

Protecting Public Health and the Environment through Workforce Training

- Texas has some two million on-site wastewater treatment systems, serving approximately 20% of the state’s population. About 27,000 new residential and business on-site treatment systems—also called septic systems—are installed annually in Texas.
- Faulty systems are considered a significant source of the contaminants in 300 Texas stream segments that presently do not meet water quality standards.
- Proper operation and maintenance of these wastewater treatment systems is critical for protecting public health as well as groundwater and surface-water resources.

AgriLife Extension’s Response

- The Texas A&M AgriLife Extension Service has developed short courses and training centers to improve the skills of installers, site evaluators, designers, and inspectors of wastewater treatment systems.
- The *On-Site Wastewater Treatment Training Program* is conducted by AgriLife Extension. The



16-hour “Analyzing Wastewater Systems for High-Strength Waste and Hydraulic Loading” course focuses on analyzing facility-management practices for estimating wastewater characteristics. Wastewater treatment-train configurations and components are described for managing high-strength residential and business wastewater.

- The 8-hour “Overview of Advanced Wastewater Treatment Systems” course covers a broad spectrum of technologies and maintenance practices.
- The courses provide Continuing Education Units (CEUs) for on-site wastewater treatment practitioners licensed through the Texas Commission on Environmental Quality.
- In 2015, the program conducted three continuing education sessions for 43 practitioners.
- The program also offered courses for homeowners, training 222 individuals on the proper operation and maintenance of their private wastewater treatment system.

Economic Impacts

- The average annual wages for on-site wastewater treatment practitioners were used to value the wage impact of this training program.
- By providing quality education to the state’s on-site wastewater treatment practitioners, the *On-Site Wastewater Treatment Systems Program* supports 43 on-site wastewater practitioner jobs, with an estimated annual wage base of \$1.4 million.