

# Where Does My Water Come From?

It's easy to turn on the tap without thinking "where is this water coming from?" It's harder to understand the complex system of water supply existing in the Tampa Bay region. Our region is well known by water resource managers throughout the nation for two reasons: 1) the water wars of the 1970s and 2) the construction of the largest seawater reverse osmosis (SWRO) desalination plant in North America.

The water wars resulted from rapid growth in the region and increased groundwater pumping from water supply sources in Pinellas, Hillsborough and Pasco Counties. As lakes and wetlands in these counties were impacted by these forces, officials knew alternative sources of water needed to be developed. It took many years and the transformation of the West Coast Regional Water Supply Authority (formed in 1974) to what is now Tampa Bay Water, to put an end to the wars. Tampa Bay Water developed a plan that was implemented between its six member governments: Hillsborough, Pasco and Pinellas Counties, New Port Richey, St. Petersburg and Tampa. These governments continue to work with Tampa Bay Water to plan and develop regional drinking water supplies.

As alternative surface water supply sources were developed, the region focused on sustainable supplies from the Tampa Bypass Canal, the Alafia River and the 15.5 billion gallon C.W. Bill Regional Reservoir. These supply and storage sources led to the construction of the Tampa Bay Regional Surface Water Treatment Plant to provide treatment of these surface water resources. Tampa Bay Water also diversified their water sources by later adding the Seawater Desalination Plant. With all of these water sources, how can one know where the water from their tap is coming from? [Figure 1]

Unincorporated areas and 19 of the 24 municipalities in Pinellas County, receive their water from Tampa Bay Water. The exceptions: Bellair has a local groundwater supply; Oldsmar and Tarpon Springs have brackish groundwater reverse osmosis plants; and Dunedin and Clearwater have groundwater reverse osmosis plants. Tampa Bay Water's sources vary throughout the year and current source distributions can be found online [at their website](#). The distribution is divided among groundwater, surface water and desalinated seawater. The end product is usually a blend of these sources.



Figure 1. Water Supply Sources and Locations

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Natural Resources

[www.pinellascountyextension.org](http://www.pinellascountyextension.org)

## Important Terms to Understand

**Groundwater**- water which seeps into the soil and percolates down through the different layers, ultimately reaching the Floridan Aquifer, an underground layer of limestone. Tampa Bay water utilizes 13 wellfields in Hillsborough, Pasco, and Pinellas Counties to retrieve groundwater which is then treated at one or more of the seven treatment facilities where it is disinfected before it is sent to one of the local governments or blended with one of the other supplies listed below.

**Surface Water**- also known as river water. The rivers which supply Tampa Bay Water with surface water include the Alafia River, Hillsborough River, the Tampa Bypass Canal and stored water from the C.W Bill Young Regional Reservoir.

**Desalinated Seawater**- seawater is pretreated before going through reverse osmosis. During reverse osmosis, the pretreated water is forced through a semi-permeable membrane allowing the freshwater to pass through and leaving the salts and minerals behind. The filter membrane has pores the water is forced through which are about .001 microns or about 1/100,00<sup>th</sup> the diameter of a human hair!

It is hard for many to understand how a state surrounded by water, covered with wetlands, and spotted with lakes and rivers could ever face a water supply problem, but it has happened in the past. Tampa Bay Water is working hard to protect drinking water supplies through the use of these alternative water resources. We have recovered from the water wars in large part due to these new supplies but also through residential and commercial conservation efforts which will continue to be an important part of our lives.

### Resources:

<http://www.hillsboroughwaterworks.com/water-wars/0103.html>

<http://www.tampabaywater.org/tampa-bay-water-supply-sources-management-quality.aspx>

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