TEXAS WATER UTILITIES
JOURNAL

DROUGHT MANAGEMENT
ARE YOU PREPARED FOR A WATER CRISIS?

by Sam Godfrey, TWUA P.E. Committee

Did your water system survive last summer's peak water demands and the effects of the hot weather? If you struggled with water problems last year, its time to address those situations before its too late.

According to Austin, Texas meteorologist, Bob Rose, much of Texas is in the grips of a moderate drought. The current drought is associated with the on going La Nina phenomenon in the tropical Pacific. La Nina is characterized by unusually cool ocean temperatures in the tropical Pacific ocean. This body of unusually cold water has a profound effect on the jet stream across North America, and many parts of the world. For North America, a La Nina phenomenon causes the jet stream to primarily lift north into western Canada, then drive south in the northwestern US, then dive south in the northeastern US. When the jet bends this far to the north, rain storms tend to stay away from Texas, and unseasonably mild and mostly dry weather prevails. The latest long-range outlooks indicate that La Nina conditions should diminish next summer, and rainfall patterns may return to normal at that time. However, until then, it appears that mostly dry conditions will continue across central Texas.

A State record of eighteen 80 degree November days in Austin, may be a "wake up call" for an upcoming drought. The dry winter weather and summery temperatures could create problems when water systems reach their peak demands again. Are you prepared for a water crisis. It could be only a few months away.

The Texas Natural Resource Conservation Commission adopted amendments on January 20, 1999, to the Commission's rules regarding Water Conservation Plans and Drought Contingency Plans. The submittal of a Drought Management Plan to TNRCC By September 1, 1999 for the following :

• Retail public water suppliers providing service to more than 3,300 connections.

• Wholesale public water suppliers.

Retail public water suppliers serving under 3,300 service connections must prepare, adopt and have upon request for the TNRCC a Drought Contingency Plan By September 1, 2000.

Do you have an active drought management plan for your water system? What may seem to be a very small problem could become an emergency situation later. The winter allows some "Down Time" to plan for the upcoming summer water demands. Hot Texas weather will put a strain on a water system and now is the time to implement a strategy. As the water purveyor, the utility is responsible for the customer's water use needs.

To receive a digital or print copy of the Drought Contingency Plan, contact the TNRCC Water Conservation and Drought Management Team at (512) 239-4730 or e-mail: bbilling@tnrcc.stste.tx.us

Planning For A Drought

A drought contingency plan will prepare a water system and help its customers survive the problems experienced during drought conditions.

One of the most over looked areas that affect the water crisis is a poorly maintained water distribution system. If a system is experiencing a high water unaccountability caused by leakage, you are in trouble before the drought begins. Reducing a known water loss will stop the waste of that precious resource, especially before the crucial time of a drought. The following tips may

TEXAS WATER UTILITIES
JOURNAL

"...Water Crisis" - *Continued From Page 1:*

help prepare your water system, before a drought or water shortage occurs:

Acquire Alternate Water Sources
• Interconnect service from adjoining water system.
• Drill or begin operation of existing wells in the area.

Public Education
• Educate customers with water conservation information inserted in monthly billing.
• Perform water conservation program at local schools.

Remedy All Known Water System Problems
• Repair all water leaks
• Repair or replace faulty equipment (pumps, motors, piping and electrical).

After you have corrected every known problem and feel as if your system is properly prepared for drought conditions, the final step is to complete a water audit. A water audit is a complete account of all water distributed through a water system. It is the check and balance of your water system. If you properly complete a water audit, it will help identify all unaccounted for water. Ask yourself if you can live without this much water or would you like to have it in storage? Locating this "wasted water" and completing a drought contingency plan could prevent you from sending your customers a water rationing notice early this summer.

"Hands On Sonic Leak Detection"
Locating underground water leaks electronically, will identify problems below the surface. If you can't see it, you probably don't think about it and leaks can drain you of potential revenues and also cheat your customer of a much needed service. As mentioned earlier, the water purveyor is responsible to properly serve the customer, and procrastinating will not fix the problem. Prepare a drought contingency plan and correct your water systems problems before its too late.

Editors Note: *For water conservation or leak detection information contact the author Sam Godfrey at (512) 263-7043.*

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