

PUTTING THE 2008-2009 DROUGHT INTO PERSPECTIVE

BY BOB ROSE

You know things aren't quite right when normally arid West Texas is lush and green while Central and South Texas is brown, toasty and all but burned up. This unusual pattern is part of the makeup of an exceptional drought that currently grips about a third of the state.

In Texas history, there have been droughts, and then there have been really bad droughts. Over the past 110 years, several drought years stand out as the worst of the worst: 1910, 1917-1918, 1925, 1953-1956 and 1971.

Now, after nearly two years of drought and unprecedented heat across South Texas, we can add a couple of more years to this list: 2008 and 2009.

Recent data confirms that for much of South and Central Texas, the ongoing drought is indeed comparable to some of the worst droughts ever recorded. And for some locations, the past two years of drought have been even more severe than the worst droughts on record.

The current drought started off in 2008 as a product of a nearly two-year-long "La Niña" pattern, which typically results in a drier weather pattern for our region. But as La Niña faded this spring, drought conditions deteriorated even further. Storm systems became infrequent, and the parched ground left over from 2008 grew even drier.

As summer hit, high pressure strengthened directly over Texas, making a bad drought even worse. The combination of numerous

sunny days, temperatures well above 100 degrees and little rain created some of the most brutal summer weather conditions ever recorded.

The month of July alone tuned out to be not only the hottest July on record but also the hottest month ever recorded for San Antonio, Austin, Houston, Corpus Christi and McAllen. And many of these same locations are on pace to establish their hottest summer ever.

These conditions have devastated farmers and ranchers across South and Central Texas and caused water supplies in this area of the state to drop to some of the lowest levels in more than 50 years.

Most climatologists and water planners agree the drought of the mid-1950s is the drought of record for most of Texas, due to the severe lack of rain and the long period of drought.

But it's interesting to note that according to Dr. John Nielsen-Gammon, the Texas state climatologist, the recent lack of rain in combination with this summer's unprecedented heat have made the current drought the most severe on record for nine counties in Texas: Bastrop, Caldwell, Lee, Victoria, Bee, San Patricio, Live Oak, Jim



Bob Rose, LCRA Chief Meteorologist

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TWDB/TNRIS NFIP MAPPING SERVICE GROUP UPDATE

By MELINDA LUNA

The past four months have been very busy for the newly formed National Flood Insurance Program (NFIP) Mapping Group. I would like to tell you about three major items that will help advance floodplain mapping for the future.

The first item is that the Federal Emergency Management Agency (FEMA) and Texas Water Development Board (TWDB) have been having consistent coordination meetings every month. This will help coordinate work between the two agencies.

Along the same lines, the Texas Silver Jackets has met with TWDB and begun drafting goals for the Silver Jackets Group. The Silver Jackets is a nationwide movement from the U.S. Army Corps of Engineers and FEMA to “develop and implement solutions to state natural hazard priorities.” To read more on the Silver Jackets effort go to the following link: <http://www.iwr.usace.army.mil/nfrmp/docs/Silver%20Jackets%20-%20Many%20Agencies,%20One%20Solution.pdf>

The second item is that the North Central Texas Council of Governments (NCTCOG) and TWDB have initiated a pilot project for assessing mapping needs. This project is in its final stages and will help TWDB in gathering mapping needs statewide.

The prioritization criteria and process are being tested in the Upper Trinity River basin of the NCTCOG. The project consisted of holding stakeholders meetings to enable communities to look at previously collected needs and determine if those needs were still valid. A presentation will be done at the TFMA conference covering the lessons learned and findings of the pilot study. Once the study is complete, the state will kick off collecting floodplain mapping needs for the state.

Gathering FEMA’s Coordinated Needs Management Strategy (CNMS) is also included in the pilot study. CNMS is FEMA’s set of criteria to validate a

floodplain mapping need. Some communities outside of the NCTCOG have submitted their needs to the TWDB. A Statewide Map Needs Assessment will give a better picture of what is needed in Texas for floodplain mapping.

The third item is that the NFIP Mapping Group has received a number of requests for data that include requests for assistance on understanding preliminary maps to effective maps, assistance on gathering information for studies, and general information.

The group has organized a library of the effective paper maps and inventoried the maps. The public can access this library by visiting the TWDB/TNRIS group in the Stephen F. Austin building at 1700 North Congress, Room B40, in Austin. Requests can be scheduled ahead of time by calling (512) 463-9625 or filling out a customer service form at <http://www.tnr.org/CustomerSupport.aspx>

The group is also placing preliminary maps on the Geospatial Emergency Management System (GEMSS) at <http://gemss.tnr.org>. GEMSS is a Web site that allows the user to overlay various maps over aerial imagery and other data. Anyone can sign up for a user account and use the site once the user has signed in. Various data sets are available, including historical hurricane tracks, rainfall information, evacuation routes, soil maps, FEMA DFIRMS, and other data sets.

The group is also in the process of hiring more staff. Job postings are posted at: http://www.twdb.state.tx.us/ABOUT/employment_opportunities/Employoport.asp.

The TWDB plans to give a presentation at the TFMA conference in Galveston on activities for 2009.

DRAFT MITIGATION PLAN UPDATE AVAILABLE ON TCRFC WEB SITE

A draft update of the Hazard Mitigation Plan is available for review on the Texas Colorado River Floodplain Coalition Web site at www.tcrfc.org.

The update, prepared by TCRFC, LCRA, H₂O Partners, Inc., and subcontractor PBS&J, addresses nine natural hazards and four manmade hazards affecting the lower Colorado River basin that have been identified since the original Hazard Mitigation Plan was developed in 2004. Updates are based on comments received from participating TCRFC jurisdictions and the public.

The Governor's Division of Emergency Management (GDEM) is currently reviewing the draft update. Once GDEM approves the update, TCRFC will notify all jurisdictions via e-mail and the TCRFC Web site.

GDEM will then submit the updated Hazard Mitigation Plan to the Federal Emergency Management Agency (FEMA) for review and approval. Following FEMA approval, each participating TCRFC jurisdiction will have one year to formally adopt the updated plan through a resolution. A sample resolution is included in Appendix A of the plan.

Funding to update the Hazard Mitigation Plan came from a 2008 hazard mitigation grant from FEMA.

TFMA FALL 2009 CONFERENCE IN GALVESTON

BY ROY SEDWICK, CFM, TFMA EXECUTIVE DIRECTOR

After setting yet another attendance record in San Marcos, TFMA has scheduled the Fall Conference for October 13-15, 2009 in Galveston, Texas. Most of you will want to arrive on Monday, October 12 since the conference will kick off early Tuesday with workshops and an afternoon plenary session. We will also have a field trip, maybe two depending on demand, to visit Bolivar to see the damage from Hurricane Ike and see the ongoing recovery efforts. Our host hotel is the beautiful San Luis Resort located on the Galveston Seawall and overlooking the Gulf of Mexico. This is a wonderful property and with the rates we have for the conference, it is a bargain you can't afford to pass up. TFMA has a signed contract, and the hotel is ready to take reservations. To make your reservations, call the hotel direct at 800-392-5937 and say you're with the TFMA Flood Conference. We have a block of rooms set up for the conference with a rate of \$85.00 single

or \$145 double - fantastic rates for a resort hotel. If you are tax exempt, please notify the hotel when making reservations and bring your Tax Exempt certificate when checking in. Cutoff date for reservations is September 12, 2009. This is a conference you must make. Lots of great opportunities to learn more about your profession, network with some of the state's finest floodplain managers and even celebrate Mother Nature at our Hurricane Party. See you in Galveston in October.



COALITION CORNER

There are some exciting things happen for the members of the Coalition. Read on to found out more.

New Map Needs Assessment Being Planned

With Melinda Luna moving to her new position at the Texas Natural Resources Information System (TNRIS), a new map needs assessment plan is emerging for Texas.

Melinda will soon be asking all communities to submit a detailed map needs assessment electronically via a new Web site. TCRFC will send you the link to the Web site, as soon as it is ready.

It will be vital for all TCRFC member jurisdictions to provide a detailed description to TNRIS on local mapping needs. Please plan on attending one of the TCRFC regional meetings listed below for more information, as this project is evolving day by day.

The information Melinda will need from every community can be found on the TCRFC website at www.tcrfc.org. You can contact Melinda directly for more information about the project:

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Team Lead, NFIP Mapping Services
TWDB/TNRIS
Mailing address: P.O. Box 13231, Austin, Texas 78711-3231
Physical address: 1700 N. Congress, Room B-40, Austin, Texas 78701
Phone (direct line): (512) 463-9625 (Direct Line)

You can read a report from Melinda elsewhere in this issue.

Spanish Language Translation

Over the past few years, the lower Colorado River basin has experienced a number of emergencies such as wildfires, drought, floods, hurricanes, and tornadoes -- and let's not forget the potential for incidents involving hazardous materials.

Concern has been growing among the emergency management community that we may not be communicating to the need for action during these emergencies to all residents who may be at risk.

A frequent and growing concern is: How do we warn and communicate with non-English speaking residents? Consider these examples:

- Most folks would agree with the need to reach Spanish-speaking populations in our basin. But many folks may not realize that our coastal region includes a significant population that speaks Vietnamese. Are we reaching this group with our communications?
- LCRA has done much to ensure that most of the lower Colorado River basin is covered by localized broadcasts of NOAA Weather Radio All Hazards to alert residents to weather watches and warnings. But these important broadcasts are in English only.

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COALITION CORNER CONT.

- The general public gets a lot of emergency and weather information from local radio and television. But how do we work with local broadcast stations to communicate to non-English speaking residents?

The TCRFC would like to work closely with the Texas Flash Flood Coalition as it moves forward with ideas and projects to address this issue of reaching non-English speaking residents.

The Texas Flash Flood Coalition has already asked about TCRFC's plans for a Spanish-language component to our emergency communications. We have determined that many Spanish-language radio stations in Central Texas do not provide news and often neglect to pass on emergency messages in Spanish.

One of our goals is to support Spanish-language emergency messages on radio and television. This is important not only to the Spanish-speaking citizens in our basin, but also to those from Mexico and Latin America who are in our region to work or to visit.

Another goal is to get the media to provide emergency announcements in other languages for other ethnic groups. This could be easily done by the use of scrolling in various languages during television weather reports or emergency announcements.

TCRFC also supports working with the National Oceanic and Atmospheric Administration to broadcast weather watches and warnings in Spanish on NOAA Weather Radio All Hazards.

Working together with our partners, TCRFC can make this happen and the lower Colorado River basin a safer place to live and work.

TCRFC Regional Meetings Schedule

We look forward to seeing you at the Regional Meetings. Each meeting will cover two topics: discussion of the Map Needs Assessment and the National Weather Service will give a presentation on Advanced Hydrologic Prediction Service (AHPS). These are open meetings you do not have to attend the meeting in your region. You may choose one that is more convenient for you to attend.

Monday, Aug. 24	9 a.m. to noon
Region 4: San Saba – San Saba Civic Center, 1190 S. Thomas Stewart	
Wednesday, Sept. 2	9 a.m. to noon
Region 2: Austin – LCRA Redbud Center, Room 108S, 3601 Lake Austin Blvd.	
Friday, Sept. 4	9:30 a.m. to noon
Region 1: Bay City – Matagorda County Annex, 2200 7th Street	
Tuesday, Sept. 8	9 a.m. to noon
Region 3: Marble Falls – Lakeside Pavilion, 307 Buena Vista	

MONICA MARTIN RECIEVES THE TFMA FLOODPLAIN MANAGER OF THE YEAR.

Monica Martin, CFM, received the Texas Floodplain Management Association (TFMA) Floodplain Manager of the Year award. Monica serves as the Floodplain Administrator for Wharton County and the Texas Colorado River Floodplain Coalition (TCRFC) Region I Representative. In these two positions Monica accomplished the following:

- Planner-in-Charge for the Wharton County Flood Mitigation Plan, which was the first county-wide flood mitigation plan completed in Texas
- Wharton County Representative and TCRFC Region I Director for the TCRFC basin-wide, all-hazard, Mitigation Plan
- Wharton County Representative for the San Bernard River Watershed Study that encompassed five Texas counties
- Wharton County Representative for the Wharton County (county-wide) Drainage Master Plan
- Wharton County Representative for the FEMA Region VI Wharton County remapping effort
- Wharton County Representative for the US Army Corps of Engineers Colorado River Flood Damage Reduction Project



Monica Martin with Wharton County receives Floodplain Manager of the Year

Monica Martin is a long time active member of TFMA and TCRFC. She has been employed with Wharton County for 25 years, with 23 years in floodplain, nine of those years as the Floodplain Administrator. When asked how she felt about receiving the award Monica said, "Receiving the TFMA FPM award was the proudest moment of my career. With the wealth of knowledge and wonderful people in TFMA, winning this award validated the work I have done. I truly appreciate the nomination and award, but mostly appreciate the friends I have made working with TFMA."

Congratulations Monica on this well deserved award!

PUTTING THE 2008-2009 DROUGHT INTO PERSPECTIVE CONT.

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Wells and Duval. The 1953-1956 drought was of longer duration but its intensity wasn't quite as extreme. The report states that for the rest of Central and South Central Texas, the intensity of the 2008-2009 drought has been greater than most but not quite all of the big historical droughts of the past 110 years.

The most extreme drought years in weather records is depicted in the accompanying map. Note the area southeast of Austin and from Victoria southwestward to near Alice. Both areas are currently experiencing the most severe drought conditions on record.

For most of Central Texas, the current drought is the most severe since 1956. Farther south, of the stations with sufficient weather records, two indicate a more severe drought in 1917, while three indicate a less severe drought than in 1917. North of Corpus Christi, the 1956 drought was more extreme in some areas and less extreme in others. To the west, Bexar and Guadalupe counties are experiencing drought conditions and second only to 1956. Further west, Uvalde County's current drought is exceeded in severity only by 1918. Any way you look at this, it's not a pretty picture.

So after two years of extreme drought, the question is: When will things get better?

Looking at this from a historical perspective, most of the very bad droughts in Texas since 1900 have generally been about two years in length. But the record drought of the 1950s lasted between three and five years. So, if history is correct, the current drought should ease if not break sometime this fall or winter.

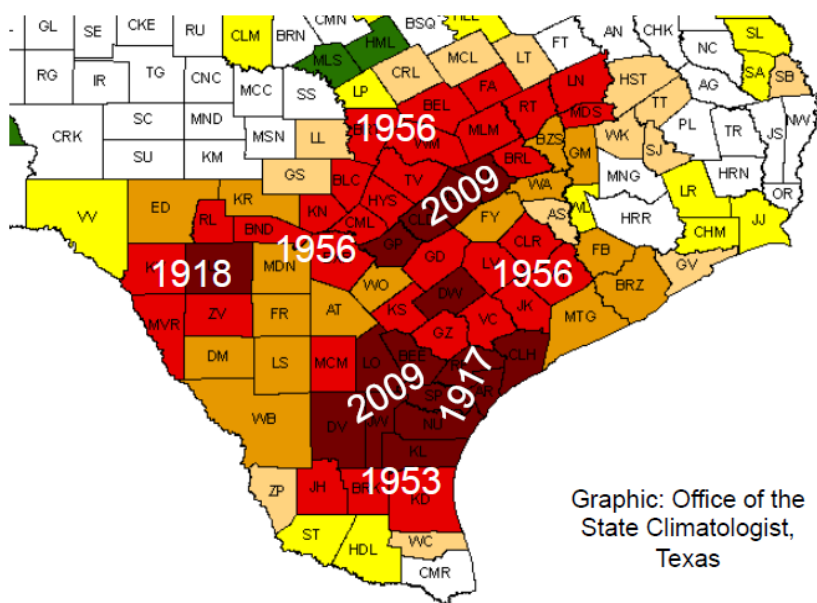
From a scientific perspective, a weak to moderate El Niño has developed and El Niño's typically bring most of Texas above normal rainfall during the fall and winter months. Forecasters expect the "wet" influence from El Niño will begin sometime in October or November, with above-normal rain continuing through the winter and early spring.

But it's going to take a lot of rain to completely end a drought of this magnitude— somewhere in the range of 15, 20 or more

inches. Of course, a dying tropical storm has been known to produce this amount of rain across Texas in a day, and we may yet see activity from the tropics influencing our weather pattern this fall.

I'm encouraged about the increasing chance for rain this fall and winter. Hopefully, these rains will be heavy enough to end this terrible drought, and we can finally put the drought of 2008-2009 to rest in the history books.

Most severe summertime drought years as of 2009



Graphic: Office of the State Climatologist, Texas