



Edwards Aquifer Habitat Conservation Plan

Report of the 2014 Regional Water Conservation Work Group

DRAFT #1  
November 10, 2014

## Table of Contents

<b>Recommendation #1</b> – Implement Comprehensive Water Loss Audits for Specific Businesses and Industries .....	2
<b>Recommendation #2</b> – Implement an Education, Outreach, and Public Relations Strategy.....	3
<b>Recommendation #3</b> – Explore Partnerships with Land Trusts.....	4
<b>Recommendation #4</b> – Encourage Conservation During Peak Demand.....	5
<b>Recommendation #5</b> - Work with Utilities and other Permit Holders to Change Landscape Design Practices.....	6
<b>Recommendation #6</b> – Target Conservation Measures to Producers that Use Flood Irrigation...	7

## **Recommendation #1 - Implement Comprehensive Water Lost Audits for Specific Businesses and Industries**

### Summary:

- Provide water loss audit services to the following organizations and industries:
  - Hotel/Motel Association
  - Universities
  - Hospitals
  - Texas Aggregate and Concrete Association
  - San Antonio Manufacturers Association
  - Association of General Contractors
  - Laundromats
  - Car Washes
  - Large event centers

### How does available/conserved water become water for the Ground Water Trust?

#### Pros:

#### Cons:

#### Implementation and Funding:

- Target those associations and organizations that have members with individual permits to determine how much potential water is available.

## **Recommendation #2: Implement an Education, Outreach and Public Relations Strategy**

### Summary:

- Develop an outreach program to ensure all potential participants are aware of the RWCP.
- 1) **Public Relations:** Develop an award program for future and current RWCP participants that provide local, state and national recognition.
    1. Partnership award: this concept can be based on various “membership appreciation” programs
      - a. Like the EPA’s Partnership Program (<http://www.epa.gov/WaterSense/partners/>)
      - b. Participation in the RWCP makes you a part of a list of members. A profile is produced to supply contact information and details about the conservation initiatives in place as well as the level of commitment into the Ground Water Trust.
      - c. At the end of the year, when total savings has been determined, the partner with the most savings is presented with an award of their achievement.
      - d. May be more appropriate for municipal participants.
    2. Environmental Stewardship award can be created as a program with-in the RWCP to provide non-financial compensation for committed water.
      - a. Similar to the TCEQ’s Environmental Excellence Award (<http://www.teea.org/about/>)
      - b. An annual program that provides an award/sponsorship for conservation commitment within industry/commercial permit holders.
      - c. Requirements will be to submit plan of conservation investment and commitment of water into the Ground Water Trust.
      - d. All committed water will be accepted but the top 3 will be provided an award (all will be recognized on the web and given adequate spotlight).
  - 2) **Education/Outreach:** Develop an education and outreach strategy to educate potential participants (irrigators and businesses) on the role of spring flow protection measures in the Edwards Aquifer Habitat Conservation Plan program.

### Pros:

- Can provide incentive for participation - positive public relations.
- Can make the RWCP better known and potentially provide us with more participation in the program.

### Cons:

### Implementation and Funding:

- Contract with a Public Relations consultant with RWCP funds.

### **Recommendation #3 - Explore Partnerships with Land Trusts**

#### Summary:

- Determine which existing “Land Trusts” currently enroll land that is part of the Edwards Aquifer contributing; recharge and artesian zones or that may have Edwards wells.
  - Texas Agricultural Land Trust
  - Texas Land Conservancy
  - City of San Antonio: Edwards Aquifer Protection Program Conservation Easement – Water rights stay with the property and can only be used in direct support of Grantor activities.
- Research the possibility of receiving credit for previously enrolled land.
- Explore the opportunity to get credit to the Regional Water Conservation Program for existing land trusts with water rights.

How does available/conserved water become water for the Ground Water Trust?

Pros:

Cons:

Implementation and Funding:

## **Recommendation #4 – Encourage Conservation During Peak Demand**

### Summary:

- Water use during peak demand is mainly attributed to outdoor water use and weather patterns (drought). In order to curb water use during peak demand, this recommendation explores specific conservation practices that are geared towards outdoor water use. Outdoor water use can be quantified by the amount of increased water use in comparison to the winter average water use.
- Encourage conservation during peak uses through incentives, rebates, alternate water sources, etc.
  - Incentives –
    - Develop creative ways to incentivize landscape irrigation customers to reduce or stop irrigation. Practices may include the reduction of landscape and turf areas.
    - Require or incentivize landscape and athletic field irrigation system checks in order to find problems and improve irrigation efficiency.
    - Assess recreational water use facilities and offer conservation incentives.
  - Disincentives
    - Increase rates through conservation pricing during peak demand to cover increased water distribution energy costs.
    - Drought Ordinances.
  - Distribution System efficiency improvements – Increase leak detection efforts during peak demand.

### How does available/conserved water become water for the Ground Water Trust?

### Pros:

### Cons:

### Implementation and Funding:

**Recommendation #5: Work with Utilities and other Permit Holders to Change Landscape Design Practices**

Summary:

- In conjunction with landscape design professional associations, work with municipal utilities and other permit holders to encourage conservation practices for existing and future landscapes.
- Program would be based on commercial (or large residential property) participation within the distribution area of any municipal water supplier.
- Rebate programs would be provided to the customer of water purveyor and realized savings can be split between permittee and Ground Water Trust.

How does available/conserved water become water for the Ground Water Trust?

Pros:

- Can drastically reduce outdoor irrigation use - 25% of annual municipal use.
- Can use existing RWCP funding.

Cons:

- Lack of incentive for industry.
- Lack of incentive to permit holder (municipality)
- Conservation measures exceed program budget (\$950/acre-ft.)

<b>Conservation Measure<sup>1</sup></b>	<b>Estimated Water Conserved Annually (Acre-Ft per participant)</b>	<b>Estimated First Year Cost (\$ Per Acre-Ft)</b>
Rainwater Harvesting	.55	\$45,500
“Smart” Rain Sensors	.49	\$4,100 – \$12,250
Xeriscaping	.46	\$20,400 - \$86,950

\*Information gathered from TWDB, U.S. National Climate Data Center, and Papers of the 2008 Applied Geography Conference

Implementation and Funding:

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<sup>1</sup> Estimate water conserved and costs are based upon information from references above and assumed amounts of landscaped property.

## **Recommendation #6 - Target Conservation Measures to Producers that Use Flood Irrigation**

### Summary:

- Determine irrigators using flood irrigation practices in Medina, Uvalde, Bexar and Hays Counties.
  - 65 Irrigators reported furrow/flood irrigation in Uvalde = 5,592 acres
  - 8 Irrigators reported flood or furrow irrigation in Uvalde = 783 acres
- Research potential cooperative funding for infrastructure.

### How does available/conserved water become water for the Ground Water Trust?

#### Pros:

- Installation of Low Pressure in Canopy (LPIC), Low Energy Precision Application (LEPA) Center Pivots or linear type sprinkler irrigation systems can demonstrate an irrigation efficiency of 90%-95%.
- Saves in energy cost and labor.

#### Cons:

- 142 acre linear Irrigation System (Low Pressure in Canopy) costs approximately \$131,400 (\$925 per acre). At budget limit of \$950 per acre-foot the return must be 138 acre-ft. into the Ground Water Trust.
- 162 acre center pivot costs \$71,115 (\$440 per acre). At a budget limit of \$950 per acre-foot the return must be 75 acre-ft. into the Ground Water Trust.

### Implementation and Funding

#### Background

- 700 Irrigators total; 415 pumped water.
- 478 in the San Antonio Pool; 222 in the Uvalde Pool.
- 383 Irrigators pumped and are subject to Critical Period Management rules (32 irrigators not subject to CPM).