

DEFINITION



Water recycling is the reuse of treated wastewater for beneficial purposes. A common type of recycled water is water that has been reclaimed from municipal wastewater, or sewage. Other terms for water recycling are water reclamation and water reuse. Beneficial uses include:

- Groundwater Recharge (to augment the water supply or to prevent salt water intrusion),
- Landscape and Agricultural Irrigation,
- Ecosystem Restoration, and
- Industrial Processes.



BENEFITS OF REUSE

- Guaranteed water supply- even in times of drought when potable use is restricted;
- Treated wastewater has more nutrients and may reduce application, and therefore costs, of fertilizer;
- Matches water quality with use so that affordable drinking water can be preserved for future generations;
- Can eliminate or reduce discharge of effluent into waterways; and
- Potential cost savings if the effluent is offered at a reduced price or is subsidized

WHY SHOULD RHODE ISLAND EXPLORE WASTEWATER REUSE OPPORTUNITIES?



Rhode Island has experienced successive drought conditions in summer months in recent years. Reduced water supply combined with population growth necessitates stricter controls on water consumption rates and identification of alternative water sources. Technological innovations and regulatory advances in the field of wastewater treatment and purification have improved consistency in effluent quality and pathogen destruction, resulting in improved safety to handlers and reliable quality for sensitive vegetation. As many current uses of water in the state do not require potable quality, substituting some of these uses with treated wastewater promises to alleviate heightened conservation measures. The Environmental Protection Agency and other federal agencies and environmental organizations have announced support for wastewater reclamation projects as a critical element in meeting present and future water demand. Reuse in the United States is predominantly located in southern and western regions, however, due to persisting water shortages Pennsylvania, Massachusetts, and other New England states have adopted water reclamation measures. Currently there are a few reuse programs in RI that take advantage of this untapped supply.

EXISTING REUSE PROJECTS



Jamestown Municipal Golf Course

The Jamestown Wastewater Treatment Facility (WWTF) has supplied effluent to the Jamestown golf course for irrigation since mid-1990. Jamestown officials' and the golf course operators worked closely with the Department of Environmental Management, the Department of Health, and members of the community to ensure that the new practice addressed health and environmental concerns. The WWTF is located one mile away and in summer months can divert almost all of its discharge to the golf course.



FPL Power Plant in Johnston

The Cranston WWTF has supplied effluent to FPL Power Plant for cooling since 2002. This power plant also worked with the Department of Environmental Management to craft regulations for this project. The WWTF is located 12 miles from the power plant which uses an average of 5 million gallons per day.

Other Reuse Applications in the State

Water is sometimes recycled and reused onsite; for example, when an industrial facility recycles water used for cooling processes. Many industries in RI have closed their process loops to save water and operation and permitting costs.

CLOSING THE LOOP BETWEEN WATER SUPPLY AND WASTEWATER DISPOSAL



FUTURE OUTLOOK

Implementation of wastewater reuse programs depends upon careful economic considerations, potential uses for reclaimed water, stringency of waste discharge requirements, public health considerations, and public policy emphasizing water conservation.

For this reason, various interested government regulatory and economic agencies, environmental groups, and representatives from agricultural groups and industry have been meeting to discuss and research the potential for a comprehensive wastewater reuse program that is tailored to Rhode Island's needs and future goals.



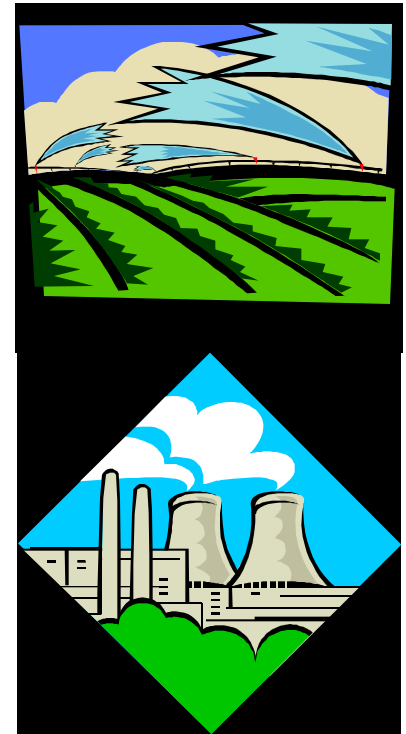
IF YOU ARE INTERESTED
OR
FOR MORE INFORMATION

Call :

Online:

Resources:

WASTEWATER RECLAMATION, REUSE, AND RECYCLING IN RHODE ISLAND



A GUIDE TO WASTEWATER REUSE

&

*EXISTING REUSE PROJECTS IN THE
STATE*