



## 2013 Reclaimed Water Quality Report January 2013 to December 2013



This annual Reclaimed Water Quality Report provides information on Austin's non-potable reclaimed water. This report is not required by the Environmental Protection Agency (EPA) or Texas Commission on Environmental Quality (TCEQ) but is provided as an update on the reclaimed water system, system reliability and quality standards.

### CITY OF AUSTIN'S RECLAIMED WATER SYSTEM

Reclaimed water is highly treated wastewater effluent from Austin's wastewater treatment plants. It is usually discharged into the Colorado River, but for reclaimed water use a portion is reclaimed from the discharge, put in tanks and piped around Austin to be used for irrigation, manufacturing, cooling, toilet flushing and other non-potable uses. Austin Water began providing reclaimed water in 1974 and since that time the system has grown considerably. The current system consists of approximately 48.3 miles of reclaimed water transmission mains, 61 customers with approximately 1.35 billion gallons used in 2013. Future plans for the system consist more than 130 miles of transmission main and more than 8 billion gallons used annually. Over the next five to eight years the program will be striving to improve redundancy in the system and gain customers along the alignments either constructed or planned in a campaign called "Completing the Core".

### RECLAIMED WATER SOURCES

The reclaimed water program is regulated and authorized by TCEQ, has been reviewed by the Austin/Travis County Health and Human Services Department and is endorsed by City Council as part of its sustainability initiative. Customers of the City of Austin's Reclaimed Water Program receive their reclaimed water from one of two sources, either the Walnut Creek Wastewater Treatment Plant, which serves areas north of the Colorado River or the South Austin Region Wastewater Treatment Plant, which serves areas south of the Colorado River. Eventually the north and south areas will be connected providing a higher level of reliability and service for reclaimed water customers.

### 2013 ACHIEVEMENTS

This year the reclaimed water program completed several projects extending and improving the reclaimed water system and added several new customers. One of the highlighted projects was extending the system to the Montopolis area that provided the new Guerrero-Colorado River Park and Krieg Field Softball Complex with reclaimed water. We completed a project to serve BAE Systems with cooling water and broke ground on a project that will bring service to Smith Road near Govalle. Look for information on other additions to the reclaimed water system on our website <http://www.austintexas.gov/department/water-reclamation>

In 2013 Austin Water was honored to host Nancy Stoner, EPA's Assistant Administrator for Water, for a tour of the Utilities reclaimed facilities. When asked why she selected Austin to visit she stated that "We're very interested in promoting reused water...The city has established conservation methods that other parts of the country could emulate". The Tour included stops at South Austin Regional WWTP, Hornsby Bend Bulk Water Station, 51<sup>st</sup> Reclaimed Elevated Storage Tower and BAE Systems.



### BULK FILLING STATIONS

In order to make reclaimed water available to customers with water hauling trucks, Austin Water has constructed bulk water facilities at several locations within the Austin area. The goals behind the idea to construct reclaimed water bulk water facilities are to minimize the use of fire hydrants for non-potable needs and to make reclaimed water available to interested parties who do not have direct access to a City reclaimed water main via a reclaimed water meter. The reclaimed water from the bulk water facility may be used for non-potable uses including but not limited to: tree irrigation, dust control, construction uses, etc. The bulk water facilities are automated facilities which operate on a prepaid basis. To access the facility an account must be set up and an amount must be prepaid to the account. Currently there are 2 bulk stations in operation with one located at the Utility's Hornsby Bend facility and the other located near the intersection of Hergotz Rd and Thompson Ln. A third location is being constructed at the Walnut Creek WWTP and will be operational summer of 2014.

*Using Purple to Keep Austin Green*

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### COOLING TOWERS

Cooling towers by nature of its heat transfer process are large volume water users. Water used for cooling towers during the hot summer months can be as much as 40% of the total water used for an office building, hospital, school, manufacturing and other industrial, commercial and institutional facility. Converting a building's cooling tower to reclaimed water can drastically reduce the buildings demand of potable water. Currently Austin Water serves 4 cooling tower customers which have an average combined yearly usage of 480 MG or 38% of the total yearly reclaimed usage. Connection has been turn down by other customers due to the difference in water quality as opposed to that of potable water. The lower quality reclaimed water forces the cooling tower to run at a lower water efficiency which negatively impacts operation cost. Austin Water started a pilot project this year at the Walnut Creek WWTP to test high efficiency softening treatment that addresses the cost issue. One cooling tower customer, BAE Systems, has already converted to this new treatment technique and has seen large volume and cost reductions.



### 2013 RECLAIMED WATER ASSESSMENT

The reclaimed water provided by Austin Water in 2013 met all requirements per Austin Water's reclaimed water authorization issued by the TCEQ. The reclaimed water produced by Austin Water meets more than 90 percent of the water quality criteria for potable water. Reclaimed water is clear, odorless and is harmless to humans through incidental contact. TCEQ requires that Austin Waters reclaimed water meet four quality parameter. The table below shows these parameters and how the City's reclaimed water measured up in 2013. If you have any questions or would like to see a complete list of all test parameters please feel free to contact Dan Pedersen, PE, Reclaimed Water Program Manager at 512.972.0074 or email him at [dan.pedersen@austintexas.gov](mailto:dan.pedersen@austintexas.gov)

TCEQ Reclaimed Water Standards			
Parameter	Limit	Walnut Creek WWTP	South Austin Regional WWTP
BOD or CBOD	5 mg/l	2.25 mg/l	2.05 mg/l
Turbidity	3 NTU	1.89 NTU	1.51 NTU
Fecal Coliform (monthly average)	20 cfu per 100 ml	1.97 cfu per 100 ml	6.6 cfu per 100 ml
Fecal Coliform (not to exceed)	75 cfu per 100 ml	Not Exceeded	Not Applicable
Fecal Coliform (not to exceed)	200 cfu per 100 ml	Not Applicable	Not Exceeded
mg/l: milligrams per liter; cfu: colony forming unit; ntu: nephelometric turbidity unit; ml: milliliter			