APPENDIX A

LOWER COLORADO RIVER AUTHORITY
WATER CONSERVATION PLAN RULES FOR WATER SALE CONTRACTS
DRAFT – For Planned Board Consideration Feb. 2027

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FORWARD

The Texas Legislature created LCRA in 1934 as a conservation and reclamation district. One of LCRA's primary responsibilities is to conserve and protect the soil and water resources of the Colorado River basin within LCRA's statutory district. LCRA Board Policy 501.30 – Water Conservation directs LCRA staff and management to exercise leadership in promoting and, where appropriate, requiring the conservation of ground and surface waters within LCRA's water service area.

The water conservation rules are promulgated pursuant to LCRA policy and in compliance with the requirements of Texas Administrative Code, Title 30, Environmental Quality, Chapter 288, Subchapter A: Water Conservation Plans.

CHAPTER 1:
PURPOSE AND AUTHORITY

1.1. Purpose. The purpose of these rules is to extend existing surface water supplies through water conservation to help assure an adequate supply of water within the LCRA water service area. These rules apply to all LCRA water sale contracts except those expressly excluded below. These rules do not apply to i) water sale contracts for domestic use up to 10 acre-feet per year; ii) water sale contracts for uses other than municipal use that have a Maximum Annual Quantity of 10 acre-feet per year or less and a term of three years or less; or iii) interruptible agricultural contracts for a term of one year or less.

1.2. Authority. These requirements are promulgated in accordance with Chapters 11, and 152, and of the Texas Water Code; Chapter 8503 of the Texas Special District Local Laws Code; Title 30, Chapter 288 of the Texas Administrative Code; and LCRA Board Policy 501 – Water Resources.

CHAPTER 2:
DEFINITIONS

These definitions are in addition to the definitions found in LCRA Water Contract Rules, Article III.

2.1 Commercial Use. The use of water by a place of business, such as a hotel, restaurant, or office building. This does not include multifamily residences or agricultural, industrial, or institutional users.

2.2. Institutional Use. The use of water by an establishment dedicated to public service, such as a school, university, church, hospital, nursing home, prison or government facility. All facilities dedicated to public service are considered institutional regardless of ownership.

2.3. Ornamental Landscaping. Irrigated turfgrass and other landscaping that is not regularly used for active and programmed recreational purposes such as sports fields, golf course areas used directly for sport (greens, tees, fairways, and practice areas), food production, compliance with a locally-adopted fire protection code, cemetery maintenance, foundation maintenance, or tree preservation.

2.4. Regional Water Planning Group. A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.

2.5. Residential Use. The use of water that is billed to single and multifamily residences, including

indoor and outdoor water uses.

2.6. Residential Gallons Per Capita Per Day. The total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.

2.7. Retail Public Water Supplier. An individual or entity that, for compensation, supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when the water is not resold to or used by others.

2.8. Total Gallons Per Capita Per Day. The total amount of water diverted and/or pumped for potable use divided by the total permanent population and then divided by the days of the year. Diversion volumes of reuse shall be credited against total diversion volumes for the purpose of calculating GPCD for targets and goals.

2.9. Wholesale Public Water Supplier. An individual or entity that, for compensation, supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself, its employees or tenants as an incident of that employee service or tenancy when the water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity but does not own the right to the water which is conveyed, whether or not for a delivery fee.

CHAPTER 3:
MUNICIPAL USES BY RETAIL PUBLIC WATER SUPPLIERS AND WHOLESALE SUPPLIERS

3.1. General. The water conservation plan shall effectively address all appropriate methods for reducing water consumption and water waste, improving water use efficiency, and increasing the beneficial reuse and recycling of water. It is recommended that the water utility profile be used to develop the components of the water conservation program. A customer shall explain the reasons for not including the required measure in the plan. The required information may be given in either narrative or outline format. Implementation of this plan must begin no later than the commencement of diversion of water pursuant to the water sale contract.

3.2. Minimum Requirements. All municipal plans must include the following elements:

(a) A utility profile including, but not limited to, information regarding population and customer data, water use data (including Total Gallons Per Capita Per Day (Total GPCD) and Residential GPCD), water supply system data, and wastewater system data. The plan should include estimated population, number of connections, and average daily water use at build-out or at the end of the contract term.

(b) Specific, quantified five- and 10-year targets for water savings, including goals for water loss programs and goals for municipal use in Total GPCD and Residential GPCD. The goals established by the customer are not enforceable.

(c) A records management system that allows for the classification of water sales and uses into the most detailed level of water use data available to it, including, if possible, the following sectors: residential single family, residential multifamily, commercial, institutional, industrial, agricultural, and wholesale. Any new billing system acquired by a public water supplier must be capable of reporting detailed water use data by these sectors.

(d) Metering devices, within the accuracy of plus or minus 5%, to measure and account for the water diverted from the source of supply. The plan must provide for testing and calibration of the meter by the customer at least once a year.

(e) A program for universal metering of both customer and public uses of water, for meter

testing and repair, and for periodic meter replacement. Meter replacement should follow recommended meter manufacturer guidelines.

(f) Measures to determine and control water loss (for example, periodic visual inspections along distribution lines, annual audit of the water system to determine illegal connections, use of forms, and accounting for loss due to flushing, firefighting, etc.). The customer shall conduct water loss audits in accordance with Texas Water Development Board (TWDB) rules (Texas Administrative Code, Title 31, Chapter 358).

(g) Education and public information programs.

(h) Water rates. A Retail Public Water Supplier must provide a copy of its rates to LCRA within one year of adoption. Water rate structures shall be cost-based and should discourage the excessive use of water. Such a rate usually takes the form of an increasing block rate, a seasonal load rate, or an excess use rate. Rate structures in which the unit cost of water decreases as consumption increases, and flat rates are not acceptable. It is recommended that rates be set so they disincentivize discretionary use.

(i) If applicable, a reservoir systems operations plan providing for the coordinated operation of reservoirs owned by the customer within a common watershed or river basin to optimize available water supplies.

(j) A means of implementation and enforcement, which shall be evidenced by:

(1) A copy of the ordinance, resolution, or tariff, indicating official adoption of the water conservation plan by the customer; and

(2) A description of the authority by which the customer will implement and enforce the water conservation plan.

(k) Consideration of alternative water supplies, including wastewater reuse, to supplement water supply needs. A customer shall state whether the alternative supply is an appropriate water supply option.

(l) Document coordination with the utility's regional water planning group to help ensure consistency with the appropriate approved regional water plans.

(m) A permanent landscape watering schedule for automatic spray irrigation of ornamental landscaped areas that limits water use to no more than once ~~twice~~ per week and only between the hours of midnight to 10 a.m., and 7 p.m. to midnight adopted no later than May 1, 2029 and implemented no later than the earlier of March 1, 2031 or when combined storage of Lakes Buchanan and Travis falls below 900,000 acre-feet. Prior to implementation of the permanent no more than once-per-week schedule, a permanent landscape watering schedule for automatic spray irrigation of ornamental landscaped areas must limit water use to no more than twice per week.

(n) A permanent landscape watering schedule for drip irrigation and hose-end sprinkler irrigation of ornamental landscaped areas that limits water use to no more than twice per week and only between the hours of midnight to 10 a.m., and 7 p.m. to midnight.

(o) Any watering schedule variances for large landscapes must require that no part of the landscape is watered through automatic spray irrigation more than once per week after May 2029 and no more than twice per week prior to May 2029.

3.3. Additional Minimum Requirements for Retail Public Water Suppliers requesting water for a new or expanded service area. All plans for these retail water suppliers for municipal use must include a Total GPCD cap of no more than 150 for all new developments.

3.4. Additional Minimum Requirements for Wholesale Suppliers. All plans for wholesale water suppliers for municipal use must include the following:

(a) A description of the wholesaler's service area, including population and customer data, water use data, water supply system data, and wastewater data.

(b) In addition to the requirements of Section 3.2(b), specific, quantified five- and 10-year targets for water savings including, where appropriate, target goals for municipal use in GPCD for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of said goals.

(c) A description as to which practice(s) and/or device(s) will be used to measure and account for the water diverted from the source(s) of supply.

(d) A monitoring and record management program for determining water deliveries, sales, and losses.

(e) A program of metering, leak detection, and repair for the wholesaler's water storage, delivery, and distribution system.

(f) A requirement in every wholesale water supply contract entered, extended, or renewed after official adoption of the water conservation plan, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of the LCRA rules. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale must have water conservation requirements such that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with LCRA rules. For example, if the wholesale customer supplies water to a retail provider, the retail provider's water conservation plan shall meet the minimum requirements in section 3.2, among other applicable requirements in the rules.

(g) In addition to the minimum requirements above, the water wholesaler shall select any combination of the following conservation strategies, if they are necessary to achieve the stated water conservation goals of the plan.

(1) Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates.

(2) A program for reuse and/or recycling wastewater and/or gray water.

(3) Any other water conservation practice, method, or technique the wholesaler shows to be appropriate for achieving the stated goal(s) of the water conservation plan.

3.5. Additional Mandatory Requirements for Certain Utilities. If the customer serves or plans to serve a population of 5,000 or greater in the next 10 years, its water conservation plan must include a leak detection, repair and water loss accounting program for the water transmission, delivery, and distribution system.

~~(a) A provision in a customer's water conservation plan that every wholesale water supply contract entered, extended, or renewed after official adoption of the customer's water conservation plan shall require each successive wholesale customer to develop and implement a water conservation plan or water conservation measures using the applicable elements of the LCRA rules. If the customer's wholesale customer intends to resell the water, the contract between the initial supplier and wholesale customer must provide that the contract for the resale must have water conservation requirements such that each successive customer in the resale will be required to implement measures in accordance with LCRA rules.~~

3.6. Additional Recommended Conservation Strategies. Other measures recommended for adoption include, but are not limited, to:

(a) Adoption through ordinance, deed restriction, or covenant – where feasible and allowed by federal, state, and local law and regulations – those conservation measures that are contained in Attachment 1, *"Landscape Conservation Standards."*

(b) Adoption through ordinance, deed restriction, or covenant – where feasible and allowed by federal, state, and local law and regulations – the following conservation measures:

(1) The conservation measures contained in Attachment 2, *"Pool Construction Standards."*
(2) A requirement for submeters for irrigation at every residential property.
(3) TWDB Municipal Best Management Practice (BMP) 7.5 Water Wise Landscape Design and Conversion Programs. (*See https://www.twdb.texas.gov/conservation/BMPs/Mun/index.asp*)
(4) TWDB Municipal BMP 9.1 Prohibition on Wasting Water.
(5) TWDB Municipal BMP 9.2 Conservation Ordinance Planning and Development.
(6) TWDB Municipal BMP 9.3 Enforcement of Texas Irrigation Standards.
(7) TWDB Municipal BMP 2.3 Water Survey for Single-Family and Multifamily Customers.
(8) TWDB Municipal BMP 2.4 Customer Characterization: Analysis to Prioritize BMP Selection.
(9) TWDB Municipal BMP 4.2 Utility Water Audit & Water Loss.
(10) TWDB Municipal BMP 5.3 Landscape Irrigation Conservation and Incentives or TCEQ irrigation and soil standards.
(11) TWDB Municipal BMP 5.5 Residential Landscape Irrigation Evaluations offered and actively marketed individually to all customers using over 25,000 gallons per month during peak months.
(12) TWDB Municipal BMP 7.5 Water Wise Landscape Design and Conversion Programs.
(13) TWDB Municipal BMP 8.3 Water Reuse. If wastewater treatment is required on-site, a development design plan shall include a reuse system designed to deliver wastewater to irrigate common areas, golf courses, etc. once the wastewater volume is adequate.
(14) Other measures that may be applicable, such as landscape irrigation evaluations, plumbing fixture replacement programs, and the use of on-site alternative water sources such as graywater, air conditioning condensate or rainwater harvesting systems.

(c) A method for monitoring and evaluating the effectiveness of the conservation measures.

3.7. Other Approved Water Conservation Plans. A water conservation plan prepared and approved in the last five years by LCRA, the Texas Commission on Environmental Quality (TCEQ) or TWDB and substantially meet the requirements of these rules as determined by LCRA may be substituted for development of a plan to meet LCRA rules.

~~3.7. Plan Update. The customer shall review and update its water conservation plan in accordance with these rules, including the specification of five- and 10-year GPCD and water loss goals.~~

CHAPTER 4:
INDUSTRIAL OR MINING WATER USE

4.1. General. The water conservation plan shall effectively address all appropriate methods for reducing water consumption and water waste, improving water use efficiency, and increasing the beneficial reuse and recycling of water. A customer shall explain reasons for not including a required measure in the plan. The required information may be given in either narrative or outline format. Implementation of this plan must begin no later than the commencement of diversion of water pursuant to the water sale contract.

4.2. Minimum Requirements. All plans must include the following:

(a) A baseline profile that includes a detailed description of the use of the water in the production process, including how the water is diverted and transported from the source(s) of supply, how the water is utilized in the production process, and the estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.

(b) To the extent water is used for ornamental landscape watering, a permanent schedule for automatic spray irrigation that limits water use to no more than once ~~twice~~ per week and only between the hours of midnight to 10 a.m. and 7 p.m. to midnight adopted no later than May 1, 2029 and implemented no later than the earlier of March 1, 2031 or when combined storage of Lakes Buchanan and Travis falls below 900,000 acre-feet. Prior to implementation of the permanent no more than once per week schedule, a permanent landscape watering schedule for automatic spray irrigation of ornamental landscaped areas must limit water use to no more than twice week. Adherence to the following to be applicable for new construction or major renovations for ornamental landscaping. ~~no later than 12 months following Board approval of these rules:~~

(1) No more than 50% of the landscape shall be planted with turf. Longer leafed native grasses and wildflowers that use low amounts of water are not considered turf grass when determining how much turf grass is allowed.

(2) Automatic spray irrigation shall be limited to 2.5 times the foundation footprint.

(c) Specific, quantified five- and 10-year targets for water savings and the basis for the development of such goals. The goals set by the customer are not enforceable.

(d) A description of the device(s) and/or method(s), within an accuracy of plus or minus 5%, to be used to measure and account for the amount of water diverted from the source of supply. The plan must provide for testing and calibration of the meter by the customer at least once a year.

(e) Leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system

(f) Customers must consider the use of alternative water supplies and/or wastewater reuse to supplement water supply needs and state whether the alternative supply is an appropriate water supply option.

(g) Application of state-of-the-art equipment and/or process modifications to improve water use efficiency.

(h) Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan, including employee education and awareness.

4.3. Other Approved Water Conservation Plans. A water conservation plan prepared and approved in the last five years by LCRA, TCEQ or TWDB and substantially meeting the requirements of these rules as determined by LCRA may be substituted for development of a plan to meet LCRA rules.

CHAPTER 5:
AGRICULTURAL WATER USE

5.1. General. The requirements of this chapter apply to Agricultural Use by an individual customer. This chapter, however, does not apply to Recreation or Irrigation Use that is unrelated to Agricultural Use. The water conservation plan (plan) shall effectively address all appropriate methods for reducing water consumption and water waste, methods for improving water use efficiency, and methods for increasing the beneficial reuse and recycling of water. A customer shall explain reasons for not including a required measure in the plan. The required information may be given in either narrative or outline format. Implementation of this plan must begin not later

than the commencement of diversion of water pursuant to the water sale contract.

5.2. For Agricultural Water User Not Receiving Water from a System. (*see* Sec. 5.3 for provisions applicable to a customer supplying multiple end-users)

(a) Minimum Requirements. All plans must include the following:

(1) Baseline Profile. A description of the agricultural production process which shall include but is not limited to i) the types of crops or landscape use; ii) approximate acreage irrigated; iii) estimated annual water usage; iv) any seasonal or annual crop rotation; and v) soil types of the land to be irrigated. The description should include how the water is diverted and transported from the source(s) of supply, how the water is utilized in the production process, and the estimated quantity of water consumed in the production process and therefore unavailable for reuse, discharge, or other means of disposal.

(2) Goals. Specific, quantified five- and 10-year targets for water savings and the basis for the development of such goals. The goals established by agricultural water users under this subparagraph are not enforceable.

(3) A description of the device(s) and/or method(s) within an accuracy of plus or minus 5% to be used to measure and account for the amount of water diverted from the source of supply.

(4) Leak-detection, repair, and accounting for water loss in the water distribution system.

(5) Application of state-of-the-art equipment and/or process modifications to improve water use efficiency; these may include: 1) land improvements for retaining or reducing runoff, and increasing the infiltration of rain and irrigation water including, but not limited to, land leveling, furrow diking, terracing, and weed control; and, 2) tailwater recovery and reuse.

(6) Any other water conservation practice, method, or technique which the user shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

5.3. Agricultural Systems Serving Multiple Users.

(a) The requirements of this section apply to Agricultural Use in a system providing agricultural water to more than one user. The water conservation plan (plan) shall effectively address all appropriate methods for reducing water consumption and water waste, methods for improving water use efficiency and methods for increasing the beneficial reuse and recycling of water. A customer shall explain reasons for not including a required measure in the plan. The required information may be given in either narrative or outline format. Implementation of this plan must begin not later than the commencement of diversion of water pursuant to the water sale contract.

(b) Minimum Requirements. All plans must include the following:

(1) A system inventory for the supplier's: (i) structural facilities including the supplier's water storage, conveyance, and delivery structures; (ii) management practices, including the supplier's operating rules and regulations, water pricing policy, and a description of practices and/or devices used to account for water deliveries; and (iii) a user profile including square miles of the service area, the number of customers taking delivery of water by the system, the types of crops, the types of irrigation systems, the types of drainage systems, and total acreage under irrigation, both historical and projected.

(2) Specific, quantified five- and 10-year targets for water savings including maximum allowable losses for the storage and distribution system. The goals established by a system providing agricultural water to more than one user under this subparagraph are not enforceable.

(3) A description of the practice(s) and/or device(s) which will be utilized to measure and account for water diverted from the source(s) of supply.
(4) A monitoring and record management program of water deliveries, sales, and losses.
(5) A leak-detection, repair, and water loss control program.
(6) A program to assist customers in the development of on-farm water conservation and pollution prevention plans and/or measures.
(7) A requirement in every wholesale water supply contract entered, extended, or renewed after official adoption of the plan (by either ordinance, resolution, or tariff) that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in LCRA rules. If the successive wholesale customer intends to resell the water, the contract between the LCRA customer (i.e., the initial supplier) and the successive customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of the LCRA rules.
(8) Official adoption of the water conservation plan and goals, by ordinance, rule, resolution, or tariff, indicating that the plan reflects official policy of the supplier.
(9) Any other water conservation practice, method, or technique which the supplier shows to be appropriate for achieving conservation.
(10) Documentation of coordination with the regional water planning groups to help ensure consistency with appropriate approved regional water plans.

(c) Plan update. The customer (i.e., an Agricultural Use system providing water to more than one user) shall review and update its water conservation plan, in accordance with these rules, including the specification of five- and ten-year targets for water saving.

5.4. Other Approved Water Conservation Plans. A water conservation plan prepared and approved in the last five years by LCRA, TCEQ or TWDB and substantially meet the requirements of these rules as determined by LCRA may be substituted for development of a plan to meet LCRA rules.

CHAPTER 6:
RECREATIONAL OR IRRIGATION WATER USE

6.1. General. The requirements of this chapter apply to Recreational Use and Irrigation Use unrelated to Agricultural Use. The water conservation plan (plan) shall effectively address all appropriate methods for reducing water consumption and water waste, methods for improving water use efficiency, and methods for increasing the beneficial reuse and recycling of water. A customer shall explain reasons for not including a required measure in the plan. The required information may be given in either narrative or outline format. Implementation of this plan must begin no later than the commencement of diversion of water pursuant to the water sale contract.

6.2. Minimum Requirements. All plans must include the following:

(a) A description of the recreational or irrigation use process, which shall include, but is not limited to i) specification of the amount of turf, landscape or crops to be irrigated; ii) monthly use diversions; iii) any seasonal or annual turf, landscape or crop rotation; and iv) soil types of the land to be irrigated.
(b) A description of the irrigation method or system and equipment. This could include pumps, flow rates, plans, and/or sketches of the system layout.
(c) A description of the device(s) and/or methods to be used to measure and account, within an accuracy of plus or minus 5%, for the amount of water diverted from the source of

supply. The plan must provide for testing and calibration of the measuring device by the customer at periods not greater than once a year for contracts of greater than 20 acre-feet per year and at periods not greater than once every two years for contracts up to 20 acre-feet per year.

(d) To the extent water is used for ornamental landscape watering, a permanent schedule for spray irrigation that limits water use to no more than once ~~twice~~ per week and only between the hours of midnight to 10 a.m. and 7 p.m. to midnight adopted no later than May 1, 2029 and implemented no later than the earlier of March 1, 2031 or when combined storage of Lakes Buchanan and Travis falls below 900,000 acre-feet. Prior to implementation of the permanent no more than once-per-week schedule, a permanent landscape watering schedule for automatic spray irrigation of ornamental landscaped areas must limit water use to no more than twice per week. Drip irrigation of ornamental landscaped areas must limit water use to no more than twice per week. Any watering schedule variances for large landscapes must require that no part of the landscape be irrigated more frequently than specified herein. Adherence to the following to be applicable for new construction or major renovations of ornamental landscaping ~~no later than 12 months following Board approval of these rules~~:

(1) No more than 50% of the ornamental landscape shall be planted in turf. Longer leafed native grasses and wildflowers that use low amounts of water are not considered turf grass when determining how much turf grass is allowed.

(2) No more than 75% of the ornamental landscape shall be irrigated by automatic spray irrigation.

(e) Specific, quantified five- and 10-year targets for water savings including, where appropriate, quantitative goals for recreational and/or irrigation water use efficiency ~~and a pollution abatement and prevention plan~~. The goals established by a customer under this subparagraph are not enforceable.

(f) Use of water conserving irrigation equipment and application systems or methods. Examples include the use of controllers with water budget features, utilizing the appropriate spray heads, surge irrigation, low pressure sprinkler, drip irrigation, non-leaking pipe, etc.

(g) Leak-detection, repair and water-loss control. Irrigation system inspections should be done periodically, and necessary adjustments/repairs made to eliminate leaks, overspray or clogging. The irrigation system should be tested for uniformity of spray as well as the application rate. Irrigation testing should be conducted for each area capable of independent control.

(h) Irrigation testing and scheduling. Maintenance zones shall be identified, and irrigation schedules including frequency and duration should be developed for these zones. Irrigation scheduling will be adjusted, at minimum, quarterly, to reflect changes in seasonal irrigation requirements.

(i) Equipment upgrades. Equipment upgrades should be implemented where technically and economically feasible. Any new centralized irrigation system equipment installed on a golf course must be designed to have the ability to apply different irrigation schedules to different sections of the course, including greens, tees, fairways, practice areas, roughs and ornamental landscaping surrounding club houses, and have flow sensors with shutoff valves. Examples of upgrades include automatic controllers, rain shut-off devices, soil moisture monitors, and installation of water conserving irrigation equipment (e.g., drip systems, bubblers).

(j) Future conversions. Where feasible, landscape areas should be converted to low maintenance, low water use plantings. In addition, customer should identify and evaluate opportunities for land improvements for retaining or reducing runoff, and increasing the infiltration of rain and irrigation water including, but not limited to, land leveling, terracing, and weed control.

(k) Alternative water supplies. Customers must consider the use of alternative water supplies

and/or wastewater reuse to supplement water supply needs and state whether it is an appropriate water supply option.

(l) Water direct reuse and recycling. Where appropriate, the customer should identify and evaluate opportunities for tailwater recovery and reuse.

6.3. Irrigation Water Use for Resale by Customer. This section applies to customers that sell water to consumers that own and operate their own irrigation systems for compensation. Customers shall develop a plan that includes water conservation measures using the applicable elements of these rules. These measures include, but are not limited to, development of a baseline profile and implementing a non-promotional water use rate, a metering and leak detection program for the irrigation system, and a customer education program.

6.4. Other Approved Water Conservation Plans. A water conservation plan prepared and approved in the last five years by LCRA, TCEQ or TWDB and substantially meet the requirements of these rules as determined by LCRA may be substituted for development of a plan to meet LCRA rules.

CHAPTER 7:
OTHER WATER USES

7.1. General. A water conservation plan for any other purpose or use not covered in these rules shall provide information where applicable about the practices, techniques, and technologies that will be used to reduce the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water.

CHAPTER 8:
REPORTING REQUIREMENTS, UPDATES AND IMPLEMENTATION

8.1. Water Conservation Coordinator. All customers must designate a water conservation coordinator who will be responsible for implementing the customer's approved water conservation plan, completing progress reports, and coordinating conservation activities with LCRA.

8.2. Progress Report Schedule, and Plan Updates and Amendments.

(a) Progress Reports. All customers must complete progress forms distributed by LCRA that will assess overall progress and success of customer conservation programs. The surveys will be distributed in the first quarter of each year, and customers must return the forms within 30 days. LCRA will use this information in its annual reports to TCEQ.

(b) Plan Updates and Amendments. Water Conservation Plans shall be updated every five years, at a minimum, to update the utility profile and five and ten year goals, reflecting conditions associated with the use of water that have changed since the plan was first adopted or as otherwise required in the previous chapters. Any amendments to these rules that occurred after the customer's plan was adopted shall be ~~included in the updated plan~~ adopted into an updated plan within 6 months of the effective date of such amendments.

8.3. Content of Progress Reports. LCRA will develop a report form for customers to complete. This report shall include the following:

(a) Measures Implemented. A description of specific measures implemented. These measures will match measures included in customer's water conservation plan.

(b) Results of Conservation Measures. Customers should report on any observed change in water use and water demand, economic savings, and public response that occurred

because of implementing these measures.

8.4. Implementation of Plans. The customer agrees to commence implementation of the water conservation programs listed in the water conservation plan not later than the commencement of diversion of water pursuant to the water sale contract. The customer agrees to continue these programs for the duration of the contract and/or utility service agreement with LCRA. Failure of the customer to implement said water conservation plan may result in LCRA taking legal action to require compliance.

8.5. Amendment to Rules. LCRA may, from time to time, amend these rules to reflect advances in water conservation measures or changes in state or federal regulations. LCRA will notify customers of proposed amendments to these rules, and customer input will be solicited for any and all proposed amendments. Any proposed amendments will be presented to the LCRA Board of Directors and will be subject to approval by the Board.

Attachment 1: Landscape Conservation Standards

~~These standards are similar to the Greater Austin Homebuilder "Sensible Landscaping for Central Texas" guidelines developed with significant input from the LCRA.~~ These standards are meant to provide builders and homeowners with a well-designed, water-efficient landscape. The standards can be adopted through ordinance, deed restriction or covenant where economically feasible and allowed by federal, state and local law.

Design

A. Turf shall not be planted on more than 50% or up to 5,000 ~~7,000~~ square feet of the landscape ~~shall be planted in turf~~. Longer leafed native grasses and wildflowers that use low amounts of water are not considered turf grass ~~when determining how much turf grass is allowed~~ in this context.

B. Automatic spray irrigation for each home/business shall be limited to 2~~.5~~ times the foundation footprint, with a 10,000 ~~12,000~~-square-foot maximum. The footprint may include both the house and the garage, but not the driveway or patio.

Soil

A. There shall be no less than **6 inches** of high-quality topsoil in planted areas.

B. Topsoil shall be native soil from the site, or fertile, friable, blended soil/compost blend. Topsoil shall not be of any admixture of subsoil or slag and shall be free of stones over 1.5 inches in diameter, lumps, refuse, plants or their roots, sticks, noxious weeds, salts, soil sterilants or other material that is detrimental to plant growth. If topsoil is delivered, it shall be obtained from a well-drained site that is free of flooding. Topsoil shall not be delivered or spread while in a muddy condition.

C. Non-native topsoil shall contain not less than 25 percent organic matter (compost) that is blended through the soil.

D. Topsoil that is added to the site shall be incorporated into the existing surface in a 2- to 3-inch scarified transition layer to enable water to drain adequately through the different types of soil. Do not scarify within the drip line of existing trees that will be retained.

Irrigation

A. Automated irrigation systems shall not be required in any new landscape. However, if irrigation is installed it shall meet the guidelines outlined in this section.

B. All irrigation systems shall be installed in accordance with state law, Title 2 Texas Water Code, Chapter 34, and Title 30 Texas Administrative Code, Chapter 344 rules, as regulated and enforced by TCEQ. Irrigation contractors who install the irrigation systems must be TCEQ-licensed irrigators.

C. Drip irrigation shall be used for all irrigated landscaped areas, excluding turf. Use point source emitters for trees and shrubs, and drip tubes at a depth of 2 inches below the surface for ground cover plants. Do not irrigate turf with drip irrigation. Instead use pressure regulating multi-stream irrigation to irrigate turf, when possible. ~~Turf can be irrigated with drip, but drip irrigation is not required.~~

D. Areas planted with turf shall be in separate zones from areas planted with shrubs, trees or perennials. ~~All zones should have the same irrigation type.~~

E. ~~Hydrozoning of~~ All areas that are irrigated automatically ~~will be scheduled~~ shall be in hydro zones having plants with similar watering needs.

F. All automatic irrigation systems are required to have a rain sensor, a soil moisture sensor and/or a weather sensor connected to an irrigation controller to stop an irrigation cycle during and after a rainfall event. Rain sensors are to be installed in a location where rainfall is unobstructed. Rain sensors should be adjusted at the ¼-inch setting.

G. Sprinkler irrigation is prohibited in median strips, parking islands and all landscape areas less than 10 feet from curb to curb or 10 feet in width. Areas less than 10 feet curb-to-curb or 10 feet in width can be irrigated with low-volume irrigation. Low-volume irrigation (subsurface drip irrigation or drip irrigation) shall be installed in long landscape strips less than 10 feet in width to avoid runoff and overspray onto the hardscape.

H. All new residential irrigation systems are required to have pressure regulation where static operating pressure exceeds the sprinkler manufacturer's recommended operating range to eliminate extensive misting. These should include in-line pressure regulators, flow control valves, or sprinkler devices equipped with pressure regulation stems or nozzles.

I. Irrigation systems shall have a WaterSense labeled smart controller that features multiple start times, rain sensor capability, a water budget feature, and a non-volatile memory in case of power outage.

J. Scheduling recommendations shall be posted inside or immediately near the controller enclosure box for easy reference.

K. Homeowners shall be provided with a complete irrigation plan (or as-built drawing) that describes the location of each irrigation zone, control valves, and sprinkler devices.

L. Sprinkler systems shall be designed with no overspray onto the hardscape, include in-line check valves and sprinkler heads with check valves in irrigation zones located at the bottom of sloped terrain along curbs, sidewalks, driveways, and other hardscapes. Systems also shall include devices that prevent low-head drainage after the sprinkler zone is turned off.

M. Post-installation inspections shall be required for all newly installed in ground irrigation systems.

Plant Choice

A. Plants used must be native and drought tolerant.

B. Turf grasses shall be limited to low water use turfs. St. Augustine grasses shall not be planted.

C. Invasive plants shall not be used.

Plant Prepping, Placement and Spacing

A. A hole dug for the plant or tree should be two to three times wider than the container or root ball in which the plant is being stored, ensuring water is able to be absorbed by the plant's roots.

B. Existing soil should be blended with compost before the sodding or seeding with the recommended turfgrass.

C. Proper plant placement and spacing is critical to plant health and long-term landscape quality. Placing plants too close to buildings can cause problems with plant disease, as well as insect and structural problems. Proper plant spacing helps ensure good air flow and room

for plants to mature without crowding. Consider the mature height and width of plants before planting them.

Mulch

A. All areas planted with trees, perennials and shrubs shall be finished with a **2- to 4-inch-deep** layer of high-quality 50/50 blend of organic mulch and compost blend.

B. Wood chip mulch shall be clean wood chips free of man-made debris, shredded into coarse pieces ranging from 1 to 3 inches.

C. Rock mulch shall be used in planting beds only in small areas with less than 20% of the landscape with succulents or areas without irrigation requirements such as pathways. Rock mulch can increase heat effect and require more water on planted beds. ~~Rock mulch shall be used in planting beds only as temporary mulch until full plant coverage is achieved, or as permanent mulch in areas with native shrubs and perennials.~~

Maintenance

A. Replenish mulch/compost blend in non-turf areas every two years at a minimum. Doing so during the fall and spring is recommended.

B. Aerate turfgrass within the first year of construction and twice a year after that (about Oct. 1 and March 1).

C. Top dress turfgrass areas with quality compost twice a year (about Oct. 1 and March 1) at a depth of 0.25 to 0.5 inches following the aeration and drag or rake it into the canopy and aeration holes.

D. Mow turf no shorter than 3-4 inches for turf health and water retention.

E. Set the automatic irrigation system back to a normal schedule after the establishment period.

Attachment 2: New Pool Construction Standards

A. Private residential swimming pools shall not be installed with sand media filters.

B. Pool water features installed with public swimming pools or private residential swimming pools shall be designed so the water feature can be turned off without affecting the filtering capabilities of the pool. Automatic pool fill features shall be designed so they can be turned off in both public and private residential swimming pools.

C. Pools with shared water between the pool and spa shall be designed so water can be shared without the necessity of an above-ground water feature that cannot be turned off. If a water feature between the spa and the pool exists, the default setting will be for it to be turned off.

D. Automatic pool fill features shall include an automatic pool shut-off feature.

E. Vanishing or negative edge pools shall be designed with catch basins large enough to prevent splashing that leads to increased water use.

F. Backwash systems shall be designed so they may be turned off.

G. Pool skimmers should be managed in such a way as to minimize water consumption. The range of allowable water within the skimmer fill range should allow for several inches of evaporative loss prior to filling.

H. All residential swimming pools shall have a hose end timer installed at the nearest hose bib location. In addition, a hose bib back-flow prevention device must be connected to the hose bib fixtures nearest to the pool.

I. All residential swimming pools should ~~shall~~ be installed with a permanent automatic pool cover to minimize evaporative loss when not in use.