

Visioning the Future of Wastewater Treatment & Reuse in Florida

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Society's expectations for wastewater treatment and disposal have continued to evolve over time. While protection of public health, and secondly protection of the aquatic environment continue to be the paramount concerns, the need to consider integrated solutions for meeting demands on water resources more frequently affects policy for wastewater treatment. Water quality standards set to meet multiple resource objectives have gradually expanded and become more stringent in response to the evolution of our expectations. Similarly treatment technologies have advanced as utilities have stretched to find affordable solutions to meet the expectations of their customers and their communities. Although society expects utilities to meet regulatory quality and quantity requirements various uses of water, continued growth of urban populations often casts the environmental professions as unwitting facilitators that for now have allowed urban centers to grow far beyond the natural capacity of the local water resources to sustain them.

With the passage in 1972 of both the Clean Water Act at the national level, and the Wilson-Grizzle Act at the state level, Florida came to lead the nation in the number of treatment plants providing advanced wastewater treatment. The environmental pressures that led to the initial widespread implementation of AWT in Florida are rapidly giving way to new drivers that will force many wastewater utilities in new directions requiring even more advanced treatment methods than are accepted as conventional AWT today.

The current status of wastewater treatment technologies in Florida is reviewed including the numbers and types of technologies in current use, and their typical performance. New drivers expected to shape future wastewater treatment plants are identified and discussed, and promising treatment technologies for meeting expected future requirements are presented.

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