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To overcome the challenge of a shrinking workforce, the city of Irving, Texas, is building a pipeline of a different sort—one that will deliver trained candidates with specialized qualifications to the labor pool.

BY DONNA HULLDESTON STARLING AND DAVID C. CANADY

EDUCATION AND TRAINING: HIGH SCHOOL STUDENTS GAIN EARLY EXPOSURE TO THE WATER INDUSTRY

Statistics foretell a bleak story: The existing trained water utilities workforce will be depleted by up to 50 percent in the next 5–10 years. The problem is exacerbated by the industry’s relative obscurity, as well as its high customer service standards that dictate problems must be resolved quickly with as few disruptions as possible.

To help meet these challenges, the city of Irving (Texas) Water Utilities Department is partnering with the Irving Independent School District (IISD) Career Technology Education Program, under the auspices of the Texas Commission on Environmental Quality (TCEQ), to provide training in public high school classrooms for preparing graduating seniors to pass water and wastewater licensing examinations. The entities have been working for the last two school years to expand career development potential and job skills for students at the Union Bower Center for Education, renamed the Barbara Cardwell Career Preparatory Center in January 2010.

Irving utilities staff identified IISD school administrators who wanted to expand the district’s Career and Technical Education program. Curriculum originality, a wealth of employment venues and opportunities, an emphasis on environmental science, and content that complemented high school math and science coursework were key in course implementation. The course includes basic water and wastewater and safety instruction that emphasizes career preparation and employability of participants.
High school students in Irving, Texas, are given a head start on a promising future through training that prepares graduating seniors to pass water and wastewater licensing examinations and complements math and science coursework.
Workforce Management

The involvement of water utilities in delivering career and technical education programs has provided win-win results.

Serving Students
During its inaugural year, 14 students were enrolled in the program to pursue a basic water operations license through TCEQ. During the 2009–2010 school year, the program expanded, with 12 students working toward a basic water license and eight students pursuing a wastewater collections license. Although a license can’t be granted until a high school diploma is earned, two students have completed the course, successfully tested with TCEQ, and are pursuing employment in the water utilities industry.

To enhance instruction and ensure practicality for the new program, Irving Water Utilities staff meet with ISD students on an almost weekly basis. City staff provide classroom reviews of standard water utility training materials and oversee field trips and exercises. The school infrastructure provides a great laboratory, and the city’s field crews are eager to volunteer for various water-related demonstrations and training, which are intended to prepare students for success on one or more water licensing exams administered by TCEQ after high school graduation.

In the hope of expanding the Irving program to other school districts, the Workforce Strategies Committee of the Texas Section of AWWA is actively exploring the steps taken by the city of Irving and ISD. At least two community colleges have met with the city to explore the possibility of implementing a similar program in the state’s community college system.

Expansion
The involvement of water utilities in delivering career and technical education programs has provided win-win results. Students are well-served through increased employment opportunities; the school district enhances its programming; and the city fulfills several strategic initiatives in addition to expanding its pool of potential applicants for water jobs. From the city’s business perspective, helping to train a future workforce is important, and the results are enhanced through increased civic engagement, innovative educational programming, expanded community partnerships, and support for part of Irving’s at-risk population.

The program has received a lot of attention. Several entities are exploring the possibility of replicating the program at the high school and community college levels. Also, members of the Workforce Committee of the Texas Section of AWWA have expressed interest in how the program was initiated, visited the school, and provided AWWA student memberships.

Recognition
To acknowledge the program’s success, Irving has received several awards. In May 2009, the Texas Water Utilities Association recognized the program with a Public Education Award at its annual Corpus Christi conference. In 2010, the Texas Association of Partners in Education presented to the city of Irving Water Utilities Department the Gold Award for the Partnership Program Category of Innovation. The award recognized the success and innovation of the Water Utilities Operator Certification Program and the city’s partnership with ISD. The nomination highlighted the fact that students in the program had improved their scores on required state proficiency examinations. The utilities’ partnership with the school district also played a part in Irving Water Utilities being named 2010 Outstanding Utility by the Texas Municipal Utility Association.

A Promising Future
Valuable skills, water licenses paid for by the school district, and an array of career options give students a head start on their futures. The school’s core curriculum meets state requirements, emphasizes math and science, and provides tangible results in the form of water licenses.

Positives for the Irving water utility include the ability to identify students who have the greatest potential for success in the workplace, as well as providing another venue for delivering a message of conservation and wise water use. Ultimately, the water industry as a whole is well served by these results.

Program outcomes will continue to be assessed annually. However, inclusion of critical water utility content as a standard career/technical component in the public education system lays the foundation for a promising future through increased awareness of the industry and creation of a defined labor pool that can access growing employment opportunities. Widespread knowledge of this initiative and expansion to other interested utility and school system partners will contribute to overall success across the United States, further strengthening water utilities’ employment pipeline.