

# GE and Public Water Supplies

## Representative installations

### Port Hueneme, California

Operational 1998  
3 mgd (11,400 m<sup>3</sup>/day) including blending

Three different membrane technologies (RO, NF and EDR) produce 1 mgd (3,800 m<sup>3</sup>/day) each of high quality drinking water from brackish groundwater.

### Cape May, New Jersey

Operational 1998  
2 mgd (7,600 m<sup>3</sup>/day)

Product from a brackish groundwater RO system supplements this historic seashore community's supply, which is suffering from a salt water intrusion. The brackish well water feed is 2,500 mg/l TDS and the product water is < 150 mg/l TDS.

### Milan, Italy

Operational 1996  
3.1 mgd (11,700 m<sup>3</sup>/day)

GE designed, built, owns and operates RO plants for eight municipal supplies to reduce nitrate levels to meet safe drinking water standards.

### City of Sherman, Texas

Operational 1993  
6.0 mgd (22,700 m<sup>3</sup>/day)  
Expansions 1996, 1998

As a supplementary water source, EDR provides high water recovery and tolerance to variations in feed water quality from a highly mineralized lake water feed.

### City of Suffolk, Virginia

Operational 1990  
3.8 mgd (14,400 m<sup>3</sup>/day)

GE EDR was selected as the process of choice for the City due to its high water recovery, ability to address high fluoride content in the City's well water, and its low operating costs. The system produces high quality potable water with 94% recovery and a 73% reduction in fluoride levels.

### Brazos River Authority, Texas

Operational 1989  
5.0 mgd (18,900 m<sup>3</sup>/day)  
Expansion 1998

Consultants specified EDR for its favorable economics, adaptability to a variable river water feed and GE's 10-year guaranteed maintenance.

### Maspalomas, Canary Islands, Spain

Operational 1986  
9.8 mgd (37,000 m<sup>3</sup>/day)  
Multiple expansions to date

GE owns and operates two plants that sell fresh water to the local utility under 20 and 25 year contracts. EDR treats brackish well water while the RO plant desalinates seawater.

### Safaria, Israel

Operational 1993  
600,000 gpd (2,250 m<sup>3</sup>/day)

An GE EDR 2020\* system is designed to reduce the nitrate levels from 100 mg/l to less than 45 mg/l as nitrate while achieving 94% water recovery.



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### **Ruth Fisher School, Arizona**

*Operational 1999  
16,500 gpd (62 m<sup>3</sup>/day)*

This EDR system was installed in order to remove inorganic contaminants from groundwater and to reduce nitrates to meet U.S. EPA drinking water standards. The nitrate concentration in the feed is over 100 mg/l, and the EDR system produces water with low total dissolved solids and nitrate concentrations.

### **Kazusa Town, Japan**

*Operational 1998  
40,000 gpd (150 m<sup>3</sup>/day)*

This municipality was concerned about nitrate levels as high as 80 mg/l in their water supply. GE EDR was selected to reduce the nitrates to less than 27 mg/l in order to provide safe, great-tasting drinking water to the city.

### **BOD Donnington, United Kingdom**

*Operational 1997  
160,000 gpd (600 m<sup>3</sup>/day)*

A containerized EDR system with a single stage "Mark IV" membrane stack was installed to reduce nitrate levels to meet U.K. drinking water standards.

### **Milan, Italy**

*Operational 1996  
3,100,000 gpd (11,700 m<sup>3</sup>/day)*

GE designed, built, owns and operates RO plants for eight municipal supplies to reduce nitrate levels to meet safe drinking water standards.

### **Bermuda Water Works, Bermuda**

*Operational 1989  
600,000 gpd (2,300 m<sup>3</sup>/day)*

EDR is used to reduce hardness in the existing water supply. The brackish water lens under the island is contaminated from septic tank leach fields, making nitrate removal important. The plant removes 86% of the nitrates while achieving 90% water recovery.