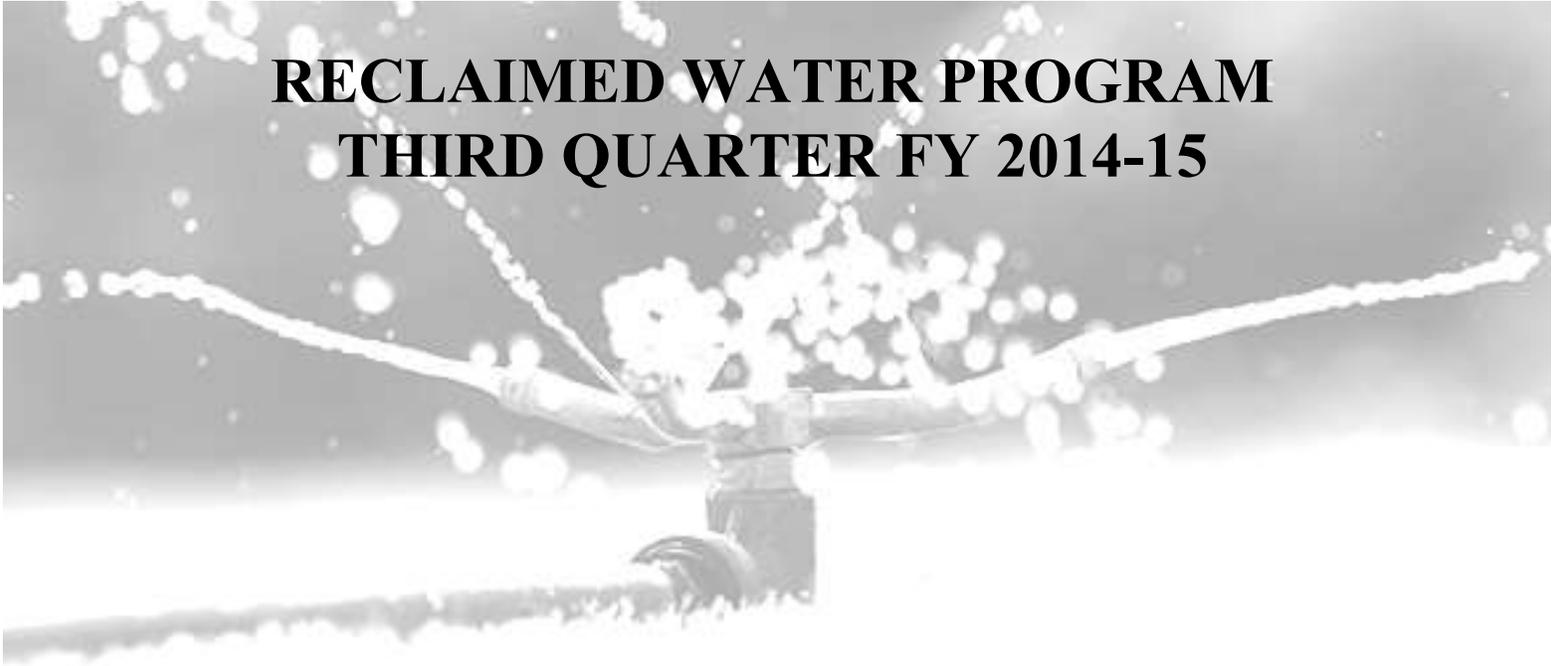




# *Austin Water Utility*

A black and white photograph of an irrigation system in a field. A central pivot point is visible, with long arms extending outwards, supported by a series of wheels. The background shows a field of crops under a bright sky with some lens flare or light artifacts.

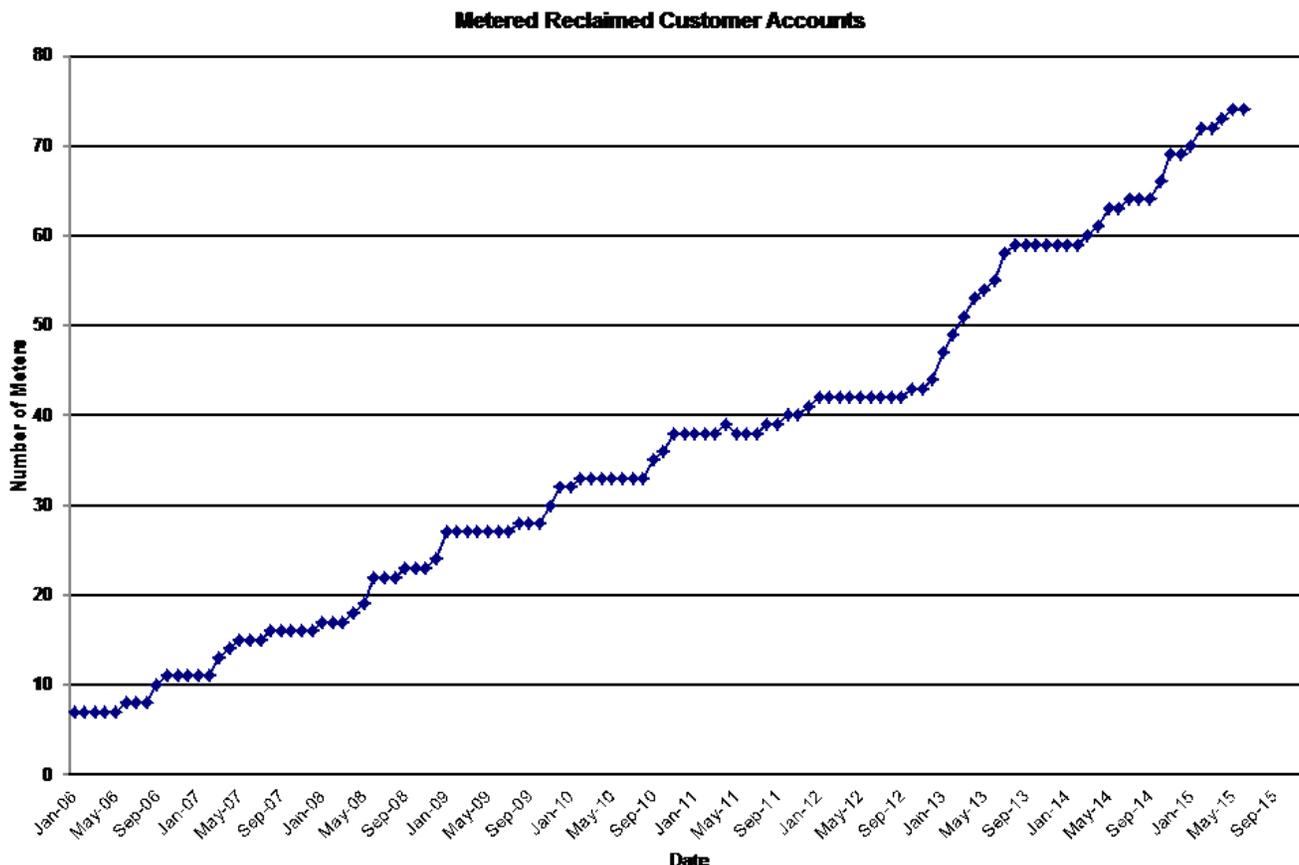
## **RECLAIMED WATER PROGRAM THIRD QUARTER FY 2014-15**

Staff Contacts: Shwetha Pandurangi, PE / Dan Pedersen, PE  
(July 20, 2015)

## RECLAIMED WATER PROGRAM – 3<sup>rd</sup> QUARTER 2014-15

### EXISTING CUSTOMERS:

- **Metered Customer Accounts** – Whittlesey1 (RW10018668) and Unifirst (RW 262132) became metered customers during the quarter. Garcia Sand & Gravel and Cornelius Byrd, Inc. became bulk fill station customers during the quarter. There are 74 active metered customers and the graph below shows metered customer growth over time.



### PROSPECTIVE CUSTOMERS:

- **Marketing** – During the quarter reclaimed staff provided marketing and technical information to Planning and Development Review Department, Jones and Carter Engineers, Bury and Partners, attendees of the ACEA Conference, Travis County Facilities Department, Travis County Commissioners, Commodore Perry Estate, Promise Land Church, Fast Park, LJA Engineering, 360 Professional Services, Freescale, University of Texas, Huston-Tillotson University, and property owners potentially affected by the implementation of a Mandatory Connection Ordinance.
- **Potential Customers** – The table below lists potential customers that staff has been in contact with regarding connection to mains completed, in design, or under construction.



## RECLAIMED WATER PROGRAM – 3<sup>rd</sup> QUARTER 2014-15

<i>Prospective Customer</i>	<i>Location</i>	<i>Uses</i>	<i>Project</i>	<i>Usage (gal/yr)</i>
<b>30 Story Office Tower</b>	2 <sup>nd</sup> & San Antonio	Irrigation, toilets	Seaholm District Mains	500,000
<b>908 Nueces Condos</b>	908 Nueces	Irrigation	Junction 420 Main	300,000
<b>ACC Rio Grande</b>	1212 Rio Grande	Irrigation, cooling, toilets	Junction 420 Main	4,500,000
<b>AE Office Park</b>	Riverside & Grove	Irrigation, toilets	Burleson Road	490,000
<b>AMD Campus</b>	2900 Ben White	Irrigation/Toilets/Cooling	Burleson Road	10,000,000
<b>Angelica</b>	1307 Smith	Laundry, irrigation	Smith Road Extension	8,000,000
<b>APAC</b>	713 Linger	Dust control	Smith Road Extension	15,000
<b>Auditorium Shores</b>	Riverside	Irrigation	Junction 420 Main	?
<b>Austin History Center</b>	401 W 9 <sup>th</sup> St.	Irrigation	Junction 420 Main	500,000
<b>Brinks, Inc.</b>	1400 Smith Road, Suite B	Irrigation	Smith Road Extension	30,000
<b>Butler Park</b>	Riverside	Irrigation, cooling	Junction 420 Main	4,000,000
<b>Capitol Grounds</b>	11 <sup>th</sup> Street	Irrigation	Capitol Complex Main	15,000,000
<b>Cobra Studios</b>	902 Gardner	Irrigation (rainwater backup)	Smith Road Extension	45,000
<b>Central Library</b>	710 W Cesar Chavez	Irrigation (rainwater backup)	Seaholm District Mains	500,000
<b>Continental Homes</b>	Grove Boulevard	Irrigation/Toilet Flushing	Burleson Road	500,000
<b>Duncan Park</b>	900 W 9 <sup>th</sup>	Irrigation	Junction 420 Main	1,000,000
<b>Eastside Memorial HS</b>	1012 Arthur Stiles	Irrigation	Smith Road Extension	2,800,000
<b>Great Streets (x2)</b>	3 <sup>rd</sup> Street, 8 <sup>th</sup> Street	Irrigation	Junction 420 Main	180,000
<b>GreenePointe Austin</b>	5901 Bolm Road	Irrigation	Smith Road Extension	100,000
<b>Governor's Mansion</b>	1010 Colorado	Irrigation	Capitol Complex Main	850,000
<b>HHS Department</b>	7201 Levander	Irrigation	Smith Road Extension	500,000
<b>Mont. Research Center</b>	2706 Montopolis	Irrigation	Burleson Road	5,000,000
<b>The Point at Ben White</b>	6934 E. Ben White	Irrigation/Toilet Flushing	Montopolis Tank	500,000
<b>RZ Communications</b>	1400 Smith Road, Suite A	Irrigation	Smith Road Extension	20,000
<b>Seaholm Power Plant</b>	Cesar Chavez & West	Irrigation (rainwater backup)	Seaholm District Mains	200,000
<b>Spancion</b>	3200 Alvin Devan	Irrigation/Manufacturing	Burleson Road	5,000,000
<b>Southern Datacom</b>	2606 Montopolis	Irrigation	Burleson Road	25,000
<b>Sheraton</b>	701 E 11 <sup>th</sup>	Irrigation, cooling, laundry	Capitol Complex Main	5,000,000
<b>Travis Co. Courthouse</b>	1000 Guadalupe	Irrigation	Capitol Complex Main	1,000,000
<b>Travis Co. Family Courthouse</b>	308 Guadalupe	Irrigation, toilets	Junction 420 Main	300,000
<b>Tokyo Electron America</b>	2400 Grove	Irrigation	Burleson Road	2,500,000
<b>Unifirst</b>	6000 Bolm	Laundry, irrigation	Smith Road Extension	5,000,000
<b>UT Chiller #3</b>	1910 San Jacinto	Cooling	UT Main	60,000,000
<b>UT Chiller #7</b>	1918 Red River	Cooling	UT Main	60,000,000
<b>UT Triangle Park</b>	2601 Dean Keaton	Irrigation	UT Main	1,500,000
<b>UT Med. Center</b>	Red River & Trinity	Irrigation (rainwater backup)	Capitol Complex Main	500,000
<b>Waller Creek Center</b>	625 E 10 <sup>th</sup>	Irrigation, cooling, toilets	Capitol Complex Main	3,500,000
<b>Waterloo Park</b>	500 E 12 <sup>th</sup>	Irrigation	Capitol Complex Main	4,000,000

### CONSTRUCTION:

- Burleson Road Pressure Conversion** – This project adds approximately 13,300 feet of reclaimed main ranging from 24” to 36” in diameter in size. The proposed mains will connect to existing pipelines at the intersection of Riverside and Grove Boulevard, and at Burleson Road near Montopolis Drive. In the upcoming quarter, the design engineer will submit the 60% plans. Almost all large water users and potential customers have been contacted for future connection sizes and locations. The alignment near the southern connection point has changed due to easement issues, resulting in some delay in the project. Staff and consultants are working through



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the process and 60% plans are expected by the middle of July.

- **Capitol Complex Main** – This project includes the construction of 8, 12, and 24-inch diameter reclaimed water mains in the downtown area. It will connect to an existing main at MLK and Red River and extend through the downtown capital complex. Potential irrigation and cooling customers include University of Texas Medical facilities and lawns, State and County facilities, and several parks. The project was advertised with bids opened on June 18<sup>th</sup>. A construction contract will be before the Water and Wastewater Commission on August 12<sup>th</sup> and before the City Council on August 20<sup>th</sup>. Construction is expected to start in October 2015.
- **Cemetery Main** – 18,000 feet of 12-inch main to serve Patterson Park, Maplewood Elementary, Oakwood Cemetery, Oakwood Cemetery Annex, Carver Museum, and the Texas State Cemetery. The main was pushed back three years because of funding issues at Public Works. Reclaimed staff is researching the affects, if any, of reclaimed water on headstones by placing samples provided by the Texas State Cemetery in irrigated areas of the 51<sup>st</sup> Street Tower site.
- **Junction 420 Main** – This project includes the construction of 8, 12 and 24-inch reclaimed water mains in the downtown area. It will extend from the Capitol Complex Main southward along San Antonio, connect to the Seaholm Main and then cross Lady Bird Lake. It will supply reclaimed water to potential irrigation, toilet flushing and cooling customers in the southwest portion of downtown and connect customers on the Seaholm Main project. A section of main at San Antonio and 3<sup>rd</sup> Street is under construction with the 3<sup>rd</sup> Street Great Streets Project, and the rest of the main expected to be advertised in September 2015.
- **Montopolis Tank** – The Montopolis Tank is a 4 MG ground storage tank approximately 130 feet in diameter and 45 feet tall, with an associated pump station. It will be used to store reclaimed water to meet peak demands in the Central Low Service Area and to pump water to customers in the Central Service Area. The project also marks the first reclaimed water tank to be made of concrete, rather than steel. Design engineers have submitted the 100% plans are working on the final bid set to be turned in mid-July 2015 with a December 2015 target for advertisement.
- **Onion Creek Phase 1** – This is a 16” main running from the Clay/Kizer Golf Course to the Goodnight Ranch Development. Reclaimed reviewed the preliminary routing and will request a design engineer from a Public Works rotation list in August 2015.
- **Route 973 Relocation** – TXDOT is widening FM 973 between Hornsby Bend and the Travis County Correctional Facility. A booster pump station and several reclaimed mains conflict with the proposed FM 973 widening, which will require that the mains be abandoned and replaced. The widening has been split into FM 973 north of Hwy 71 and FM 973 south of Hwy 71. FM 973 north of Hwy 71 is under construction, and a segment of an existing 24” main near Hornsby Bend was relocated. FM 973 south of Hwy 71 is also under construction. Reclaimed staff reviewed submittals for the replacement pump station, and arranged for two service lines to be installed for a Travis County Precinct #4 Building expansion.
- **Seaholm Mains** – This project builds reclaimed water demand in the downtown area while the Seaholm District is being redeveloped. Committed customers include the Central Library, a 30-story office tower in the Green WTP Redevelopment, and the Seaholm great lawn. A portion of 2<sup>nd</sup> Street, with a reclaimed main, adjacent the library is under construction with 90% of the work completed. The remainder will be completed with the Library. The reclaimed main in the 2<sup>nd</sup> Street Bridge was installed and tested during the quarter. The easternmost portion of 2<sup>nd</sup> Street, and associated reclaimed main is complete.



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- **Smith Road Extension** – The project serves the Govalle area in and around Bolm Road with reclaimed water for irrigation, manufacturing, and cooling. The main is active, three customers (Whole Foods, Animal Shelter and Unifirst) have connected, and several other businesses and property owners are working with reclaimed staff to connect. Eastside Memorial and Cobra Studio will likely connect in the next 2 months. Other notable potential customers include Angelica, Animal Shelter expanded use, Unifirst for internal use and GreenePointe Austin Homes.
- **Walnut Tank Replacement and High Service Pump Station Expansion** – The contractor completed punch list items and training. O&M Manuals and record drawings are expected in July 2015.

### RECLAIMED PROGRAM ACTIVITY:

- **Bulk Water Fill Stations** – During the quarter, two new bulk fill customers were added, and the Walnut station saw its first customer. Several municipalities have expressed interest in constructing similar stations. See picture showing the tour of a station by a consulting engineer. Whittlesey Landscaping, a previous bulk fill station customer, liked the stations so much that they built a bulk fill station on a reclaimed main on their property for their own use. The Hornsby Station continued to work flawlessly as a result of improvements to its solar panels made in previous quarters. Water+, the software interface between the stations and Austin Water staff, was updated to a newer version, offering additional features and easier access to information.



Quarterly water use at the bulk fill stations is listed in the table below. The decreased in use is primarily due to wet weather in May and June. Usage at the Hergotz Station will decline over the next year because that station’s largest customer (Whittlesey Landscaping) built their own bulk fill station.

<i>Bulk Fill Station</i>	<i>3QFY14-15 Use (gal)</i>	<i>3QFY13-14 Use (gal)</i>
<b>Hergotz</b>	28,345	429,759
<b>Hornsby</b>	265,035	56,600
<b>PARD</b>	118,400	325,100
<b>Walnut</b>	8,564	3,189
<b>Total</b>	<b>420,344</b>	<b>814,648</b>

- **Mandatory Connections** – In August 2012 the City Council approved a Water Conservation Ordinance, which contained a provision for the mandatory connection of new commercial development within 250 feet of a reclaimed water main. Implementation of the ordinance was made effective for site plans submitted on or after May 1, 2015.
- **Watershed Protection Ordinance** – The Watershed Protection Department interprets Ordinance 25-8-361 prohibiting wastewater treatment by land application in the 100-year flood plain and critical water quality protection zone to include reclaimed water. Austin Water disagrees. The two departments are working to resolve the disagreement. A review of preexisting stream water quality data was inconclusive. Initial monitoring occurred in October 2014 and targeted monitoring



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scheduled for the 2015 irrigation season was delayed by the wet spring weather. Supplemental monitoring of Tannehill Branch showed much higher levels of nitrates upstream of the irrigation site than in the initial monitoring. Pending the outcome of the water quality study, Austin Water agreed to not pursue the connection of new reclaimed irrigation customers in the critical water quality zone, with the exception of BAE Systems, the Central Library and the Seaholm development. These customers were already well along in the connection process and Austin Water had already spent CIP funding to connect them.

### OTHER:

- **Clay/Kizer Pond Linings** – In a November 2013 inspection TCEQ staff requested certifications of pond linings at the Clay/Kizer Golf Course. There are ten ponds at the Clay/Kizer Golf Courses. Construction on the Jimmy Clay ponds started in 1972 and would have been complete by the time the course opened in 1974. The ponds on the Roy Kizer Golf Course were constructed in 1993. Reclaimed staff has been unable to find certification documents from 41 and 18 years ago.
- **Erosion at Krieg Fields** – Wet weather in May caused erosion in Country Club Creek to continue to move up stream. The erosion undermined a pedestrian bridge at Krieg Fields and exposed the top of a 16” reclaimed main. Austin Water field crews are making arrangements to lower the main in the affected area. There is the possibility of reimbursement from FEMA for the damage.
- **Jimmy Clay Booster Pump Station** – At a regular site visit, staff noticed substantial water leak from the booster pump station. The leak occurred at a diaphragm on a pressure switch, located inside of the electrical housing. PMT Services, a third party vendor, who regularly service the station was notified and the pressure switch was replaced. The station was back in service with 24 hours.
- **Monitoring** – There were no water quality exceedances during the quarter.
- **Staffing** – A Graduate Engineer in the reclaimed program resigned his position and it has been advertised.
- **Usage** – Quarterly reclaimed water use is listed in the table below. The increase in use can be traced to the month of April before the spate of wet weather occurred.

<i>Time Period</i>	<i>Use</i>	<i>As a Percent of WW Treated</i>
<b>3rd Quarter FY14-15</b>	298.06 MG	2.62%
<b>3rd Quarter FY13-14</b>	284.84 MG	3.22%

