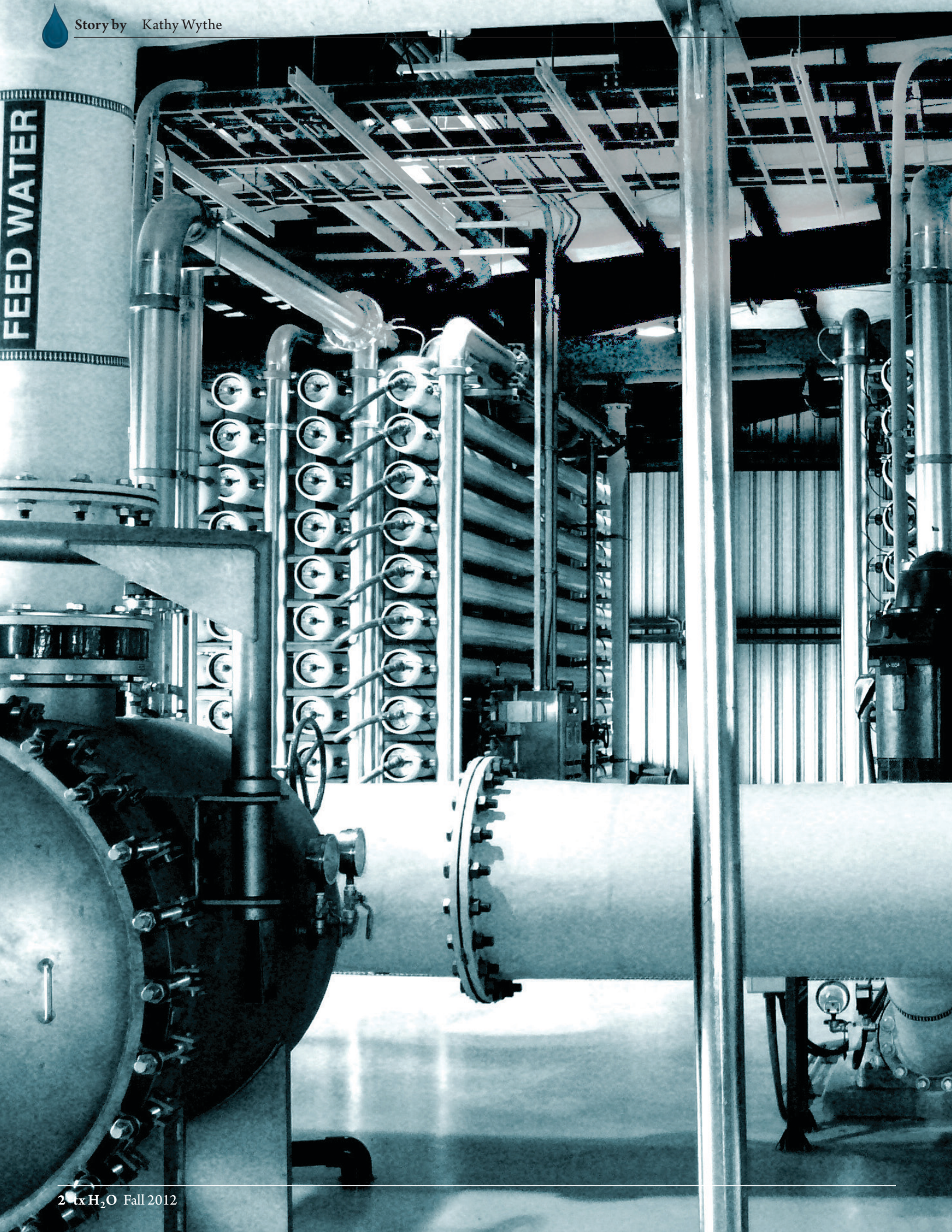




FEED WATER



# ON THE CUTTING EDGE

Director shares vision for center's role in addressing Texas water problems

The Texas A&M University System's Water Conservation and Technology Center was created to be on the cutting edge of helping Texas solve its water problems—problems that have gained attention because of the drought, increasing energy demands and Texas' economy.

The center is a collaboration with Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service, Texas A&M Engineering Experiment Station and Texas A&M University–San Antonio. It is administered by the Texas Water Resources Institute (TWRI) and Texas Center for Applied Technology (TCAT).

*txH<sub>2</sub>O* talked with Dr. Calvin Finch, the center's director, to find out more about the center.

**Q: What is the Water Conservation and Technology Center, and why is it needed?**

A: The center is the A&M System's effort to focus on water conservation and those important topics that are necessary to make the recommended water resources and conservation measures to successfully implement the state water plan. And, of course, unless we successfully implement the state water plan, we will have problems in continuing the economic growth and the quality of life that we all enjoy in Texas.

We have many resources at A&M that will be important to the future of meeting our water needs and the Water Conservation and Technology Center is the system's focal point. Our job at the center is to make sure we know what resources are available at Texas A&M University and the system's agencies. We need to mobilize these when needed and coordinate efforts to turn out products that will be required and useful to all the water purveyors, agencies and private sector firms that are important in successfully implementing the state water plan.

I am excited about being part of the Texas A&M effort to step forward to say, "We realize that as the premier university we have to do our part; we have to be there to provide answers and to interpret the research necessary to get the job done."

**Q: Does the recent drought make the center more important?**

A: Water issues now, after several years of drought, are more important. Because of its water challenges, San Antonio has been involved in water issues for a long time. But everybody is involved now in water issues and everybody is realizing that any community can be faced with water supply problems. It doesn't matter how much rain falls; it doesn't matter how full your reservoirs are at one point. Water can be used up and may not be refilled. So, you have to deal with these issues.

**Q: What do you see as the vision for the center?**

A: My vision for the center is that there will be lots of action. We will be contributing small parts to some issues and big contributions to other issues. We will be willing to get into the middle of any issues that come up that have to do with water.

We have identified four focus areas: 1) outdoor water conservation, 2) water reuse, 3) groundwater desalination and 4) energy development and water use. Those are our target areas. But we are going to be flexible; we are going to step forward to say that we are ready and willing to do what is necessary, with the result that we are going to help water purveyors, communities and private sector firms to do what they need to do to provide water.

**Q: As director, what are your first priorities and goals to accomplish and when do you hope they will be accomplished?**

A: My number one priority is I have to make sure I have a good grasp of the resources at Texas A&M. Also I need an advisory group. Decisions will need to be made on priorities and how to use our available resources from time to time, so having an advisory group will be necessary.

I have only been on the job for a short time, and I have found that there are opportunities out there that we have already been trying to address. ➔

Desalinating brackish groundwater is one area of water resources the Water Conservation and Technology Center is targeting. A desalination facility already in operation is the Southmost Regional Water Authority Regional Desalination Plant near Brownsville. Photo by Danielle Kalisek.



It is obvious that Texas A&M, TWRI, TCAT and the Water Conservation and Technology Center are going to play an important role in addressing water issues because already we have folks who are looking to us to help with issues they have.

**Q: Will the center collaborate only with Texas A&M or with others?**

A: The center's involvement will be statewide, and we are making that clear. We have a huge reservoir of experts at Texas A&M, and that is an advantage of the Water Conservation and Technology Center. We can use A&M's experts and researchers, people who have experience with every part of water issues. The inventory of those resources is going to be important, but we are not going to hesitate to collaborate.

If we are going to get this job done and keep the economic growth that we have enjoyed and keep moving in that direction, then we are going to have to do what is necessary to answer all of the questions about water resources. A&M expertise is a big part of that, but collaboration is necessary. We have to organize the experts needed to answer every question that comes up in terms of water resources.

**Q: The startup plan talks about the operating model of 1) applied research and development, 2) testing and validation or proof of concept and 3) technology transfer through training and extension education. Can you explain what that model is and why it is important?**

A: Quite often translating basic research into action at the end is the most difficult part of addressing an issue. That is what the Water Conservation and Technology Center is about. We have access to the personnel who can identify the research that exists and can look at it to see how the research might relate to the problem or issue we are attempting to address. They can translate that research, test the ideas to make sure they work and turn the ideas into solutions that are specific to the task we are looking at. As is important with anything we do at A&M, the center will help educate people on using the technologies that we come up with.

Water resources industry people can identify gaps in water resources issues; our job becomes addressing those gaps. Finding the research that is important to address those gaps, and manipulating and fine-tuning and passing on that technology to the people trying to make the state water plan a reality is needed.

**Q: As you said earlier, the center is focusing on four areas: 1) groundwater desalination, 2) water reuse, 3) energy development and water use and 4) outdoor water conservation. Is there one area that is more important than the others?**

A: I don't think any of them are more important. An important tenet of the Water Conservation and Technology Center is to be responsive to whatever opportunities and challenges are out there. For example, if those turn out to be more in the development of brackish groundwater as a good resource for providing communities the water they need, then we will concentrate our efforts there.

As we have seen in San Antonio and the surrounding region, water conservation can get a good response and can be applied across the board. It is one of those areas of potential increased water supplies that everyone—wherever they are—can take part in and contribute to solving the issue.

**Q: Does the center have any projects currently?**

A: We are working with the San Antonio Water System, looking at the energy used in its water distribution and production systems. We can make its water production more efficient if we can figure out ways to reduce the amount of energy required per unit of water produced.

We are also going to make an effort to get information and discussions on various water conservation topics distributed to communities and newspapers across the state.

We are discussing new projects with agencies, so we hope we will have a series of projects in place soon.

**Q: What are the long-term plans for the center?**

A: One of the things we will do is be flexible. We know what our goals are; we know what can be accomplished if we are to be successful. We know what the expectations from the state and the citizens of Texas are, so we are going to stay responsive. We are not going to create a structure where the structure becomes more important than the project. We are going to be light on our feet.

The way we are organized is a testimony to that. We are going to make use of all those experts and the support capability of Texas A&M and partnerships with private sector firms and other universities. Funding will come from agencies, water purveyors and communities where the issues are, as well as private sector firms.

