

**City of Austin and LCRA Water
Partnership**

Water Conservation Strategies Report

December 2008

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1.0 Introduction

The Settlement Agreement executed in June 2007 established a Water Partnership between the City of Austin and Lower Colorado River Authority (LCRA), whose primary purpose is to collaboratively evaluate and implement strategies to optimize water supplies to meet the long-term water needs of all of their customers and the environment. In November 2007, the parties executed the Supplemental Water Supply Agreement (SWSA), which further defined the role of the Water Partnership in evaluating water supply strategies. Section 3.15.1 of the SWSA specifically requires the City of Austin and LCRA to report to their governing bodies by December 31, 2008, concerning recommendations regarding a firm commitment to water conservation strategies.

The intent of this document is to provide practical conservation strategies for the Partnership while meeting the requirement set forth in the SWSA section 3.15.1. As required by Section 3.15.1, this report includes strategies that take into consideration the following:

- Existing water conservation goals of each organization;
- The Texas Water Development Board's (TWDB) Water Conservation Best Management Practices Guide or other similar guidelines; and
- Goals that can be measured in Gallons Per Capita Per Day (GPCD) or other appropriate metric.

In addition, the Water Partnership has leveraged existing mechanisms and information from ongoing efforts to collect and assess relevant conservation information, to the maximum extent possible.

1.1 City of Austin and LCRA Conservation Goals

Integrating water conservation into long-term water supply planning is becoming increasingly important for many water suppliers and utilities throughout Texas. The City and LCRA have long been recognized for their individual conservation efforts which include public outreach, regulation, and incentive programs such as rebates, device distribution and audits.

City of Austin

Water conservation is a priority for LCRA's and the City's near and long-term water supply resource planning and management. The City's current ten year conservation goal, established by the Austin City Council in 2007, is to reduce peak day municipal usage by one percent per year for 10 years. The City's long-term conservation goal is to ensure that the City does not need additional firm municipal water supply prior to 2050 above that provided under its 1999 Agreement with the LCRA.

LCRA

According to its 2005 Water Conservation Plan, LCRA's municipal wholesale raw water supply goal is to decrease per capita water use by 5 percent, or about 3,000 acre-feet by

the year 2015. The 10-year water savings goal for the LCRA Irrigation Divisions is about 6,500 acre-feet per year.

Texas Water Conservation Advisory Council

The City and LCRA are currently in the process of updating their Water Conservation Plans, which must be submitted to the Texas Commission on Environmental Quality (TCEQ) by May 1, 2009. One requirement of the TCEQ regulations (Texas Administrative Code, Title 30, Chapter 288, Subchapter A, Water Conservation Plans) calls for quantified 5 and 10 year targets for water savings in gallons per capita per day (GPCD) for municipal water use. Although GPCD is a metric that has been used to track conservation progress in Texas, the metric is not well-defined and there has not been a standard methodology used by water suppliers to measure GPCD within their service boundaries. Furthermore, part of the legislative mandate of the recently created Texas Water Conservation Advisory Council is to develop methods to monitor targets and goal guidelines for consideration of the TWDB and TCEQ. The Texas Water Conservation Advisory Council's first progress report to the 81st Legislature is available at <http://www.savetexaswater.org>. The Council's efforts will aid both the City and LCRA in tracking their progress in reaching their current goals and setting conservation goals in the future.

1.2 Partnership Goals

According to the SWSA, section 3.15.1.3, the City and LCRA have agreed to actively support each others' independent efforts to further encourage water conservation among their customers. Some of the collaborative goals of the Partnership as they relate to water conservation efforts are to:

- support one another's organizations through education, outreach, research, and program evaluation;
- combine resources and expertise to deliver cost-effective programs and consistent messages; and
- advocate on behalf of one another's conservation efforts.

2.0 City of Austin Program

2.1 Summary of Water Supply and Use

The City holds permitted municipal water rights granted by the State of Texas to divert a maximum of 292,703 acre-feet per year from the Colorado River for municipal use. These water rights are run-of-river rights in the State's priority water rights system, meaning that the City is permitted to divert water under these rights if the water is available for diversion after other more senior water rights are first fulfilled. As such, there are conditions under which this water is not available to be relied upon by the City of Austin. Therefore, the City has firm water supply agreements with the LCRA to ensure that Austin's water supply is firm and reliable under a wide range of hydrologic conditions, including droughts.

Most recently, in 2007, the City entered into the SWSA with LCRA to jointly plan for an additional 250,000 acre-feet per year of firm water for Austin's future needs above those addressed by existing water sale agreements between LCRA and Austin. This additional amount of water supply is projected to be sufficient to meet Austin's needs at least through the year 2100. Figure 1 illustrates the amount of the City's municipal firm supply and the current and projected municipal demand for that water through 2060.

The 1999 agreement between LCRA and the City provides 325,000 acre-feet per year of firm municipal water supply, which is roughly double the City's current demand level of approximately 160,000 acre-feet per year. Austin projects this firm supply will be sufficient to meet municipal demand through approximately 2046 based on current usage trends, including historical levels of conservation and reuse. However, it is the City's goal to extend this quantity of firm water supply to be sufficient through at least 2050 (as seen in Figure 1) through implementation of the City Council's recently adopted water conservation and water reuse program enhancements. In addition, once the City's annual demand for water reaches 201,000 acre-feet per year for two consecutive years, the City must pay LCRA for water use amounts above 150,000 acre-feet per year. Therefore, the City's water conservation program is striving to reduce demand sufficient to extend the 201,000 acre-feet trigger to at least 2021.

Austin Annual Municipal Firm Water Supply and Demand Projections

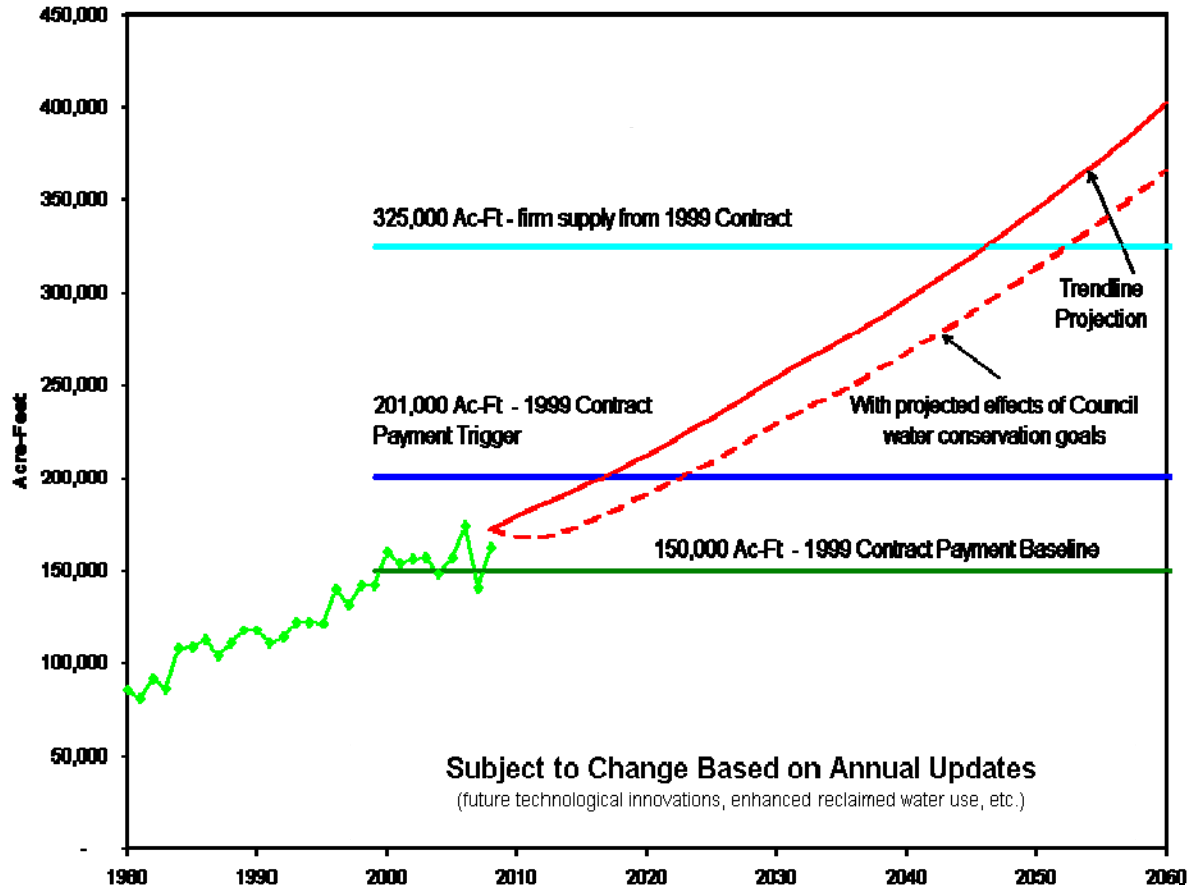


Figure 1. Water demand projection, City of Austin, Austin Water Utility, 2008

The City of Austin currently serves approximately 200,000 connections. In 2008, the City served an approximate population of 796,000 and a wholesale customer population of 54,000, for a total service population of 850,000. Water is drawn from the Colorado River (on Lake Austin) into two water treatment plants (WTPs) with a combined capacity to treat and distribute 285 million gallons per day (MGD).

The need for additional water plant treatment capacity is, in large part, determined by the amount of water projected to be demanded by customers during the peak usage days of the year. Since, during the peak usage days of the summer, approximately 50 percent of water use is for irrigation, aggressive outdoor conservation measures and enhanced reclaimed water use for irrigation purposes have been drivers for many of the City's water conservation efforts. The City Council was able to capitalize on Austin's water conservation efforts to delay the construction of the additional water treatment plant, WTP4, by 2 years, at a significant cost savings to the City.

2.2 City of Austin Conservation Program History

In its 25-year history, the City's Water Conservation Program has continually evolved in response to changing customer needs, emerging technologies, political concerns, and available resources. Thanks in part to aggressive conservation measures, total water pumpage increased only 51 percent between 1984 and 2008, despite an 82 percent growth in service area population. Conservation is now one of the strategies to meet the City's long-term water needs, and combined with a reclaimed water program, is expected to reduce the City's demand by 50,000 acre-feet per year by 2040.

The City has learned that some programs may not realize the level of savings projected, and that some programs are popular regardless of savings potential. What works well for one water provider may not work for another, which makes it necessary to plan new initiatives carefully and continue to evaluate results and tailor programs as needed to achieve measurable reductions in water demand.

2.3 City of Austin Water Conservation Strategies

1. Irrigation and Landscape Programs. A free irrigation audit program was established in the 1980s to combat the dramatic spike in water demand during the summer months due to landscape irrigation. Commercial, multifamily or residential customers may request an evaluation, and receive rebates for installing recommended upgrades, such as pressure reducing valves or new controllers. The program has remained relatively constant over the years, though a focus on the City's carbon footprint and staff costs per gallon saved has led management to reevaluate whether audits should be limited to the highest water users. The City uses a conservative estimate of 100 gallons per day saved for each audit, but is currently studying ways to better capture actual savings, which can vary widely.

Over the past 25 years, the City has used education, incentives, and regulation to encourage water-wise landscaping. Conservation staff was active in early

educational efforts with the Xeriscape Advisory Board, and in the cross-departmental Green Garden Program. The conservation program also offered incentives for landscape conversion that met with mixed success; program participants tended to be “hobby” gardeners with low water use and therefore low savings potential. When follow-up investigations found that many owners continued to water these drought-tolerant plants as if they were thirsty turfgrass, the program was altered to focus on trees and shrubs, and to require pre-approval of a design plan. In an attempt to boost savings potential, the program also instituted a water-use threshold and monitored post-installation water use before rebates were issued. The resulting drop in participation led to the program’s eventual cancellation.

The City also passed an ordinance requiring native plants in new commercial landscapes and establishing standards for irrigation systems. Originally a compromise with an existing beautification ordinance, the ordinance contained some provisions that conflicted with water-wise management practices, such as requiring irrigation systems and raised islands in parking lots. Stricter design standards and permitting requirements for commercial and residential irrigation systems were later included in revisions to the plumbing code.

2. Rebate Programs. The City of Austin offers rebates on efficient toilets and washing machines, in addition to rebates on certain water-saving equipment for commercial businesses. Rebate amounts have fluctuated with the availability of incentives from manufacturers and energy partners, and qualifying models are constantly evaluated in light of emerging technologies and federal standards. Rebates for 1.6 gallon toilets were phased out as High Efficiency Toilets (HETs) gained acceptance in the marketplace, and the City is evaluating whether the market for high-efficiency clothes washers has transformed to the point that the WashWise rebate is no longer needed.
3. Plumbing Fixture Distributions. An early water conservation program distributed more than 52,000 toilet dams and 37,000 showerheads between 1984 and 1990, but was discontinued when savings from the toilet dams were deemed unreliable. The City passed plumbing code amendments in 1983 requiring 3.5 gallon per flush (gpf) toilets for new commercial and multifamily properties, and in 1991 mandated that all new toilets flush at 1.6 gallons (predating state and federal legislation).

In 1994, the City started offering free toilets to low-income customers, opening the program to all residential customers in 1996 and multifamily and commercial customers in 1998. In 1999, the City added a \$30 rebate to defray installation costs. In another example of the constant need to reevaluate and revise programs, the incentive amount doubled to \$60 in 2008, the same year that the City began distributing 1.28 gallon per flush HETs. Since 1994, more than 68,000 toilets have been distributed through the free toilet programs, for an estimated savings in excess of 1.38 MGD. The distribution of free showerheads and faucet aerators

along with the toilets has added another 412,000 GPD in estimated peak-day savings.

4. Commercial and Industrial Incentives. Many area manufacturers use water in the course of their business, but are reluctant to purchase expensive equipment that could reduce their water demand. To help shorten the pay back period for such upgrades, the City began offering incentives in 1996 to allow up to \$40,000 per project based on water savings. In 2008, that cap was increased to \$100,000; manufacturers such as Motorola/Freescale, AMD and Samsung have participated in the program, saving the utility more than 2.5 million gallons per peak day. For smaller businesses, the City offers rebates for replacing garbage grinders, water-cooled ice machines and dental vacuum pumps with waterless equipment.
5. Rainwater Harvesting. The City first offered rebates for rainwater harvesting in 2000, a \$30 rebate for purchasing approved rain barrels, and a rebate of up to \$500 for larger systems depending on the storage capacity and cost. In April 2001, the City decided to purchase barrels by the truckload to sell to customers at a reduced price. Demand has continued to increase despite rising prices, and the program has sold more than 12,000 barrels since its inception. While water savings from rain barrels are marginal compared to other programs, the program has been an effective marketing tool and provides an opportunity to introduce customers to other programs offered by the City.
6. Conservation Pricing. The City employs a tiered rate structure for residential customers that charges more per gallon for water use above certain thresholds as a means of encouraging conservation. A cost-of-service study currently in progress will consider adding a fifth tier for the highest residential water users. Commercial and multifamily customers are currently on a block rate structure that provides little financial incentive for conservation.
7. Outreach and Education. Customer communication and awareness are longstanding challenges for the City's conservation program. Efforts have included utility bill inserts; radio, television and print advertising; billboards and bus ads; and direct mail. In March 2004, the City began the WaterWise electronic newsletter as a means to communicate more regularly with customers; readership has grown from an initial 3,400 subscribers to nearly 30,000. The newsletter provides a way to track customer interests and participation for future targeted mailings, and offers a way to spread the word about new initiatives. In 2008 marketing efforts for conservation moved away from traditional print ads and into on-line advertising. As well, marketing efforts are moving from passive marketing to active marketing in an attempt to engage citizens in discussions and activities relating to conservation in more meaningful, results-driven ways.

2.4 City of Austin Future Conservation Goals and Efforts

The City retained Alan Plummer Associates, Inc. to study its water conservation programs in 2005. The study compared Austin's water conservation programs to those of the San Antonio Water System, Dallas Water Utilities, and El Paso Water Utilities. The study found that the City achieved a 13 percent reduction in peak day per capita water use between 1984 and 2004.

Austin City Council initiated the Austin Water Conservation Task Force in 2006 to examine ways to increase conservation efforts to extend the water supply and delay the construction of WTP4. The Task Force recommended a series of improvements with an estimated peak day demand savings, over a 10-year period, of 32 MGD. Many of these improvements, including mandatory summer watering restrictions and requirements for new irrigation systems, have already been implemented. Others are in the process of implementation or evaluation, including mandatory toilet replacements and expanded efforts to market and use reclaimed water.

Each of the City's water conservation efforts has addressed distinct problems using different methods: monetary incentives, equipment giveaways, subsidized sales, plumbing code changes, ordinance enforcement, and new state and federal laws. The efforts have been promoted and enforced with the partnership and cooperation of the Utility, the building code enforcement department, and energy companies. As would be expected, these tactics have met with differing degrees of success. Combined, however, the water conservation efforts in the City have contributed to a substantial reduction in per-capita water use.

The City of Austin's Water Conservation Program is as comprehensive as it is today because of its 25-year history of trial, error, revision and evolution. The City continues to look for new tools, new methods of saving water, and new partners that can help further its goals. It is hoped that the lessons learned from this long-running program will be equally helpful to communities beginning to address water supply issues and to those looking for ways to expand current water conservation efforts. Additionally, the City's water conservation division is committed to being part of a regional effort that sends the positive message to citizens that everyone is in this together for the mutual benefit of all.

3.0 LCRA Water Conservation Program

3.1 Summary of Water Supply and Use

LCRA provides water from its water rights in the Colorado River for domestic, municipal, industrial, irrigation (including agricultural and other irrigation), environmental, and other purposes. Surface water supplies are a combination of the natural flow of the Colorado and releases of stored water from the Highland Lakes. LCRA provides an interruptible water supply to farmers in the LCRA-owned Gulf Coast, Lakeside and the Garwood Irrigation Divisions, as well as Pierce Ranch.

As of December 2008, LCRA had 202 firm water contracts. According to these contracts, LCRA has provided or reserved firm water for 64 municipal wholesale raw water customers and eight LCRA treated water utilities, serving an estimated population of more than 200,000, not including the City of Austin. LCRA also has firm water contracts with 53 irrigation and recreation customers (including golf courses), 14 industrial use customers, which includes three LCRA power plants, and 63 domestic and other water users. Figure 2 illustrates the firm and interruptible water use breakdown by customer classes in the LCRA water service area.

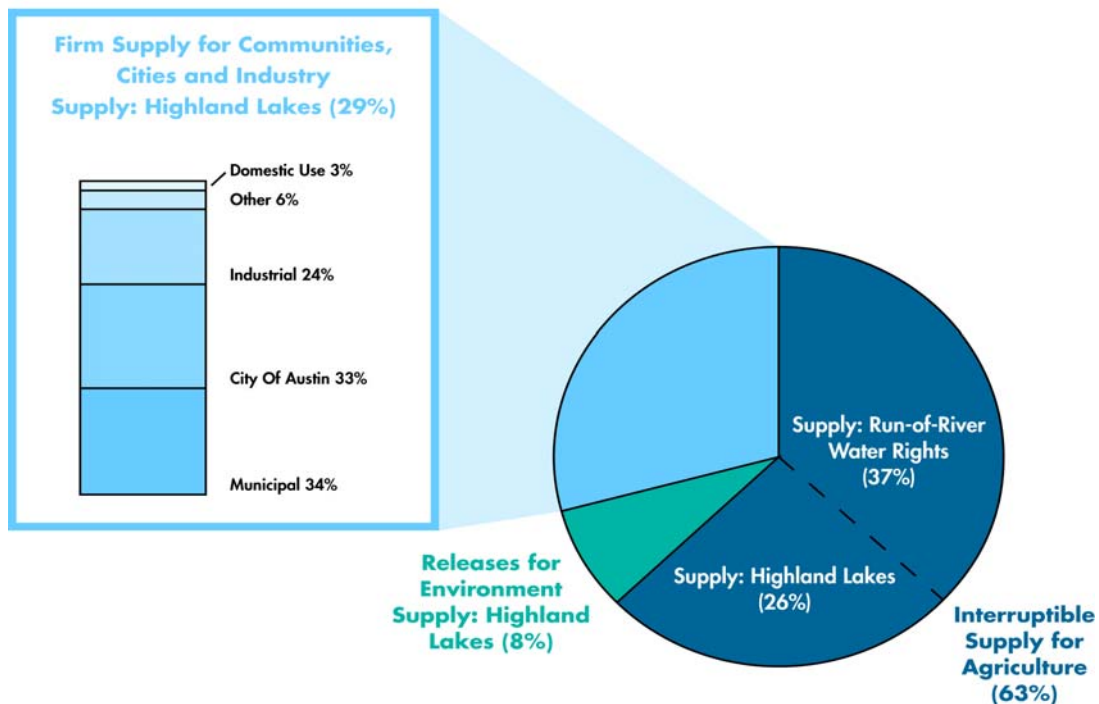


Figure 2. 2006 LCRA Water Supply

Presently, available surface water supplies are somewhat greater than total municipal, industrial, irrigation, and bay and estuary water demands. However, as municipal and

industrial demands increase, increasing water shortage for irrigation during severe droughts is expected.

3.2 LCRA Conservation Program History

As the largest user of water from the lower Colorado River system, irrigated agriculture has provided one of the best opportunities for LCRA to reduce the overall water demand through conservation programs. Beginning in 1986, the LCRA initiated a major program to increase irrigation water use efficiency in rice irrigation systems. Between 1989 and 1997, the introduction of volumetric pricing and canal rehabilitation are estimated to have saved approximately 13 percent or about 41,500 acre-feet annually, of the projected water use that would have occurred without conservation practices in place.

LCRA began a municipal water conservation program in the late 1980s by offering conservation planning and program assistance to its wholesale municipal water customers, coordinating plumbing retrofit programs, and implement conservation planning requirements for firm raw water customers. LCRA developed the Major Rivers fourth grade curriculum in 1988 and has now reached more than 1 million school children in Texas through a partnership with the Texas Water Development Board.

3.3 Agricultural Water Conservation Strategies

1. HB 1437 Agricultural Water Conservation Program. LCRA provides funds for the development of water resources or other water use strategies to replace or offset the amount of surface water transferred to Williamson County. A grant program was initiated in 2006 that helps finance agricultural water conservation strategies both for structural improvements within the LCRA irrigation divisions and for grants to agriculture producers. One of the main priorities on the list of conservation strategies to implement has been precision laser land leveling. Over the past three years, LCRA has provided 30 percent of the costs to the farmers for the implementation of this conservation measure on nearly 12,361 acres of land, with an estimated water savings of 9,271 acre-feet (3,090 acft/yr). In addition to laser-leveling, there is a five-year implementation plan underway as well as a conservation savings verification program.
2. Volumetric Measurement. By making improvements to the water delivery system such as structure standardization and the installation of electronic measurement devices, LCRA was able to successfully implement a volumetric pricing and billing system for two of the three irrigation divisions. LCRA is currently exploring the availability of federal grants to assist with the implementation of volumetric pricing in the remaining irrigation division.
3. Water Loss Control Program. LCRA has completed a project to minimize water loss from lock structures in the Gulf Coast Irrigation Division. From 2005 to 2007, this project saved 232 acre-feet of water that would otherwise be lost downstream during rain events. Retaining this water also reduced power

consumption, resulting in an estimated \$15,000 cost savings over the three year period. Annual maintenance such as limited vegetation control reduces water loss in all three irrigation divisions.

LCRA staff also is developing a five-year plan for conservation in the LCRA Irrigation Divisions that includes a continuation of the HB 1437 programs but looks at other options and funding for water conservation. LCRA staff will present municipal, industrial and agricultural water conservation recommendations to the LCRA Board in early 2009.

3.4 Wholesale Water Conservation Strategies

1. Water Conservation Plan requirement for Raw Water Customers. LCRA has required water conservation plans for all new and amended contracts since 1989. Plan requirements for municipal wholesale customers include universal metering, meter repair and replacement program, leak detection and repair, education and public information, and 5 and 10 year conservation goals.
2. Water IQ water awareness and conservation campaign. LCRA began implementing the Water IQ program in Central Texas in 2006. The program is focused on changing attitudes and behaviors about water use and aimed at people who use the most water. The campaign uses a diverse set of tools to reach the audiences with water-saving tips and information, including: television, radio and print ads; billboards; electronic advertising; and community outreach with key audiences.

LCRA dedicated nearly \$500,000 in the fall of 2006 through the summer of 2007, about \$370,000 in 2008 and plans to spend about \$250,000 for the 2009 season. The City of Austin partners on the program and has spent about \$100,000 and plans to spend about \$675,000 over the next three years.

3. Technical assistance with program or plan development. Since 2004, LCRA staff has worked with ten new developments to include the recommended conservation landscape measures in their deed restrictions. These measures include irrigation efficiency standards, minimum soil depth requirements, use of native and adapted plants, offering a conservation landscape design option for homes, and limiting irrigated landscape to 2.5 times the footprint of the home.
4. Amendment to LCRA Water Contract Rules. In April 2007, the water contract rules were amended to clarify that LCRA will determine the reasonableness of the quantity of any raw water contract request. The reasonableness of the quantity requested is evaluated based on many things, including the applicant's water conservation plan, delivery or system losses and other factors. Agency and industry standards are used in LCRA's assessment, including, but not limited to, the TWDB Water Conservation Task Force Best Management Practices Guidebook. To the extent the applicant requests a water supply based on standards other than those commonly used, the applicant must submit a written

justification describing the reasons these standards were not employed and how the water supply needs were calculated.

3.5 LCRA Water Utility Conservation Strategies

As of December 1, 2008, LCRA operates and owns 19 retail potable water systems, for a total of approximately 8,300 connections. West Travis County is the largest water system, serving approximately 4,350 retail connections and five wholesale customers.

Due to the varying demands of the population served and the condition of the particular system, conservation priorities vary from system to system. For example, leak detection and repair and meter replacement programs are more appropriate in systems with high water loss, while landscape irrigation audits are more effective in systems with newer, larger properties.

The main focus for water conservation efforts in LCRA's retail water systems is in the West Travis County Regional (WTC) water system, due to its high rate of growth and high customer water use.

Strategies:

1. Water Conservation rates. LCRA has focused on reducing water use by structuring its retail rates so that the more water customers use, the higher per unit cost they pay.
2. Landscape irrigation audits. LCRA offers free irrigation audits to all retail water customers; with the focus on West Travis County and Glenlake utility system high use/high bill complaint customers.
3. Hill Country Landscape Option Program. The Hill Country Landscape Option (HCLO) Program emphasizes four major components that increase landscape sustainability: efficient irrigation, adequate quantity of high quality topsoil, native and adapted plant selection, and proper plant placement. The program also emphasizes following a seasonal watering schedule that is appropriate for the landscape. The program includes printed materials, providing articles to homeowner association (HOA) newsletters, speaking at HOA and neighborhood events, providing specifications to builders, developers and the landscape industry, and providing signage to selected landscapes that meet the HCLO specifications. While the program is focused in western Travis County and Hays County, LCRA staff gives seminars throughout the Hill Country.
4. Conservation landscape deed restrictions. As part of utility service agreements, particularly with subdivisions being served by the LCRA Highway 290 water line and the Hamilton Pool Road water line, subdivisions must include specific conservation landscape deed restrictions. To date, five developments have incorporated the landscape deed restrictions.

5. Mandatory landscape water schedule for the West Travis County Service Area. In the spring of 2008, the LCRA Board of Directors established a business goal of implementing aggressive water conservation in its West Travis County Regional Water System service area. In May 2008, the Board adopted a rule requiring WTC end-users to follow a mandatory water schedule that limits outdoor landscape irrigation to no more than twice weekly. Residential and commercial customers were allocated certain days of the week and cannot irrigate between the hours of 10 a.m. and 7 p.m., except with a hand-held hose. Preliminary results show that implementing this measure decreased peak day water demand by between 0.5 and 1.0 million gallons per day (mgd), out of a total water treatment plant capacity of 11 mgd.

3.6 LCRA Future Water Conservation Goals and Efforts

In the spring of 2008, LCRA also created a Water Conservation Task Force to provide guidance and input on firm water conservation strategies to include in the LCRA 2009 water conservation plan. The task force included a diverse group of stakeholders representing LCRA raw water customers, lakeside business interests, developers and builders, environmental interests, irrigation and landscapes businesses and regional water planners.

In addition, LCRA researched best practices of successful wholesale water conservation programs around the country. LCRA staff sought input from its firm, raw water customers at a customer meeting in November.

Based on results of the research and considering input from stakeholders and customers, LCRA staff will be proposing a comprehensive strategic municipal water conservation plan. As found in the benchmarking study, the most successful conservation programs use a multi-faceted approach that includes education, incentives and rules. This plan includes these three components, plus program research and support.

4.0 LCRA and City of Austin Future Partnership Opportunities

By supporting one another's organizations not only through education and outreach, but also through conservation-related research and program evaluation, the City and LCRA will work to deliver consistent, cost-effective programs and messages throughout their water supply service areas. The following is a brief summary of a few of those collaborative opportunities the Partnership could pursue.

4.1 Continued Water IQ and other outreach efforts

Water conservation information programs can be costly and consumers may become confused hearing mixed messages from water suppliers. The 2008 collaboration between the City of Austin, LCRA, and City of Cedar Park on the "Water IQ: Know your Water" campaign is demonstrative of the kind of partnerships that can be effective on a regional level. By pooling resources and having consensus on the outdoor water efficiency campaign, the three entities were able to transmit a valuable regional message that reached a broad range of customers throughout the 10-county area.

4.2 Information sharing and collaboration

Having consensus in programming and policy recommendations has already had a positive impact throughout the LCRA and City of Austin service areas. With both LCRA and Austin implementing a twice-a-week watering schedule, the City of Austin and LCRA were able to collaborate on joint marketing efforts over the summer of 2008. This resulted in less confusion for customers, as well as significant public buy-in from customers due to the consistent policy recommendation by two of the biggest water suppliers in Central Texas.

As LCRA moves forward in implementing incentive-based conservation programs, it aims to model many of its programs on what the City has already established. This would facilitate regional marketing efforts and make it easier for many of the LCRA and City customers who are unaware of what services apply specifically to them.

The City and LCRA could potentially pool resources to host joint workshops for key water users to complement programs and rules, such as workshops on irrigation standards and landscaping, green plumber certification courses, and continuing education courses for licensed irrigators.

4.3 Bulk purchase of conservation equipment

By coming together to leverage the purchase of bulk conservation equipment such as toilets, rain barrels, and educational materials, the City and LCRA could benefit financially from the advantage of collective purchasing power.

4.4 Development for consistent metrics for tracking and measuring water savings

The Water Conservation Implementation Task Force, which was created by the 78th Texas Legislature, submitted a report to the Texas Legislature in 2004 that recommended a minimum annual reduction of one percent in total GPCD based upon a five-year rolling average until such time as the entity achieves a total GPCD of 140 or less. This annual reduction goal, however, is very difficult for water suppliers since there is not a standard methodology used to measure GPCD. Furthermore, due to the many variables involved in the total volume of water used in water systems, a total GPCD value should not be used for comparisons between two very different entities such as the City of Austin and LCRA, given the significant differences between the two systems.

With the passage of Senate Bill 3 and House Bill 4 by the 80th Texas Legislature, the TWDB was directed to appoint members to a newly created Water Conservation Advisory Council (Council) that was tasked with looking at a number of statewide conservation issues. As one of its priorities, the Council believes that meaningful metrics must be developed to set a solid foundation on which to build a water conservation program and measure implementation success.

These metrics are not in place today for water conservation at the state, local or regional level. LCRA and the City will support the Council in its efforts to develop methodologies, metrics and standards for water conservation implementation, measurement, and reporting, as well as specific guidelines for determining how GPCD should be calculated and direction for it to be applied to population-dependent water use.

4.5 Research and policy collaboration

The mutual benefits of sharing conservation related research efforts between the City and LCRA could assist both entities in shaping future conservation policy or evaluating current practices. Some examples include:

- analyzing the water savings impact of requiring meters for irrigation separate from other water use;
- studying potential landscape and irrigation system retrofit rebates to include smart controllers (controllers that automatically adjust irrigation run times in response to environmental changes);
- implementing and evaluating a pilot program for smart controllers;
- collaborating on soil depth and soil quality recommendations for new construction; and
- evaluating the short and long-term water savings from irrigation audits.

5.0 Stakeholder Involvement

In recognition of the importance of public input, LCRA and the City of Austin have committed to a process designed to consider stakeholder and other customer concerns as part of the water supply planning process. A 15-member Stakeholder Committee composed of diverse interests and backgrounds was created to spearhead this effort and provide the vehicle for public input to be considered. The City of Austin and LCRA staff, as directed by the Executive Management Committee, will seek input and guidance from the LCRA/Austin stakeholder committee on conservation initiatives, particularly those that are jointly planned or implemented by the City and LCRA.

In addition to the LCRA/Austin stakeholder committee, the City of Austin and LCRA have separate forums for stakeholder input on independent conservation initiatives. In December 2007, the City Council of Austin adopted a resolution creating a Citizens Water Conservation Implementation Task Force. The 15-member Citizens Task Force meets quarterly to advise City Council on matters related to the 2007 Council resolution which authorized the implementation of additional water conservation strategies to reduce peak demand by one percent per year for 10 years. During LCRA's recent Task Force process in the spring of 2008, the Task Force recommended that LCRA establish a permanent stakeholder advisory committee to support its conservation efforts over time.