

**Edwards Aquifer Authority
2014 Regional Water Conservation Work Plan**

5.1.3 Regional Water Conservation Program

Table 7.1 Budgeted Amount: \$986,500

Proposed Work Plan Amount: \$986,500

The goal of the Regional Water Conservation Program (RWCP) is to conserve 20,000 ac-ft/yr of permitted or exempt Edwards Aquifer withdrawals. In exchange for technical assistance and incentives for implementing the various measures, one-half of the conserved water (10,000 ac-ft) will be committed to remain in the Aquifer unpumped, but still owned by participating permit holders, for 15 years to benefit springflow levels and contribute to species protection. The other one-half of the conserved water will remain available to the participating entity.

In order to provide an immediate benefit to important habitat (by contributing to spring flows), several entities within the EAA jurisdictional area have agreed to reduce their consumptive use by a combined total of 10,000 acre feet. This initial "loan" of water rights will serve as a reserve for up to 10 years which will be placed in the Groundwater Trust (see Table below):

| Entity | Acre Feet of Water Donated |
|--------------------------|----------------------------|
| San Antonio Water Supply | 8,000 |
| City of San Marcos | 300 |
| Texas State University | <u>100</u> |
| TOTAL | 8,400¹ |

Loaned water rights will be returned to the loaning entity at the end of 10 years or when an equal amount is identified as conserved and in reserve by the RWCP. Loaned water will be returned to the donor entity annually in a proportion equal to their contribution

The remaining 10,000 acre feet will be saved through water loss reduction and conservation efforts identified by Texas AgriLife (Texas AgriLife) staff while under contract with the EAA to implement the RWCP.

The RWCP will conduct water system assessments for certain communities in the Edwards Aquifer Region to identify opportunities for water conservation. After an assessment is completed, the Edwards Aquifer Authority (EAA) will contract with communities that have conservation needs that can be addressed cost-effectively. Implementation may include low flow toilet and showerhead distribution to residents, retrofitting large scale water users, and providing education and assistance to exempt well users.

¹ There are still 1,600 ac-ft of water rights left to be "borrowed" to meet the goal of 10,000 acre feet. The City of Uvalde has agreed to loan the Program 250 ac-ft when the remaining balance has been obtained. Discussions with USFWS in consultation with the Department of Defense (DoD) regarding the aquifer use by its Joint Base Operations in San Antonio are ongoing. As part of the biological opinion issued with the ITP, it appears likely that DoD will include a significant conservation program with the potential to conserve more than 1,600 ac-ft of Edwards water. USFWS has said that the 10,000 ac-ft commitment in the EAHCP will be reduced by the amount of any DoD savings.

Long Term Objective: To conserve and reduce water use by 20,000 acre feet from the Edwards Aquifer by identifying water system infrastructure rehabilitation and replacement needs, installation of residential water saving fixtures, public education, and partnering with high volume water users (schools, hospitals, etc.) to reduce water use by replacing low efficiency fixtures with high-efficiency toilets, shower heads, aerators, and alternatives to kitchen rinsers and other water-using equipment and processes.

Assumptions:

1. The EAA will continue to maintain an Interlocal Cooperation Agreement with Texas AgriLife to manage and implement the RWCP.
2. Texas AgriLife will represent and act on behalf of the EAA to assist Edwards Aquifer region water users in implementing the incentive programs described in the EAHCP.
3. The EAA will continue to receive reimbursement from the U.S. Bureau of Reclamation SMART Grant funds, through September 2014, as part of the implementation of the RWCP.
4. Texas AgriLife will complete a priority matrix of communities identified for assessment.
5. Texas AgriLife will have completed assessments on three communities in the Edwards Aquifer region in 2013 and begin implementation of conservation measures.

Target Performance Measures for 2014:

1. Texas AgriLife will contact communities from the matrix developed in 2013 until at least three more municipalities willing to allow Texas AgriLife to conduct a water conservation assessment of their water system and participate in the four RWCP elements are identified.
2. Texas AgriLife will schedule and conduct a minimum of three additional water conservation assessments.
3. Texas AgriLife will initiate implementation contracts as funds are available. Contracts will serve as the funding mechanism for EAA to implement the RWCP elements specific to the community and its needs.
4. Texas AgriLife will submit deliverables for three communities, based on the community's needs, to the EAA per the Interlocal Cooperation Agreement and could include:
 - Quarterly RWCP Reports
 - Lost Water and Leak Detection BMPs and Resource Materials
 - Lost Water and Leak Detection Procedures and Forms
 - High-Efficiency Plumbing Distribution Procedures and Forms
 - Commercial/Industrial Retrofit Rebate Procedures and Forms
 - Reclaimed Water Rebate Procedures and Forms
 - Reclaimed Water BMPs and Resource Materials
 - Texas AgriLife Extension Agent EAHCP and RWCP Orientation Materials
 - Region Wide Initiative Contract

Methodology:

This work plan will be implemented through Interlocal Cooperation Agreement (No. 12-615-HCP) between the EAA and Texas AgriLife. The Contract was executed on January 1, 2013 will expire December 31, 2017. The Interlocal Cooperation Agreement requires that Texas AgriLife complete the following tasks during 2014.²

Task 1: Community Water Conservation Assessments

- Texas AgriLife will schedule and conduct a minimum of three water conservation assessments each. The assessments will include, but are not limited to, data research and collection, data analysis; onsite visit; and communication with appropriate City staff as necessary to complete the assessment. Each community assessment will be specific to the needs, concerns, and past, current, and planned water conservation activities of the community, but the report/plan will contain, at a minimum, the following sections:

1. Water Uses and Demand

- Identify the population served and number of commercial and domestic taps
- Discuss the community's historical water use
- Describe the community's current water allocation
- Discuss the current water demand

2. Opportunities for Conservation

- Discuss the community's use of meters and current leak detection and water loss management
- Describe past high-efficiency plumbing (*i.e.*, toilets, shower heads, and aerators) distribution efforts and potential water savings of additional high-efficiency plumbing distribution
- Discuss large-scale water users, including commercial and industrial users
- Describe existing, proposed, or potential water re-use programs (*i.e.*, use of greywater, condensate, or rainwater catchment systems)

3. Program Participation

- Discuss the community's staffing availability or needs

² The Interlocal Cooperation Agreement stipulates additional tasks that will be completed after 2014. Those tasks are not discussed in the 2014 work plan.

- Describe initiatives or recommendations from the community
- Describe available office space and high-efficiency plumbing storage and/or distribution facilities
- Discuss interest of community in supporting Program elements for exempt well owners outside the community

4. Conclusions and Recommendations

- Provide prioritized recommendations
- Include cost projections
- Identify projected water savings and costs per acre-foot
- After the completion of an assessment report, Texas AgriLife staff will present the findings and proposed conservation plan to City Council for their approval.
- When an assessment report and plan have been approved by the City Council, Texas AgriLife will draft a contract that will serve as the funding mechanism for EAA to implement the RWCP elements specific to the community and its needs.

Task 2: Program Implementation

- Texas AgriLife will perform management and planning functions as well as performance measurement during the course of this effort. Texas AgriLife will be responsible for planning field activities and developing, implementing, and maintaining schedules in coordination with the EAA HCP Executive Director;
- Texas AgriLife will actively oversee the contracts to completion and report the results to the EAA and the Regional Conservation Monitoring Committee;
- Texas AgriLife will produce quarterly reports with detailed accounts of implementation monitoring and adjustments made to RWCP components in the preceding quarter. When appropriate, reports should include photographs documenting implementation progress, paying particular attention to field activities, high-efficiency plumbing (*i.e.*, toilets, shower heads, and aerators) distribution efforts, leak detection efforts, etc;
- Texas AgriLife will develop a set of procedures and forms necessary for implementing the four RWCP elements, building on those details included in the EAHCP;

- Texas AgriLife will develop best management practices (BMPs) and other resource materials for the lost water and leak detection element and the reclaimed water element;
- Texas AgriLife will work with the Texas Rainwater Catchment Association to inform interested EA region water users about the EAHCP, the RWCP, and the use of greywater, condensate, and rainwater catchment systems;
- Texas AgriLife will estimate the water savings realized over the period of performance and report findings to the EAA;

Task 2 A: Community Initiatives

- Texas AgriLife will draft the initial contract terms between the community and the EAA for EAA's consideration/negotiation to include:
 - Staffing and funding needed to implement the RWCP to include the option of using a Texas AgriLife Extension Agent designated to implement the RWCP for one or more communities or county-wide. If necessary, Texas AgriLife will assist communities in interviewing and selecting a qualified candidate;
 - RWCP element procedures, BMPs, and other resource materials tailored to specific community needs and assistance to community personnel or Texas AgriLife Extension Agents in implementing the RWCP elements;
 - Ongoing communication with the participating communities and active monitoring of contract/community RWCP implementation and timelines; including review and participation from the Regional Conservation Monitoring Committee.
 - Arranging for or providing technical assistance as needed.
- Texas AgriLife will make program adjustment suggestions as needed.
- Texas AgriLife will help communities identify funding sources for conservation activities beyond that provided by the EAHCP.

Task 2 B: Exempt Wells Initiative

- Texas AgriLife will enlist Texas AgriLife Extension Agents in each EAA region to take responsibility for reaching out to exempt well owners in their counties and making sure exempt well owners have the information necessary to take advantage of RWCP opportunities available in their area.;
- Texas AgriLife will provide an orientation on the EAHCP and the specifics of the RWCP to the Extension Agents in the EAA region by February 15, 2014;

- Texas AgriLife will provide high-efficiency plumbing distribution element and reclaimed water rebate element procedures, BMPs, and other resource materials and assist designated RWCP Extension Agents in implementing these RWCP elements for EA exempt well owners.

Task 3: Technical Assistance

- Texas AgriLife will provide or arrange for the technical assistance to communities, as necessary, to implement the RWCP.
- When necessary, Texas AgriLife will assist EAA regional communities with identifying external funding sources for conservation activities beyond that provided by the EAHCP.
- On an annual basis, Texas AgriLife will calculate the proportional model using Texas Water Development Board (Texas Water Conservation Task Force) BMPs for the water conservation results of various conservation activities.
- Texas AgriLife will report technical assistance requests and results in the quarterly reports.
- Texas AgriLife will support EAA staff in development and submission of annual reporting requirements to U.S. Fish and Wildlife Service as outlined in the EAHCP.

Budget for Implementing 2014 Regional Water Conservation Work Plan: The requested budget for the Regional Water Conservation work plan is \$986,500 (see Table).

| Texas AgriLife 2014 Contract Costs | Funds Allocated for Community Program Implementation | Total Budgeted Funds (Table 7.1) |
|------------------------------------|--|----------------------------------|
| \$200,000 | \$786,500 | \$986,500 |

Monitoring:

- Communities that have elected to contract with the EAA for program implementation will be required to provide an accounting of low flow devices (*i.e.* low flow toilets, and showerheads) that have been distributed to residents.
- Texas AgriLife staff will provide photo documentation of the implementation of the program. EAA staff will periodically accompany Texas Texas AgriLife staff during routine visits of low flow toilet distribution centers.
- Texas AgriLife will report estimated water savings to the EAA.

Science Committee Review: Not applicable to this work plan.

Regional Conservation Monitoring Committee Review: The Regional Conservation Monitoring

Committee will receive a presentation of the 2014 work plan and community assessments when Texas AgriLife has completed its initial 2013 community prioritization and two community assessments (Uvalde and Universal City).

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