SAN ANTONIO – With the help of a $3.1 million federal initiative for irrigation water conservation, The Texas A&M University System is mounting a major research and education effort in San Antonio and the Rio Grande watershed to enhance water savings in urban landscapes as well as agricultural croplands.

The U.S. Department of Agriculture appropriation, sponsored by U.S. Rep. Henry Bonilla, R-Texas, will enable Texas A&M to find new ways to reduce irrigation demand in a region whose water resources have been strained by drought and rapid urban growth, said Dr. Ed Hiler, Texas A&M’s vice chancellor and dean for agriculture. He made the announcement at a news conference Monday at the HemisFair Plaza.

The funds also will provide seed money to design a world center for irrigation technology to be built in San Antonio. The proposed $20 million Irrigation Technology Center is envisioned to serve a world desperately in need of ways to stretch its freshwater supplies.

“We expect this center to lead the way in finding significant water savings through more efficient and effective irrigation systems,” Hiler said.

Agricultural irrigation is the single largest user of freshwater in many regions; in Texas it accounts for 65 percent of water usage.

In many urban centers, landscape irrigation uses 20 percent to 40 percent of municipal water supplies. In San Antonio, an estimated 30 percent of the city’s water supply winds up on lawns, golf courses and other urban green spaces.

The goal of the Irrigation Technology Center will be to help the irrigation industry become more
efficient by developing rigorous design standards and testing for equipment,

researching the most effective irrigation techniques, and educating both industry and consumers about best irrigation practices.

"Today we are announcing a development campaign to begin raising the funds necessary to build the Irrigation Technology Center," Hiler said. "We want San Antonio to be the home of the world's pre-eminent irrigation research and education center."

The $3.1 million funds the first year of a three-year federal initiative will enable scientists to research ways to conserve water in the Rio Grande watershed through improved irrigation supply networks, reuse of agricultural and municipal wastewater and enhanced field and urban landscape irrigation technology.

The scope of the work will stretch from Weslaco at the tip of Texas up the river through El Paso and into central New Mexico.

"This is a project that should benefit everyone along the Rio Grande," Hiler said, "because the initiative will focus on conserving water by reducing the amounts of irrigation needed for agriculture and urban landscapes."

One important part of the initiative involves providing training and technical assistance for irrigation and water system managers and operators, as well as agricultural producers. Much of the training will be done in San Antonio.

The proposed Irrigation Technology Center and the Rio Grande Basin initiative are examples of projects that are expected to come from a year-long visioning process that has just been completed by the Agriculture Program at Texas A&M University, Hiler said.

Agriculture Program 21 assembled 50 distinguished leaders from business, industry, education and government to examine what steps should be taken in the next 10 to 20 years to set a course for the new century.

"The result was a set of 11 priority goals developed in four broad areas in response to the tremendous challenges posed by accelerating changes in education, technology, the global economy and the environment," Hiler said. "One of these goals was the clear recognition that we must enhance Texas’s water resources -- the life blood of the state’s growth, economic development and quality of life."

The other goals focused on efforts to enhance technology research, educate and strengthen future leaders, and promote human and economic health.

Hiler praised the citizens panel, a number of whom were on hand for the announcement, for
helping the Texas A&M Agriculture Program renew its commitment for “making a difference for the
type of Texas and throughout the world.”

Funds for construction and operation of the 500-acre Irrigation Technology Center will be
raised from private donations and government appropriations. No site for the center has been selected
yet, said Dr. Guy Fipps, an agricultural engineer with the Texas Agricultural Extension Service who is in
charge of the project. The first step will be to formulate a development plan for the center, which
should be completed next year.

Major portions of the center’s acreage will be devoted to evaluating the latest technological
advances in all leading agricultural irrigation systems, including drip, sprinkler and furrow irrigation,
Fipps explained. These facilities will allow side-by-side comparisons, hands-on instruction, testing,
performance evaluations and applied research.

Urban programs at the center will focus on perfecting the technology involved in home lawn and
commercial landscape irrigation systems. The center also will have a hydraulics lab and several irrigation
labs for the independent testing and certification of irrigation equipment, procedures not done on this
scale anywhere else in the world.

“Because no independent design standards exist for irrigation equipment,” Fipps said,
“consumers as well as industrial users don’t have assurance that the systems they purchase will perform
as claimed.”

The center also will seek to become a leader in a relatively new area of water conservation –
the reuse of treated wastewater for irrigation of crops and landscapes.

“We think there is tremendous potential for saving water by expanding uses of reclaimed
water,” Fipps said, but more research is needed to address concerns about water quality, plant
response, corrosion and wastewater system design and management.

“That’s where this center can have a major impact.”

The center as proposed would employ more than 40 people and have a $2.5 million to $3
million annual operating budget, Fipps said. It is expected to draw more than 21,000 people annually
for trainings, workshops and visits and to generate a yearly economic impact of $23 million in business
sales.

Fipps said initial planning of the center has been guided by an advisory committee of San
Antonio-area partners, including the San Antonio Water System, the San Antonio River Authority, the
Medina County Ground Water Conservation District and the City of San Antonio.

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