Texas Water Resources Institute
make every drop count

WATER for WEST TEXANS

Why an Extension Water Program for West Texans?

WEST TEXAS! What a wild, scenic and yes, often desolate area it is. What rugged, self-sustaining and pioneering-type people settled West Texas! From the earliest paleo-Indians, Apaches, Comanche, Jumanos or Pueblos - to the Spanish and Mexican settlers, later, the first Anglo ranchers – all learned to know, respect and preserve the rare and precious waters or perish. West Texans never had to be taught or told that their water resources were precious – this is instinctive to people living and working in dry, arid climates and in deserts.

Sustainability is such a popular and yet relevant term today, regarding water and other natural resources. West Texans know the value of water! **Water is the lifeblood of our world NOT a commodity!** Our region ranges from an annual rainfall of 18+" in the east and in the higher mountains to only 8 inches a year in El Paso.

Experts say Texas will double in population by 2050! West Texans also must cooperate and work with our Mexico neighbors across the Rio Bravo. **We must all care for the water resources so crucial to our communities.**

"Chisos Panorama" by Steven Hopton, Big Bend National Park, Texas

Agua ES Vida! **Goal of "*Water for West Texans*"** Water IS Life!

Really, the name says it all……..Water for West Texans! But there is more to it than just water. Sustainability for the region is a key issue and it is a goal to assist ALL West Texans to have a permanent supply of pure water suitable for all appropriate needs at an affordable price. In order to achieve the primary goal, water "awareness" must be raised; water resources knowledge improved and finally, increase the action level of West Texans in every walk of life, as "West Texas does not have the votes!" This new program will assist the region's leaders in that task.

In other words, it cannot be "business as usual" in planning and managing our region's precious resources – whether aquifers, lakes, riparian areas or watersheds. All of our creeks, rivers, lakes, aquifers and springs have great value and are irreplaceable – even our saline waters now produce valuable crops - or can be treated and used for many purposes, including drinking water supplies – as is now done in Pecos County!

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Applied Research Programs

Various appropriate water resources issues need to be studied across the region in cooperation with experiment station researchers, extension county agents, other extension specialists, other agencies and landowners. From these projects and demonstrations, we will develop publications and Fact Sheets to inform the West Texas public as to choices available to them in order to improve their lives and to achieve regional water resources sustainability. **Some examples of appropriate applied water resources research for West Texas could be:**

- Efficacy of drip irrigation for new crops or in new areas of the region
- Adoption of improved and more efficient irrigation methods on all crops
- Testing of new alternative and lower water using crops or perhaps crops better adapted to saline water.
- Providing agronomic and economic data for producer decision making regarding water issues
- Monitor effectiveness of government cost-share programs, such as the Riparian Buffer Practice of the USDA's Conservation Reserve Program
- Promoting and studying water resource storage practices such as Aquifer Storage and Recovery
- Monitor effectiveness of native riparian vegetation and wildlife recovery or of riparian plantings following salt cedar control and riparian restoration
- Watershed management on rangelands across the West Texas region to not only improve river and spring flows, but also to increase recharge of groundwater supplies by increasing forage/habitat quality and quantity
- Improved, more cost-effective methods of desalination of groundwater or surface water sources

Workshops and Seminars

Rainwater Harvesting, for landscapes, drinking water, livestock or wildlife water conservation, either domestic, landscape, public areas, crops, horticultural or irrigation

Riparian topics: system health, restoration and management

Alternative energy sources such as solar and wind power, for efficient water resources management and regional sustainability

RANGELAND RESCUE: upland, riparian and wildlife habitat restoration Extension Program

Grant writing/management for small water/wastewater systems, groups or communities

Leadership training for disadvantaged communities

A water resources summer camp for teachers to more rapidly reach the youth of the region

Golf course management and design on developing water conservation plans and efficient irrigation systems. Include desert golf course management, design and re-design principles

Desalination for various uses – domestic or agricultural

PROMOTION of SOLAR & WIND ENERGY for PUMPING WATER

Educational Exhibits & Presentations

Educational presentations will be held at the request of the county agents, other groups, or at the Extension Water Specialist's instigation on a wide variety of water resources topics that fall within the *Water for West Texans* program plan. These topics might include:

- domestic use water conservation, including recycling/reuse, landscapes;
- water quality
- rainwater harvesting
- water resources planning and management
- agricultural water conservation
- riparian zone issues
- watershed management – possibly with rainfall simulator
- desalination; and other appropriate subjects

COLLABORATION & INPUT

Texas Cooperative Extension, Texas Water Resources Institute and Texas Agricultural Experiment Station are dedicated to assure all Texans have a permanent and sustainable supply of clean water. **Population pressures, projections were not the only factors used to develop this program.**

Other water issues were raised by:

- Extension County Agricultural, Horticulture, Natural Resources & Family Consumer Science Agents;
- Concerns and problems outlined and projected in state Water Planning Group plans for West Texas;
- Extension Regional and District Directors concerning regional water issues;
- Regional research scientists and Center Directors on water problems;
- Public input at Texas Community Futures Forums, various types of water-related and agricultural gatherings across the region; and
- Input from other agencies, groups and organizations.

Some of these groups are appropriate partners for demonstration, education and/or research projects involving water resources in West Texas:

State Water Planning Groups – WPG meetings and also groundwater research groups.

EPA's American Heritage River Initiative Coordinate with Rio Grande Navigator regarding the Rio Grande River Basin.

EPA's Border 2012 Program – A US-Mexico environmental and water quality program.

Rio Grande Basin Initiative, USDA – resources for education, demonstration, research or informational projects

County/Local Irrigation, Groundwater and Water Utility Districts – assist with information, training and education opportunities

Pecos River Districts and River Council – Provide assistance, conservation and rehab opportunities regarding riparian management

Federal, State, County and Metro Agencies – Develop and utilize relationships with: federal agencies as needed; Native American groups, such as the Tigua Pueblo

Demonstration Sites

•"A picture is worth a thousand words!" Water resources BMP's will be demonstrated in cooperation with extension county agents, specialists, other agencies, businesses and landowners.

Some of these could be:

- Rainwater harvesting demonstration sites for drinking, landscape/garden irrigation, livestock and wildlife
- Water Smart landscaping for west Texas
- Upland rangeland watershed restoration
- Improving water efficiency of agricultural irrigation systems
- Use of energy efficient systems to pump or move water
- Installation of windbreaks to reduce water loss on cropland, vineyards, homes, parks or on golf courses
- Desalination of brackish groundwater and/or use of treated effluent