



Coquina Coast

seawater desalination project

Seawater desalination is being examined as an option to diversify local water supplies and reduce reliance on groundwater. The goal is a sustainable water supply project that protects the environment while ensuring adequate drinking water to support the region's economy and quality of life.



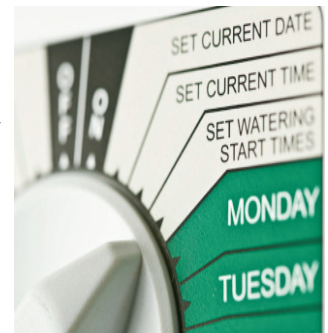
Planning for the Future

Palm Coast, Leesburg, DeLand and St. Johns County are working together, with support from the St. Johns River Water Management District, on the Coquina Coast Seawater Desalination Project because future groundwater withdrawals in the region will be limited to protect the environment and ensure a sustainable resource.

Recent demand projections show that, even with conservation, the project participants will need 10-15 million gallons per day (mgd) of new drinking water by 2020. Alternatives to groundwater, like seawater desalination, must be developed to meet the public's future drinking water needs.

Using Water Wisely

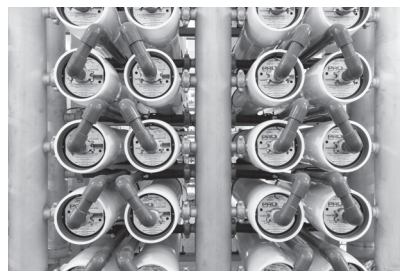
A sustainable, reliable water supply will require conservation, reclaimed water, plus new alternative water supplies in addition to efficient use of existing supplies. The project participants aim to conserve and reuse their way to the smallest alternative water supply project possible. The more water we save the less alternative supplies we'll need in the future.



A Drought-Proof Option

Seawater desalination is a drought-proof alternative water supply option that can be developed in an environmentally sound manner. Desalination is an advanced treatment process used to remove salt and other minerals from seawater to produce a high-quality drinking water.

Desalination use worldwide has increased dramatically over the past 40 years. Brackish and seawater desalination plants operating worldwide in municipal, military and industrial applications produce a combined daily capacity of more than 18 billion gallons (source: *2009-2010 International Desalination Association Yearbook*).



Many desalination plants use membranes to remove salt from seawater.

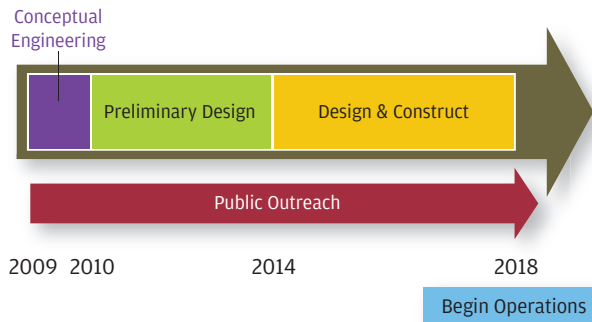
Pursuing a Land-Based Facility

In January 2010, the first phase of the Coquina Coast Seawater Desalination Project concluded with a recommendation to further evaluate a land-based seawater desalination facility that will likely be located in Flagler, St. Johns or Volusia

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County. Now in the first half of Phase 2, the project work includes conducting additional water quality analyses and environmental assessments, pilot testing of treatment processes, siting the facility and pipelines, developing a preliminary design and cost estimates for plant construction and operations, and public outreach.

Phase 2A will be completed in September 2011; phase 2B is scheduled to run from April 2012 to April 2014.



Keeping Water Affordable

Preliminary engineer's estimates put the capital cost of a 10-15 mgd plant between \$180 million and \$234 million. However, the exact cost of the facility and associated pipeline will not be known until the facility is designed.

Alternative water supplies cost more than traditional groundwater, so the project participants are investigating ways to reduce the cost to their customers. Water from the desalination plant would be blended with the project participants' other water supplies, which would lessen the rate impact to customers. Phasing construction to closely align with demand will also reduce impacts by delaying additional capital and operating expenses until the new supply is needed.

Additional co-funding from the St. Johns River Water Management District and state and federal programs would also offset costs. The St. Johns River Water Management District is currently funding up to 30 percent of the eligible project costs for Phases 1 and 2A and has also set aside some funds for construction cost sharing.



Environmental Protection

Protecting Florida's natural systems and coastal ecosystem are paramount to the project participants. That's why a number of scientific studies will be conducted in Phase 2 to assess whether seawater desalination is a suitable choice for the project participants. Those evaluations include intake and discharge considerations, energy efficiency, fishing, shrimping, endangered species and more. Desalination will be pursued only if studies show the environment will be protected.

Stay Informed

The project participants are committed to an open and inclusive public process as they investigate a seawater desalination facility. Residents can stay informed and involved by:

- Attending business meetings and/or teleconferences.
- Visiting the project web site (coquina coastdesal.org).
- Following the project on Twitter ([Twitter.com/CoquinaDesal](https://twitter.com/CoquinaDesal)).
- Attending community meetings.

For More Information

For more information, residents can also contact Richard Adams, City of Palm Coast, at (386) 986-2351, or Jerry Salsano, Taurant Consulting, at (407) 884-8800.