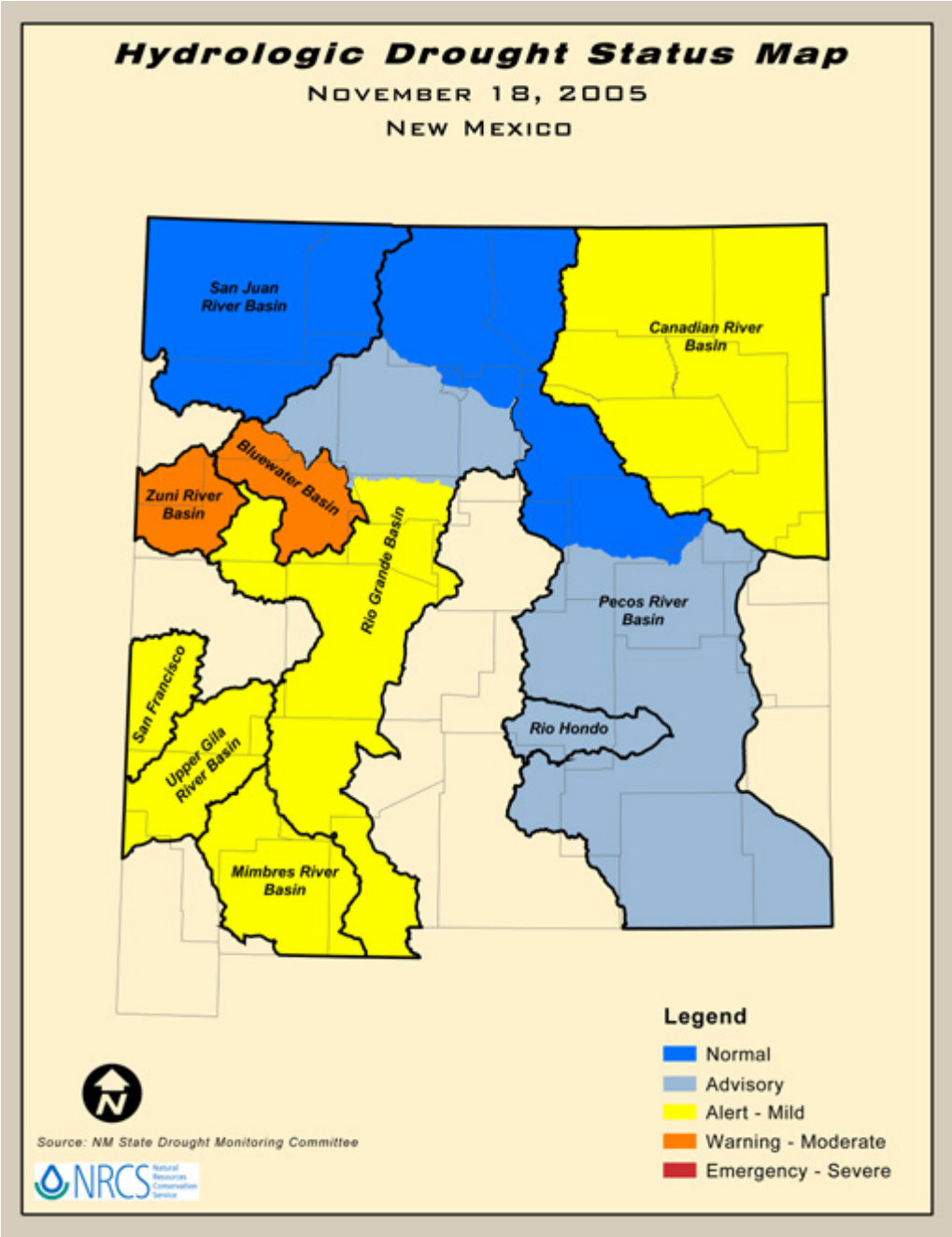
The following table shows the 2005 precipitation anomaly by climate division, water year (Oct 2004-Aug 2005) anomaly, short-term (<= 12 months) and long-term (>12 months) Standardized Precipitation Index (SPI. Percentile is a good measure to determine how rare the precipitation value is. In general, percentiles from 1 to 10 are associated with "emergency" drought conditions in New Mexico. Percentiles from 11 to 20 are consistent with drought "warning" designations, while values from 21-40 are usually indicative of drought "alerts" (21-30), and "advisories" (31-40).

Climate Division	Anomaly Jan-Aug 2005	Anomaly Oct 2004-Aug 2005	Lowest Short Term SPI (month) Anomaly/ Percentile	Lowest Long Term SPI (month) Anomaly/Percentile
1 NWest	+1.9"	+1.5"	- 1.0 (4) -1.1" 25th	-0.7 (72) -5.6"/23rd
2 N Mtns	+1.4"	+2.4"	- 1.5 (3) -2.2" 7th	-1.6 (72) -12.6"/6th
3 NE Plains	+1.9"	+4.5"	- 0.3 (3) -0.8" 39th	0.0 (72) +0.3 /52nd
4 SW Mtns	+1.4"	+3.1"	- 1.5 (3) -2.0" 5th	-0.1(48) -1.1"/45th
5 Cntrl Vly	+2.1"	+3.4"	- 1.5 (3) -1.7" 7th	0.0 (48) +0.4"/53rd
6 Cntrl Highlnds	+0.8"	+2.5"	- 2.1 (3) -3.0" 2nd	-1.0 (72) -9.8"/16th
7 SE Plains	+1.7"	+5.2"	- 0.2 (3) -0.6" 42nd	0.0 (72) +0.2"/51st
8 Srn Desert	+1.9"	+3.3"	- 1.3 (3) -1.7" 10th	-0.4 (72) -2.8"/35th

The current National and State Drought Conditions can be seen in the following three figures:

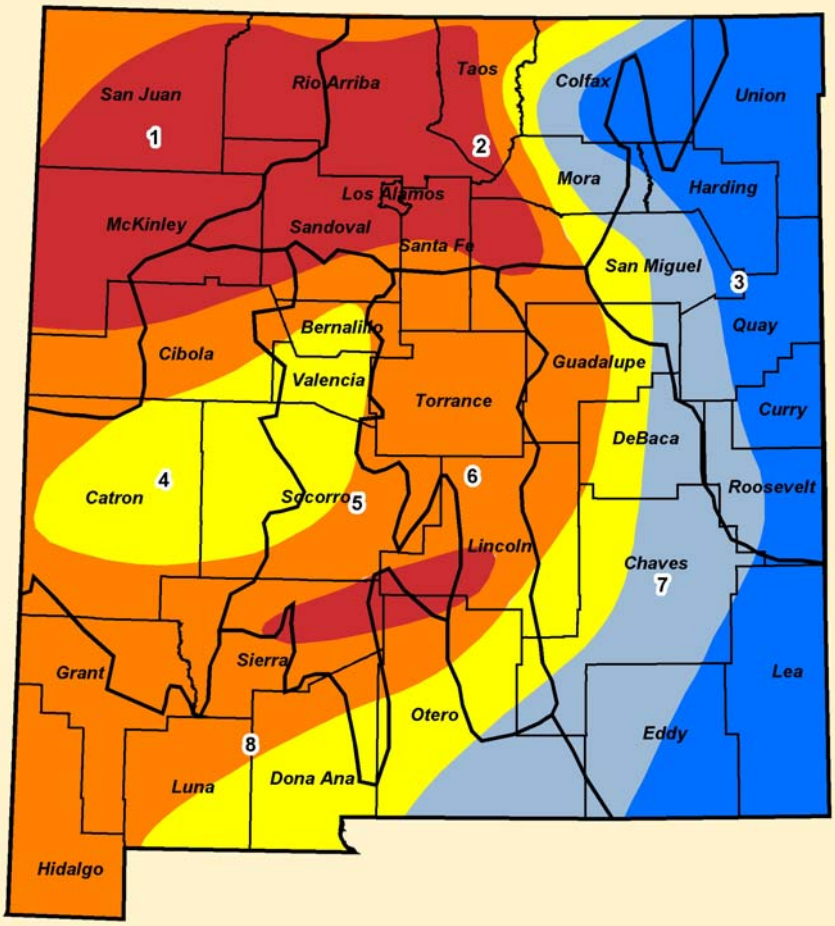



Meteorological Drought Status Map
November 18, 2005
New Mexico
San Juan
Rio Arriba
Taos
Colfax
Union
Los Alamos
Mora
Harding
McKinley
Sandoval
Santa Fe
San Miguel
Quay
Bernalillo
Cibola
Valencia
Torrance
Guadalupe
Curry
DeBaca
Socorro
Roosevelt
Catron
Lincoln
Chaves
Sierra
Grant
Lea
Otero
Eddy
Dona Ana
Luna
Hidalgo
1
2
3
4
5
6
7
8
Legend
Normal
Advisory
Alert - Mild
Warning - Moderate
Emergency - Severe
Climate Divisions
1 Northwestern Plateau
2 Northern Mountains
3 Northeastern Plains
4 Southwest Mountains
5 Central Valley
6 Central Highlands
7 Southeastern Plains
8 Southern Desert
Source: NM State Drought Monitoring Committee
NRCS



For comparison, the map below depicts the meteorological status of the drought for 2004. By comparing this map with the previous map, the increased rainfall becomes apparent, especially in the eastern part of the state.

Meteorological Drought Status Map
October 22, 2004
New Mexico



Legend

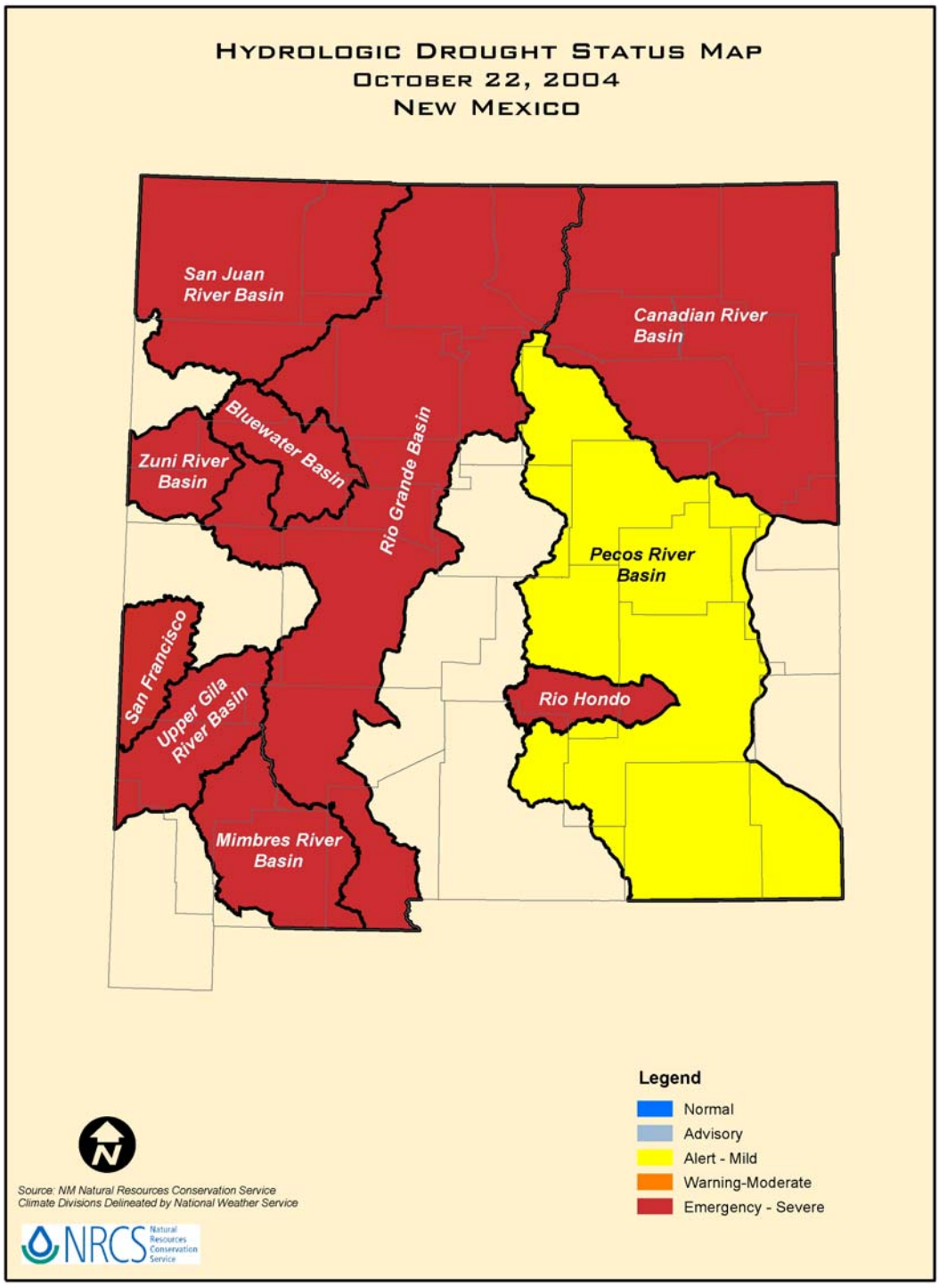
- Normal
- Advisory
- Alert - Mild
- Warning-Moderate
- Emergency - Severe

Climate Divisions

1 Northwestern Plateau
2 Northern Mountains
3 Northeastern Plains
4 Southwest Mountains
5 Central Valley
6 Central Highlands
7 Southeastern Plains
8 Southern Desert

Source: NM Natural Resources Conservation Service
Climate Divisions Delineated by National Weather Service

NRCS Natural Resources Conservation Service


Hydrologic Drought Status Map
October 22, 2004
New Mexico
San Juan River Basin
Canadian River Basin
Bluewater Basin
Zuni River Basin
Rio Grande Basin
Pecos River Basin
San Francisco
Upper Gila River Basin
Rio Hondo
Mimbres River Basin
Legend
Normal
Advisory
Alert - Mild
Warning-Moderate
Emergency - Severe
Source: NM Natural Resources Conservation Service
Climate Divisions Delineated by National Weather Service
NRCS Natural Resources Conservation Service

New Mexico Drought Trigger Indicator Guidelines

The key to understanding the method behind these maps lies in what are called “triggers”. Drought monitoring and the establishment of triggers for response is a critical component requiring a comprehensive, integrated program designed to provide reliable, accessible and timely information to decision makers. The uncertainty surrounding the definition and occurrence of drought, as well as its magnitude, duration and severity often make it difficult to make policy and management decisions. Sound science and good data are key to successful drought management strategies. Drought is a very complicated phenomenon, and assessment requires the integrated input from many sources.

The Monitoring Work Group produces two assessments: (1) the meteorological/agricultural “state of the land,” and (2) the state of the hydrology. The meteorological/agricultural assessment is based on short and long-term drought indices, employing the Palmer Drought Severity Index (PDSI), the Standardized Precipitation Index (SPI), and any other monitoring tools the group deems appropriate to the process. Using a process still under development, the state of the hydrology graphic is produced by combining the assessments of reservoir storage and stream flow, using indicators such as the Surface Water Supply Index (SWSI).

The following indicate the levels or triggers used to determine the state of the drought:

Normal

- Short-term Indicators: PDSI is greater than -0.9. Six month SPI is positive.
- Long-term Indicators: Twelve to 60 month SPI shows no values less than -0.25.

Advisory (approaching or experiencing incipient drought, or experiencing ameliorated drought)

- Short-term Indicators: PDSI is between -1.0 and -1.9 for 1 month or a four-week running average but period of less than -1.0 does not exceed 2 months. Six month SPI less than -0.25.
- Long-term Indicators: Twelve to 60-month SPI lowest value is between -0.25 and -0.50.

Alert (mild drought)

- Short-term Indicators: PDSI is between -1.0 and -1.9 for greater than 2 months or between -2.0 and -2.9 for 1 month. Six month SPI less than -0.50.
- Long-term Indicators: Twelve to 60-month SPI shows lowest value between -0.50 and -0.80.

Warning (moderate drought)

- Short-term Indicators: PDSI is between -1.0 and -1.9 for 9 months or more, -2.0 to -2.9 for at least 2 months, or -3.0 or less for at least 1 month. Six month SPI less than -1.25.
- Long-term Indicators: Twelve to 60-month SPI shows lowest value between -0.80 and -1.25.

Emergency (severe to extreme drought)

- Short-term Indicators: PDSI is between -2.0 to -2.9 for 9 months or more, -3.0 to -3.9 for at least 2 months, or -4.0 or less for at least 1 month. Six month SPI less than -1.70.
- Long-term Indicators: Twelve to 60-month SPI shows lowest value less than -1.25.

The following are indicators used in drought assessments:

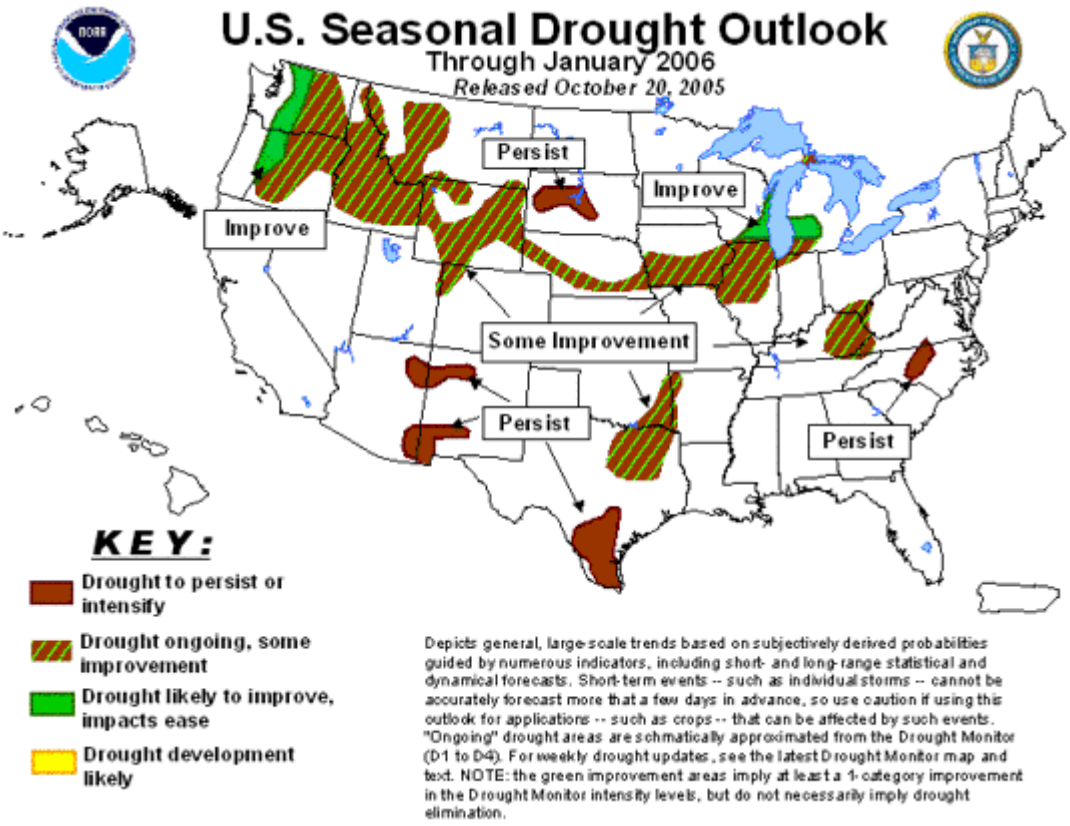
Palmer Drought Severity Index (PDSI) - NWS uses weekly values computed by the Climate Prediction Center (CPC) and calculates monthly averages for each climate division.

Standard Precipitation Index (SPI) - Calculations from the Western Region Climate Center are used based on data since 1895. Thresholds employed for the various long-term status assessments:

- Emergency (-1.25 or less) occurs less than 10 percent of the time
- Warning (-0.80 to -1.24) represents the driest 10-19 percent of the time period.
- Alert (-0.50 to -0.79) represents the driest 20-29 percent of the time period.
- Advisory (-0.25 to -0.49) represents the driest 30 to 40 percent of the time period.

Thresholds employed for the various short-term assessments:

- Emergency (-1.70 or less) occurs less than 5 percent of the six-month periods.
- Warning (-1.25) represents the driest 10 percent of the six-month periods.
- Alert (-0.80) represents the driest 20 percent of the six-month periods.
- Advisory (-0.50) represents the driest 30 percent of six-month periods.



The latest seasonal assessments show that in the Southwest, despite some heavy rains in mid-October, drought should persist, as the latest official seasonal outlook shows the odds tilting toward below-normal rainfall and above-normal temperatures.

Structure of Drought Planning

DROUGHT TASK FORCE

The New Mexico Drought Task Force (DTF) oversees the implementation of drought-preparedness activities in the State of New Mexico. This Task Force acts as a liaison between the Monitoring and Impact Assessment Work Groups (described below) and the Office of the Governor. The Task Force also plays a major role in intergovernmental drought preparedness and response coordination and media information releases.

In addition, this year the Drought Task Force made recommendations to the Governor in the form of a Drought Preparedness and Relief Package (See Appendix D). The recommendations in this package came from each of the 6 work groups and include requests to fund monitoring devices for snow, stream and groundwater counts, funding the annual Drought Summit, issuing an Executive Order to create the Water Infrastructure Technical Team, and several other items that will be discussed under the individual work group headings.

DROUGHT TASK FORCE WORK GROUPS

Currently, the Drought Task Force has five Work Groups that meet regularly to evaluate sector-specific drought vulnerabilities and recommend mitigation activities. A work group from 2004, the Water Development Work Group, has been integrated with the Governor's Water Infrastructure Investment Team, which continues the work on a larger scale. Communication between the current five groups is crucial, as drought impacts are complicated and interrelated and a single mitigation activity will often require the expertise of several groups. The Work Groups and their committees include individuals from many state, federal, and local governments; Indian tribes, pueblos and nations; and private, non-profit organizations. The current five groups and their missions are as follows (See Appendix C for Work Group Members):

Monitoring Work Group (MWG)

The Monitoring Work Group includes water resource and climate professionals from all levels of government. The group is responsible for monitoring available climatological data, soil moisture readings, reservoir storage levels, and other pertinent information necessary to analyze the current status of drought conditions in the State of New Mexico. The group also examines and reports on long-term forecasts to assist the DTF in preparedness and response actions. As necessary, the MWG issues "notices" based on various stages of drought that trigger actions by the DTF.

Drinking Water Work Group (DWWG)

The Drinking Water Work Group is comprised of professionals knowledgeable in fields such as water resources and planning, conservation, water systems construction programs, and water financing. The group has a broad spectrum of responsibilities for mitigation and response, working to prevent community water systems from reaching emergency status through improved planning (including conservation and drought contingency plans) and through multi-system collaboration. The group also identifies methods for domestic, commercial, and industrial sectors to reduce water use, through the use of techniques such as market-based incentives, changes in land-use regulations, and increased education and technical assistance, and makes recommendations to the DTF for policy that may assist with water conservation in those sectors.

Agriculture Work Group (AWG)

The Agriculture Work Group includes representatives from livestock and farming associations, land management offices, agriculture water management agencies, and fish and game programs. The group focuses their mitigation and response efforts on the impacts of drought to the agricultural sector. The length and degree of intensity of drought can produce profound impacts on the state's agricultural industries. Farmers and ranchers, historically, have been the communities most visibly affected by drought, and numerous federal assistance programs are available for the agricultural sector. Timely and accurate assessment of agricultural conditions allows effective response mechanisms to be activated. Therefore, the Agriculture Work Group is particularly interested in soil moisture and precipitation forecast data provided by the Monitoring Work Group.

Wildlife and Wildfire Work Group (WWWG)

The Wildlife and Wildfire Work Group focuses on the interrelated impacts of drought on local wildlife and forests. The group includes professionals from the forestry, emergency management, game and fish, water use, and land management fields. Drought greatly increases wildland fire danger and the probability of large forest fires that can have catastrophic effects on watersheds and threaten human communities as well as flora and fauna. Increased fire restrictions can negatively impact rural economies. Drought reduces forest health and increases susceptibility to outbreaks of insects and disease. In addition, wildlife often suffers from lack of forage, increasing competition with livestock on rangelands. Fish and riparian areas also suffer during droughts. Low stream flows can increase threats to endangered and threatened fish species. The Wildlife and Wildfire Work Group focuses its efforts on all of these drought areas, assessing impacts and making recommendations for mitigation. Because of the interrelated aspects of these issues with the agricultural communities, this group closely coordinates activities with the Agriculture Work Group.

Recreation, Economic Development, and Tourism Work Group (REDTWG)

The Recreation, Economic Development, and Tourism Work Group is in the process of being reconstituted as two groups – Tourism and Recreation and Economic Development - and will seek with new members from the tourism, and economic development sector as well as parks agencies and organizations. This group will consider opportunities to reduce the socio-economic impacts of drought across the state. The group assesses the impacts of drought, recommends new initiatives, and will assist with preparedness for and mitigation of drought impacts on recreation, tourism, and the New Mexico economy. The tourism industry represents a significant sector of the overall state economy, particularly the skiing and water-based recreational opportunities available in the state. Tourism and the livelihood it brings to many New Mexicans can be negatively impacted by drought. The state's economy, in general, can be dramatically impacted by drought, making the work of this group very important.

Water Development Work Group (WDWG)

This group has dissolved and the work incorporated into the activities of the Governor's Water Infrastructure Investment Team. This team continues the work of the WDWG in identifying and developing new sources of water.

Drought Task Force Work Group Activities and Priorities

In addition to a number of activities that all Work Groups will continue to pursue, each group has identified new initiatives for 2005. Most of these will require considerable research and development of policy, legislation, and funding recommendations that can be discussed by the DTF. The following section includes updates, recommendations and priorities for next year from each active group. A summary of the Drought Preparedness and Relief Package proposal can be seen in Appendix A of this report (Page 28).

Monitoring Work Group

2005 Priorities

1. Continue to work with the Western Governors' Association toward federal enactment of the National Integrated Drought Information System (NIDIS).

2. Continue to work with the Western Region Climate Center to refine the statistical tools necessary to enhance drought monitoring capabilities in New Mexico.

3. Continue to coordinate with the Arizona drought monitoring committee to provide more consistent monitoring between the states of New Mexico and Arizona.

4. Complete a comprehensive drought monitoring plan for the state and seek funding for additional monitoring equipment and better statistical tools to aid in gathering information that will allow more comprehensive monitoring of drought.

2005 Activities and Accomplishments

The Monitoring Work Group has continued to take the lead role in providing information on the drought in reporting the current situation and forecasting future conditions. They worked toward their priorities from last year through the following efforts:

- Proposal is in place to develop statewide network of monitoring equipment that would ensure accurate data for tracking and forecasting a statewide drought disaster. This system would be similar to the Mesonet system in Oklahoma.
- Continues to support the efforts of the Western Governors' Association to develop the National Integrated Drought Information System (WGA-NIDIS) proposal to congress.
- Coordinated with the Arizona drought monitoring committee to provide more consistent monitoring between the states of New Mexico and Arizona. The

Drought Programs Manager for Arizona participates in the meetings of the Monitoring Work Group via telephone.

- Worked with the Western Region Climate Center to acquire data files to improve monitoring capabilities.
- Participated in a workshop on drought-related policy related issues with the NASA Earth Science Data group in Washington, D.C. Gave input on the states perspective on how NASA can help states deal with drought and drought data management.

2006 Priorities

1. Continue to work with the Western Governors' Association toward federal enactment of the National Integrated Drought Information System (NIDIS).
2. Identify impact of different levels of drought on the state and build a list of impacts on a spatial scale.
3. Create a survey to discover who is using the drought maps and monthly reports and what are they using it for. Publish results.
4. Continue to seek funding for additional monitoring equipment and better statistical tools to aid in gathering information that will allow better monitoring of drought.
5. Devise a list of drought triggers that will help quantify when a drought is in effect and when a state of drought should be declared.
6. Continue to coordinate with the Arizona drought monitoring committee to provide more consistent monitoring between the states of New Mexico and Arizona.
7. Assist with the development of the report on the impact of climate change on the State's water supply.

Drinking Water Work Group

2005 Priorities

1. Develop a state policy to require hydrological and fiscal sustainability and Safe Drinking Water Act compliance for all water projects getting state funding. This would include such requirements as regional collaboration among geographically proximate water systems, strong drought management and conservation plans, interjurisdictional

cooperation, realistic rates structures, and aggressive leak detection. Draft policies, regulations and statutory changes as may be required to implement the policy.

2. Analyze existing state statutes that call for water planning, conservation plans, and drought plans and write the Navigating the Waters handbook to help water systems with planning.

3. Make recommendations to combine into one statute the requirements for public water system planning dealing with OSE plans and conservation issues.

4. Investigate assured water supply and associated subdivisions and zoning proposals, including a provision requiring demonstrated availability of wet water for an appropriate time period, such as 100 years. After that is done, analyze how subdivision and zoning ordinances could assure adequate wet water, encourage water efficiency and discourage exacerbation of drought effects by new developments.

5. Develop a plan to increase conservation by water users including commercial building managers, the building industry, homeowners and public buildings (schools, state offices {priority}, etc.), including educational strategies and funding needs.

6. Recommend and prepare model code/ordinance for cities and counties that will move toward xeric landscaping.

7. Prepare package for Source Water Protection requirement including statutes, regions and water systems sizes.

2005 Activities and Accomplishments

The Drinking Water Work Group has been very active in pursuing their priorities from 2005. The following recommendations were made to the Governor's Drought task Force and were recommended for consideration by the Governor this year:

-A **major accomplishment** of the DWWG was team was the signing by the Governor of Executive Order (EO 2005-031) that established the Water Infrastructure Investment Team (WIIT) with the Technical Team (TT) to work on the development of a long-range plan for secure and sustainable water and wastewater infrastructure for the future of New Mexico.

-Conducted a review of existing water and wastewater systems statutes to identify needs and gaps; developed a complete list of all funding sources for water and wastewater systems. Presented both to Interim Legislative committees.

-A draft recommendation was prepared and accepted by the DTF that adds to the subdivision statutes to encourage assured water supply.

-A draft recommendation was prepared and accepted by the DTF that develops regulation changes and funding issues focusing on 5 groups: ICI Audit, Bldg. Code, Incentives, Education and Landscaping with the following goals: State statute, state facilities to be up to speed, a 10-year plan, what it will cost, anything from water harvesting and landscaping to low-flow toilets – all to be included in the plan. Bringing state owned properties into compliance is priority.

- A draft recommendation was prepared and accepted by the DTF that requests funding for a statewide model landscape ordinance that identifies best practices and proposes any needed changes to state statutes. This proposal would identify funds for a consultant to develop model ordinances and codes for counties and for different size cities, possibly by developing these for a county or municipality interested in implementation and then using those as models for other and; develop lists of "plant palettes" for all of the different climate zones throughout the state, which local governments could use in their ordinances.

2006 Priorities

1. Assist the Office of the State Engineer with development of the report on impact on water resources called for by the climate change executive order.

2. Continue to support WIIT through participation on the Technical Team.

3. Analyze existing state statutes that call for water planning, conservation plans, and drought plans. Complete a "Navigating the Waters" handbook to help water systems comply with these statutes.

43. Pursue securing funding for research on how other states organize water and wastewater systems and create a public involvement process to solicit input from existing systems on needs and issues. Draft proposals for consideration by the '07 legislature that could include revisions to existing statutes as well as creation of new enabling statutes for regional authorities.

5. Continue to pursue assured water supply and associated subdivisions and zoning proposals.

6. Source Water Protection - Assist and encourage public water systems in adopting protection plans that protect all drinking water sources. – Define areas to protect from contaminants – How do we get people to want to develop and adopt a plan?

Agriculture Work Group

2005 Priorities

1. Sponsor an Agricultural Water Use Workshop in 2006 to identify opportunities for agricultural water conservation.

2. Investigate opportunities for agricultural conservation initiatives and make recommendations to provide incentives and remove obstacles to agricultural conservation projects. This will include a review of tax and other incentives.
3. Continue to support efforts to improve watersheds and restore riparian areas with particular emphasis on leveraging additional federal funds.
4. Work with the USDA Natural Resource Conservation Service's National Water and Climate Center in Portland, OR, to place more Soil Climate Analysis Network (SCAN) sites in New Mexico.
5. Working with the Monitoring Work Group, develop a plan for a weather network in New Mexico similar to the networks in Oklahoma and Montana.
6. Working with the Monitoring Work Group, continue to work with the core group of the Western Governor's Association on the National Integrated Drought Information System (NIDIS).
7. Support or seek funding for a pilot survey with the USDA National Agricultural Statistics to allow for the gathering of drought information in New Mexico.
8. NMDA and USDA-NRCS will convene a group to look at possible changes and ways for N.M. to be involved in the 2007 Farm Bill legislation.

2005 Activities and Accomplishments

The Agriculture Work Group has continued to work on mitigation and response efforts on the impacts of drought to the agricultural sector. The Agriculture Work Group is particularly interested in soil moisture and precipitation forecast data. They worked on their priorities as follows:

-Worked to develop a plan for a weather network in New Mexico similar to the networks in Oklahoma and Montana. Proposal is in place to develop statewide network of monitoring equipment that would ensure accurate data for tracking and forecasting a statewide drought disaster.

-Most members of this WG were actively involved in the development of the Forest and Watershed Health Plan and the Non-Native Phreatophyte/Watershed Management Plan and continue to be involved in implementation activates for both of those plans including the recent New Mexico First Watershed town hall.

2006 Priorities

1. Assist the Office of the State Engineer as well as the Environment Department with development of the report on impact on agriculture and water resources called for by the climate change executive order. Extended periods of drought are one of the

anticipated impacts of climate change, so agricultural interests will need to be better prepared.

2. Sponsor an Agricultural Water Use Workshop to identify opportunities for agricultural water conservation.

3. Work with the USDA Natural Resource Conservations service's National water and Climate Center in Portland, OR, to place more Soil Climate Analysis Network (SCAN) sites in New Mexico

4. Working with the Monitoring Work Group, continue to develop a plan and request funding for a weather network in New Mexico similar to the networks in Oklahoma and Montana.

5. Support or seek funding for a pilot survey with the USDA National Agricultural Statistics to allow for the gathering of drought impact information in New Mexico.

6. Conduct a survey to determine how Ag community gets climate/weather info and what would be the top three things needed to improve the process.

7. Work with the Monitoring Work Group to devise a list of drought triggers that will help quantify when a drought is in effect and when a state of drought should be declared

Wildlife and Wildfire Work Group

2005 Priorities

1. Coordinate with and support the Forest and Watershed Health Initiative to develop a statewide interagency forest and watershed health strategy. The Agricultural Work Group and the Wildlife and Wildfire Work Groups will both work together to support this initiative.

2. Identify and address rehabilitation issues on state and private lands to assure appropriate response after a natural disaster like fire or insect outbreak.

3. Assist with development of a community partnership to increase fire prevention and restoration in conjunction with the New Mexico Fire Planning Task Force and the Southwest Coordination Group. Promote defensible community space ordinances. Coordinate interagency fire management actions to assure the safety of the public and the firefighters and minimize loss of property while realizing fire's natural role in the ecosystem.

4. Complete data gaps in the SPECIES THAT MAY BE IMPACTED BY DROUGHT OR WILDFIRE, finalize the document, and provide this information to the citizens of New Mexico through the Drought Task force web site.

5. Promote and communicate information regarding grant programs that could serve to mitigate and protect against drought/wildfire impacts. Identify programs that benefit migrating/wintering waterfowl, augment river flows to protect species at risk, restore/protects riparian areas (i.e. removal of exotic species, rehabilitation), and restore/protect upland forest health (i.e. thinning, prescribed fire).

2005 Activities and Accomplishments

The Wildlife and Wildfire Work Group has worked on these priorities over the past year with the following results:

- Produced list of SPECIES THAT MAY BE IMPACTED BY DROUGHT OR WILDFIRE. This list is ready for distribution/publication/further work.

  Supported development of Forest and Watershed Health Plan and Non-Native Phreatophyte/Watershed Management Plan.

2006 Priorities

1. Assist the Office of the State Engineer with development of the report on impact on water resources called for by the climate change executive order. Extended periods of drought are one of the anticipated impacts of climate change, so wildlife and wildfire interests will need to be prepared on this issue.

2. Coordinate with and support the Forest and Watershed Health Initiative to develop a statewide interagency forest and watershed health strategy. The Agricultural Work Group and the Wildlife and Wildfire Work Groups will work together to coordinate activities to support this initiative.

3. Monitor wildfire season – report on status to Drought Task Force.

4. Support the New Mexico Fire Plan, community defensible space ordinances, and Community Wildfire Protection Plans (CWPP's). Coordinate with the New Mexico Fire Planning Task Force in the Southwest Coordinating Group.

5. Promote and communicate information regarding grant programs that could serve to mitigate and protect against drought/wildfire impacts. Identify programs that benefit migrating/wintering waterfowl, augment river flows to protect species at risk,

restore/protects riparian areas (i.e. removal of exotic species, rehabilitation), and restore/protect upland forest health (i.e. thinning, prescribed fire).

Recreation, Economic Development, and Tourism Work Group

2005 Priorities

1. Assess and publish the impact of drought on the recreation, economic development, and tourism sectors, including a Department of Tourism regression study to help determine the effects of drought on travel decisions to the state.
2. Identify strategies to reduce the socio-economic impacts of drought.
3. Provide outreach to the tourism and recreation communities to assist with diversification and preparedness.
4. Develop a communications plan to reach key market areas impacted by negative media coverage of New Mexico drought and wildfires.
5. Promote water conservation techniques within the industry, including xeric landscaping, technical assistance with gray water use, tax credits for low flow water fixtures and appliances, and water re-use for snowmaking.

2005 Activities

The Recreation, Economic Development and Tourism Work Group was inactive during 2005 and is regrouping for 2006. The group has been divided into two new work groups: The Economic Development Work Group and the Tourism and Recreation Work Group.

Water Development Work Group

2005 Priorities

This group investigated different alternatives to developing new sources of water, which will be important to the continued viability of the state. Particularly in times of drought, alternatives to surface water are critical, as are new sources of groundwater to offset or avoid excessive depletions. Brackish water reserves in the state, including “produced water”, need to be investigated for opportunities for desalination to enhance potable water supplies or make water available for other purposes.

The group also investigated wastewater treatment as an option for extending the life of existing water supplies. Included in this was consideration of best locations for treatment

facilities to maximize water availability for area usage, as well as opportunities to use existing infrastructure, such as abandoned oil and gas pipelines, for transporting water to end users. There is tremendous opportunity, with the national laboratories and research institutions in the state, to attract federal and other research and development money for pilot projects and new facilities using innovative techniques for water development.

2005 Activities and Accomplishments

This group accomplished the task of outlining opportunities for development of "new supply" options. The Group recommended to the Administration that a "water development" initiative should have a high priority in infrastructure investment plans.

In April 2005, the Governor established the Water Infrastructure Investment Team (WITT), previously mentioned in the DWWG section. Part of its charge is the development of a long-range plan for secure and sustainable water and wastewater infrastructure for the future of New Mexico, including development of new water sources. The Water Development Work Group's activities will be incorporated into those of WIIT.

Appendix A: New Mexico Drought Task Force Drought Preparedness and Relief Package

The Drought Task Force made the following recommendations to the Administration for a DROUGHT PREPAREDNESS AND RELIEF PACKAGE for executive action or for funding by the 2006 Legislature.

WORK GROUP	RECOMMENDATION	FUNDING
DTF	Fund annual Drought Summit	$20,000 (to match funding from other agencies)
Drinking Water	LANDSCAPING: Appropriate $75,000 to fund the contract for a consultant to write a low-water use model landscape ordinance. The ordinance would be available on-line for cities and counties to adopt in their jurisdiction. The model would also provide distinct guidance for counties and smaller cities, as well as plant palettes for climatic regions of the state.	$75,000
Drinking Water	WATER SYSTEM FUNDING POLICY: That support for WIIT and its Technical Team (TT) be continued, and that recommendations of those groups be used to guide development of new state policies and statutory changes. In addition, that appropriate resources be provided to the TT and for the technical assistance that it recommends.	Being developed by Technical Team and Secretary of Department of Finance and Administration
Drinking Water	ZONING: That the following language be added to the New Mexico Zoning Statute (3-21-1 NMSA 1978) that would highlight New Mexico's need to preserve and protect water	

	resources through conservation and smarter more efficient use of water, as well as the protection of water quality, by adding the following new paragraph: *F. For the purpose of preserving and protecting water resources and to provide an assured water supply for the community, the county or municipal zoning authority may require:* *(1) site development standards to conserve water and minimize water loss;* *(2) water harvesting and storage;* *(3) low water use landscaping and plant material requirements;* *(4) water use limitations;* *(5) recycling and reuse of water; or* *(6) water quality protections.*	
Drinking Water	ASSURED WATER SUPPLY: That $100,000 for contractual services be appropriated to the OSE to enhance water supply, water use, and anticipated water demand information to provide local and state decision makers with a useful tool for determining that all development has an assured water supply for security of human drinking and sanitation water, and for environmental and economic development needs.	$100,000
Drinking Water	STATUTE REVIEW – WATER/WASTE WATER ORGANIZATION: That $750,000 in contractual services be appropriated to develop new water and wastewater system organizational and planning statutes.	$750,000
Drinking Water	SOURCE WATER PROTECTION: The Environment Department is developing a Source Water Protection strategy that needs the support of the DTF. [Attachment C.] In addition, the Proposed language in recommendation #2 above to The NM Zoning Act will provide counties with the authority to provide water quantity and quality protection at their discretion. These statute amendments will result in public water systems being able to address water quantity and quality issues through zoning ordinances and source water	

	protection activities.	
Drinking Water	WATER USE: That the OSE Conservation Program prioritize the following conservation initiatives: -Plumbing fixture retrofit on resale – No funding necessary but statutory change needs to be developed -Code amendments regarding plumbing fixtures – No funding necessary but code changes should be developed in conjunction with other state agencies -Develop "Water Conservation Residential Best Management Practices" – No funding necessary, but ultimately should be incorporated into building codes and other regulations -A "Facility Manager Education Program" should be developed for use by state agency building managers and others, and that funding of $100K be requested in the next session to implement it -That a plan for an extensive statewide Marketing and Education Program be developed and that funding of up to $1 million be requested in the next session to implement it.	$1,100,000
Drinking Water	WATER PLANNING – OSE: That the "Navigating the Waters" handbook be completed as soon as possible for use in local water system planning.	
Monitoring	Automate 10 manual SNOTEL sites for consistent measuring PROPOSED: Upgrade the 23 manual sites to be fully automated (as shown in the priority lists attached), which will allow daily measurements of precipitation, temperature, snow depth and snow water equivalent. $20,000 per site x 23 sites	$460,000

Monitoring	Deployment of automated equipment in data sparse regions (as shown in the priority lists attached) of the state to allow better resolution and more accurate assessment of drought conditions. This is especially true in the regions of the state with the more complex terrain, as precipitation variability can be especially extreme in these regions. $3500 per site	$35,000 for first 10 priority sites
Monitoring	Addition of real-time data collection equipment to existing platform around the state (as shown in the priority lists attached *) for improved monitoring capability. Upgraded Sites: $3,515.27 per site, which includes equipment and installation, with $1,144 required for every ten sites to provide costs for spare equipment.	$36,150
Monitoring	In addition to adding the stations to the various climate networks, data need to be entered into the New Mexico Climate network located at the New Mexico Climate Center so that the tools developed by the New Mexico Climate center can be applied to the new stations. This requires some additional programming and the cost is a 0.5 programmer for one year.	$23,000
Agriculture And Wildlife/Wildfire	Fund landscape-scale watershed remediation projects based on the FOREST AND WATERSHED HEALTH PLAN and NON-NATIVE PHREATOPHYTE/WATERWSHED MANAGEMENT PLAN	$? – Being developed by NMDA and EMNRD.
Agriculture And Wildlife/Wildfire	Fund implementation of FOREST AND WATERSHED HEALTH PLAN and NON-NATIVE PHREATOPHYTE/WATERWSHED MANAGEMENT PLAN and watershed remediation projects based on these plans.	$? – Being developed by NMDA and EMNRD.
TOTAL		**$2,600,000.00**

* Recommendations for Monitoring Equipment Funding

The Monitoring Work Group has ascertained that many new monitoring stations are needed to complete a network of reliable reporting. Each county was analyzed as to the best possible location for a new or supplemental monitoring station. Many more stations are needed, but the priorities are broken down into three levels, with the top priority being given to those areas that have no monitoring at the present time. The other priorities are for upgrades to existing stations to provide real-time monitoring. It should be noted that USGS will maintain the additional equipment under this proposal. The Governor's Drought Task Force requests funding for the following counties as the first priority:

Curry – Melrose
Roosevelt – Portales (Branch Campus)
Hidalgo – Antelope Wells
Luna – Columbus
Torrence – Estancia
Colfax – Eagle Nest
Union – Grenville
Harding – Roy
Lea – Hobbs
Santa Fe - Edgewood

The cost to install new stations is $3500 for a total cost of $36,150 for all Priority 1 stations. (This include $1,144 required to provide costs for spare equipment)

The priority 2 and 3 stations are as follows:

Priority 2
Quay – Ragland
San Juan – Shiprock
Grant - Gila at Redrock
DeBaca – Lake Sumner near Ft. Sumner
Catron – San Francisco
Otero – Tularosa Creek near Bent
Guadalupe – Pecos River above Santa Rosa Lake
McKinley – Rio Nutria near Rama
Cibola – Bluewater
Chaves – Rio Hondo below Two Rivers Reservoir
Mora – Mora River at la Cueva

Priority 3

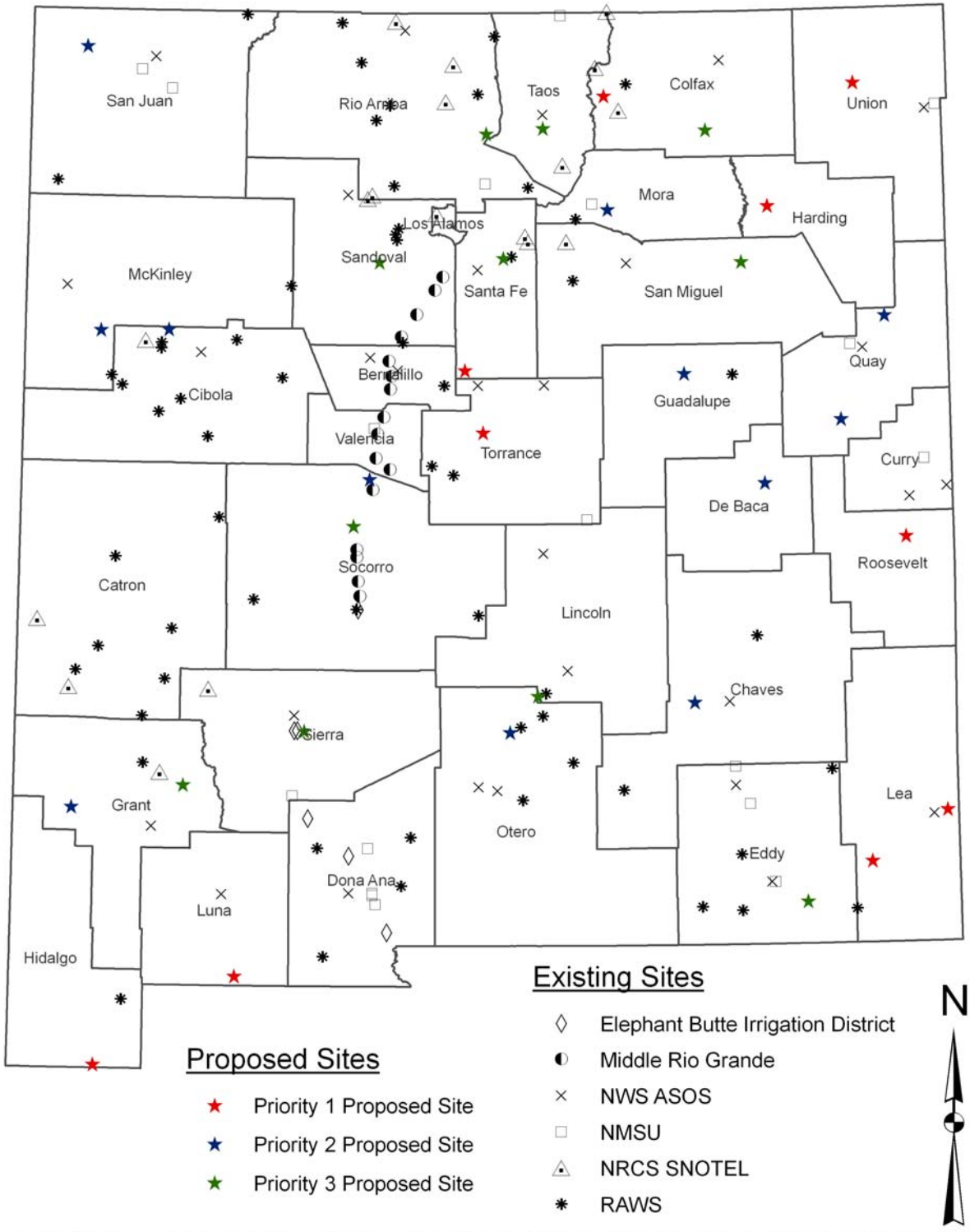
Grant – Mimbres
Sierra – Rio Grande below Elephant Butte
Socorro – San Acacia
Eddy – Pecos River near Malaga

San Miguel – Canadian River at Conchas
Sandoval – Jemez River near Jemez
Rio Arriba – Rio Ojo Caliente
Santa Fe – City of Santa Fe
Taos – Rio Pueblo de Taos near Taos
Lincoln – Rio Ruidoso at Ruidoso
Colfax – Cimarron River near Springer

The cost to upgrade stations with existing platforms is $3500, for a total cost of $39,650 for Priority 2 stations and $39,650 for Priority 3 stations, at a total cost of $79,300 for all upgraded stations in Priorities 2 and 3. This includes the $1,144 required for every ten sites to provide costs for spare equipment.

To provide stations for all three priority levels plus the 23 existing manual sites to be automated would be a grand total of $575,450.

New Mexico Automated Weather Stations



Note: All sites are plotted in the Geopraphic Coordinate System (GCS) North American Datum (NAD) 1927 projection.

Appendix B: Executive Order 2003-019

Bill Richardson, Governor
State of New Mexico
Office of the Governor

EXECUTIVE ORDER 2003-019

WHEREAS, portions of New Mexico have experienced mild drought conditions since 1996; and

WHEREAS, drought conditions intensified during the extremely dry winter of 2001-2002 and spring of 2003, with large portions of New Mexico experiencing severe to extreme drought conditions; and

WHEREAS, total statewide reservoir levels are at their lowest point since October 1978; and

WHEREAS, it may take several years of significantly higher than normal levels of precipitation and. snow pack to allow for current reservoir storage to recover to levels that will satisfy all demands; and

WHEREAS, the National Weather Service and Natural Resource Conservation Service's coordinated May 1 snow pack runoff forecast projects below to well below normal runoff volumes at 600/0 of the forecast location in the state, including the Canadian, Rio Grande and San Juan river basins; and

WHEREAS, present composite snow pack levels for eight of the ten basins in. the state are significantly lower than the thirty year averages for those areas; and

HEREAS, the present combination of low reservoir levels and projected snowmelt runoff forecasts continues to match the lows for the state not seen since the drought of the mid- I 970s; and

WHEREAS, runoff into some major streams is expected to be as low as 53% of normal; and

WHEREAS, stream flow during water year 2002 on the Pecos River was the lowest since 1950 and on the Rio Chama was the lowest since 1977; and

WHEREAS, five-year precipitation deficits of up to I8 inches have been recorded in two basins; and

WHEREAS, the National Weather Service believes that long-term trends indicate that the State may be entering a period of prolonged drought; and

WHEREAS, the El Nino Southern Oscillation trend forecast to bring an increased amount of winter precipitation has not fully developed this year; and

WHEREAS, there is a shortage of soil moisture in the rangelands and forests; and

WHEREAS, the National Oceanographic and Atmospheric Administration's (NOAA) Vegetation Health Index throughout 2002 showed a high level of stress on range and farm land throughout the State; and

WHEREAS, it may take a considerable amount of precipitation and snow melt runoff to return the soil moisture conditions and vegetation health to reasonable levels; and

WHEREAS, fire conditions are expected to reach a critical stage in many areas of the state this spring and summer; and

WHEREAS, compliance with Endangered Species Act may be compromised by the drought; and

WHEREAS, the New Mexico Drought Monitoring Work Group has recommended that warning or emergency conditions have been met in the majority of the state's eight climate divisions; and

WHEREAS, all indications are that drought conditions are not likely to abate in the near future and may worsen; and

WHEREAS, extraordinary measures are necessary to protect public health, ensure public safety and well being, and provide for the economic stability of the State.

NOW, THEREFORE I, Bill Richardson, Governor of the State of the State of New Mexico, by virtue of the authority vested in me by the Constitution and Laws of the State of New Mexico, do hereby declare a state of emergency due to drought conditions statewide; and

I FURTHER DIRECT the establishment of the New Mexico Drought Task Force as follows:

1. The Task Force shall be composed of the following members:

   a. The State Engineer, or designee, who shall serve as Chair.
   b. The Secretary of the Environment Department, or designee, who shall serve as Vice Chair.
   c. The Executive Director of the New Mexico Finance Authority, or designee, who shall serve as Secretary and shall provide staff and administrative support to the Task Force.
   d. The Director of the Interstate Stream Commission, or designee. e. The Secretary of the Energy, Minerals and Natural Resources Department, or designee.

f. The Secretary of the Department of Finance and Administration, or designee.
g. The Secretary of the Department of Agriculture, or designee.
h. The Director of the Office of Emergency Management of the Department of Public Safety, or designee.
i. The Secretary of the Office of Indian Affairs, or designee.
j. The Director of Policy and Planning in the Office of the Governor, or designee.
k. The Secretary of the Department of Economic Development, or designee.
l. The Secretary of the Tourism Department, or designee.

2. The purpose of the Task Force shall be to provide ongoing oversight and examination of statewide drought conditions.

3. The Task: Force shall make recommendations to the Governor for intermediate actions and long-term strategies to mitigate drought conditions and impacts in the State.

4. The Task Force shall appoint such Working Groups as may be necessary and appropriate to examine and recommend solutions regarding the drought conditions to the Task Force,

5. The Task Force shall provide guidance and information to the Governor regarding drought conditions.

6. The Task Force shall invite local government officials, federal officials, and Indian tribes and pueblos to participate in the activities of the Task Force.

7. The Task Force shall meet at least once each quarter of the year and shall conduct all meetings and maintain written minutes of their proceedings in conformity with the provisions of the New Mexico Open Meetings Act.

8. The Task Force shall meet immediately upon execution of this Executive Order to establish its organizational structure and revise the New Mexico Drought Plan to conform to the provisions set forth herein. The Task Force, thereafter, shall prepare and submit, on or before November 1 of each year, an annual update of the New Mexico Drought Plan, which shall include recommendations to the Governor for drought mitigation actions.

9. For purposes of conducting business, a majority of the membership of the Task Force shall constitute a quorum.

I FURTHER ORDER the activation of the New Mexico Drought Plan upon its revision as set forth herein to assess conditions, evaluate impacts, and make recommendations as to appropriate response and mitigation actions to be taken; and

I FURHTER AUTHORIZE all executive branch agencies of state government to apply for and, if eligible and qualified, receive emergency funds as required to carry out the New Mexico Drought Plan and for such other disaster relief related to drought as set forth in this Executive Order, such funds to be released upon approval by the Office of the Governor based on the recommendation of the New Mexico State Drought Task Force, pursuant to and in accordance with Sections 6-7-1 through 6-7-3, NMSA 1978.

This Executive Order supersedes any other previous orders, proclamations or directives in conflict. This Executive Order shall take effect immediately and shall remain in effect until such time as it is rescinded by the Governor.

ATTEST:

REBECCA VIGIL-GIRON SECRETARY OF STATE
DONE AT THE EXECUTIVE OFFICE THIS 30th DAY OF MAY, 2003.

WITNESS MY HAND AND THE GREAT SEAL OF THE STATE OF NEW MEXICO.
GOVERNOR BILL RICHARDSON

Appendix C: Drought Task Force Members

DROUGHT TASK FORCE MEMBERS				
NAME	**ADDRESS**	**TELEPHONE**	**FAX**	**E-MAIL**
John D'Antonio **CHAIR**	NM State Engineer Office of the NM State Engineer PO Box 25102, Santa Fe, NM 87504	505-827-4193	505-827-3806	jdantonio@ose.state.nm.us
Ron Curry	Secretary Department of Environment 1190 St. Francis Drive, N4050, Santa Fe, NM 87503	505-827-2855	505-827-2836	ron.curry@nmenv.state.nm.us
I. Miley Gonzalez	Secretary Department of Agriculture MSC 3189, PO Box 30005, Las Cruces, NM 88003	505-646-5063	505-646-8120	nmagsec@nmda.nmsu.edu
William Sisneros	Executive Director NM Finance Authority 409 St. Michael's Drive, Santa Fe, NM 87505	505-984-1454	505-984-0002	wcsisneros@nmfa.net
Rick Homans	Secretary Economic Development Department 1100 St. Francis Drive Santa Fe, NM 87505	505-827-0330	505-827-0328	rick.homans@edd.state.nm.us
William Hume	Director Policy and Planning Capitol, Santa Fe, NM 87505			william.hume@state.nm.us

DROUGHT TASK FORCE MEMBERS				
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Tim Manning	Acting Director Office of Emergency Management of DPS P.O.Box 1628, Santa Fe, NM 87504	505-476-9622	505-476-5922	tmanning@dps.state.nm.us
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Joanna Prukop	Secretary Energy Minerals & Natural Resources Department 1220 S. St. Francis Drive, Santa Fe, NM 87505	505-476-3227	505-476-3200	jprukop@state.nm.us
Benny Shendo	Secretary Indian Affairs Department 228 E. Palace Avenue, Santa Fe, NM 87501	505-476-1600	505-476-1601	benny.shendo@state.nm.us

Appendix D: Drought Task Force Work Group Members

MONITORING WORK GROUP				
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Deborah Bathke	New Mexico State University, Assistant State Climatologist New Mexico CoCoRaHS Coordinator	505 646 6327	505 646-6041	djbathke@nmsu.edu
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Don Gallegos	US Army Corps of Engineers 4101 Jefferson Plaza, NE Albuquerque, NM 87109	505-342-3383	505-342-3195	Donald.J.Gallegos@Spa02.usace.army.mil
Charlie Liles	National Weather Service 2341 Clark Carr Loop, SE Albuquerque, NM	505-243-0702	505-244-9151	charlie.liles@noaa.gov
Ed Polasko	National Weather Service 2341 Clark Carr Loop, SE Albuquerque, NM	505-243-0702	505-244-9151	ed.polasko@noaa.gov
Richard Armijo	US Dept. of Agriculture Natural Resources Conservation Service 6200 Jefferson, NE Albuquerque, NM 87109	505-761-4428	505-761-4462	richard.armijo@nm.usda.gov

MONITORING WORK GROUP				
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