Edwards Aquifer Habitat Conservation Plan

Report of the 2014 Regional Water Conservation Program Work Group

January 14, 2015

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To: Edwards Aquifer Habitat Conservation Plan Implementing Committee

From: Regional Water Conservation Program Work Group

Date: January 15, 2015

At their September 18, 2014 meeting, the Edwards Aquifer Habitat Conservation Plan (EAHCP) Implementing Committee created the Regional Water Conservation Program (RWCP) Work Group, appointing:

- Colette Barron Bradsby, Texas Parks and Wildlife Department (TPWD)
- Tyson Broad, Sierra Club
- Karen Guz, San Antonio Water Systems (SAWS)
- Charlie Hickman, Guadalupe-Blanco River Authority (GBRA)
- Rick Illgner, Edwards Aquifer Authority (EAA)
- Randy Luensmann, The City of Universal City
- Richard Szecsy, Texas Aggregate and Concrete Association (TACA)
- Dianne Wassenich, San Marcos River Foundation (SMRF)

The Work Group held five meetings from October through December 2014 and elected Ms. Barron Bradsby as Chair and Ms. Wassenich as Vice-chair. Meetings were held as open meetings where attendees actively participated in the discussion and provided valuable input. The agendas and minutes from each meeting are included in the Appendix.

The EAHCP Regional Water Conservation Program (RWCP) is administered by the Edwards Aquifer Authority and calls for 20,000 acre-feet of permitted or exempt Edwards Aquifer withdrawals to be conserved, where one-half or 10,000 acre-feet of the conserved water is to remain in the Aquifer, un-pumped, for 15 years as part of the Edwards Aquifer Groundwater Trust (Groundwater Trust)[1].

The purpose of the RWCP Work Group was to make recommendations on additional ideas and methods to secure 10,000 acre-feet of permitted or exempt Edwards Aquifer water to meet the requirements of the EAHCP and the Incidental Take Permit (ITP). The Work Group recognized that the 10,000 acre-feet goal is a floor for the RWCP and that opportunities exist for conservation of additional water to support the EAHCP. Also acknowledged was the need for the EAA, with the Implementing Committee's approval, to adapt the RWCP program components and consider reallocation of funds within the RWCP budget to support specific initiatives.

[1] Edwards Aquifer Groundwater Trust – Water that has been reserved and will not be pumped from the Edwards Aquifer in order to benefit spring flow levels that support the habitat of the Covered Species.

Throughout their discussions, the Work Group identified factors and circumstances that may be barriers to participation in the RWCP. These include:

1. Drought Conditions and Required Commitment: Municipal water providers have concerns about maintaining supply to meet peak demand during drought conditions. Because of these pressures, municipalities are reluctant to commit any water saved through conservation efforts to the RWCP for the full 15-years. Industrial users also share these concerns.
2. Lack of Administrative Resources in Small Municipalities: Many small municipalities have expressed that they lack the necessary administrative resources to support their initial and continued water conservation efforts.
3. Finite Program Budget and Payment for Participation: In the EAHCP budget, the RWCP is allocated approximately $19 million. This is a finite amount. With its goal to conserve 20,000 acre-feet, this equates to an average of $950/acre-foot of water conserved. Based upon a 10,000 acre-feet goal to be committed into the Groundwater Trust, one-half of the total volume conserved, this budget results in any participant receiving a one-time fixed payment of approximately $1,900/acre-feet for the amount of water committed for 15-years. It is not clear how competitive this number is compared to other leasing options in either the short or long-term.
4. Lack of Knowledge about the RWCP: Many permit holders - municipal, industrial, and agricultural - simply are not familiar with the RWCP or even the EAHCP. While the RWCP has provided targeted intensive outreach to small municipalities, there has not been a widespread EAHCP outreach program or campaign to educate the Edwards Aquifer region about the value and benefits of the RWCP. Education and motivation are critical for participation in all EAHCP initiatives.

Overall, the Work Group recommended seeking the participation of all Edwards Aquifer users – municipal, industrial, and agricultural - in the RWCP. The Work Group stressed the importance of understanding what may attract or detract specific user groups. Conservation terminology, real and perceived risks, and the range of monetary and non-monetary benefits were identified as factors that influence participation across user groups.

In relation to the identified concerns and barriers, the Work Group developed nine consensus recommendations, with the majority centered on initiatives that can be implemented in a relatively short period and that may provide immediate benefit to the program. A few recommendations require a longer development phase but are anticipated to help achieve RWCP objectives. New to the RWCP is a proposed outreach campaign and a program that targets annual commitments to conserve historically unused permitted water. The recommendations also include tweaking existing RWCP program elements by adding flexibility in areas such as length of commitment and amount of compensation. The Work Group also recommended providing non-monetary incentives to participants, such as positive public relations and media exposure,

EAHCP conservation awards, and nominations for national, state, and local conservation or environmental stewardship awards.

Finally, the Work Group recognized that the United States Fish and Wildlife Service must be assured that these recommended programs are reasonably certain to lead Edwards permit holders to enroll water into the Groundwater Trust. Casting a wide net to attract all water users may be necessary to achieve the highest level of RWCP participation. High participation may also necessitate adjustment of the RWCP budget. The Work Group fully supports a robust water conservation program and believes that its recommended initiatives may prove beneficial to endangered species and regional water supplies.

These recommendations will be presented to the Implementing Committee at its meeting on January 15, 2015. If approved, the recommendations will then be provided to the Edwards Aquifer Authority for final consideration and potential implementation at their discretion.

Sincerely,

Colette Barron Bradsby, Chair
2014 Regional Water Conservation Program Work Group

Executive Summary

In the fall of 2014, the Edwards Aquifer Habitat Conservation Plan (EAHCP) Implementing Committee created the Regional Water Conservation Program (RWCP) Work Group to make recommendations to the RWCP to ensure that 10,000 acre-feet of water is secured into the Groundwater Trust so that the requirements of the EAHCP and the Incidental Take Permit are met. During their five meetings, the Work Group discussed recommendations that addressed the barriers to participation in the RWCP. These recommendations include the following:

1. Implement an outreach program to ensure all permit holders are informed about the RWCP.
2. Payment for conservation of historically unused permitted water.
3. Offer incentives to specific business and industries for their excess capacity.
4. Build flexibility in the participant agreements with municipal and industrial users.
5. Provide settlement opportunity for permit holders who over-pump their permit.
6. Offer incentives and assistance to encourage municipalities to promote landscape conservation, especially during peak demand.
7. Create a conservation incentive program for exempt well owners.
8. Explore partnerships with land trusts.
9. Target conservation measures to producers that use flood irrigation.

The Work Group recognized that the United States Fish and Wildlife Service must be assured that recommended actions lead to enrollment of water into the Groundwater Trust. To achieve the high participation, a wide net must be cast to attract all water users. The Work Group fully supports a robust water conservation program.

Recommendation 1: Implement an Outreach Program to Ensure all Permit Holders are Informed about the RWCP

This recommendation is a priority as it supports all initiatives that follow in this report. Work Group members commented that the Regional Water Conservation Program (RWCP), as it stands, focused its outreach to a selected group of Edwards users, namely small municipalities and utilities. Neither the RWCP nor the EAHCP as a whole has engaged in widespread education or marketing related to participation opportunities and benefits. Therefore the Work Group strongly recommends further investment in reaching out to not only municipal water purveyors, but all permit holders in the region by providing specific participation options for each unique user group and marketing available incentives and benefits. An outreach program can be supported by EAHCP stakeholders through their existing public relation and media programs as well as by funds allocated for the RWCP or funds supporting broader EAHCP outreach programs. The Edwards Aquifer Recovery Implementation Program routinely relied upon existing stakeholder resources to maximize outreach and minimize costs.

Summary:
The Work Group recommends the development of an education and outreach program to inform potential participants (irrigators, municipalities, businesses and exempt well owners) about the RWCP and its role in improving water use efficiency and in supporting springflow and species protection as identified in the Edwards Aquifer Habitat Conservation Plan (EAHCP) program.

This recommendation was identified by the Work Group as a relatively easy to implement, low-cost solution, to help gain interest in water conservation and promote the benefits of RWCP participation. Additionally, an education and outreach program could articulate the costs and benefits of conservation actions. The EAHCP must clearly articulate the benefits of the RWCP to permit holders (and other water users) and remove any misconception that participation in the RWCP reduces property rights. The RWCP actually makes additional water available for use. Permit holders need to understand that half of newly conserved water would be immediately available for use by the permit holder, and the other half would be placed temporarily in the Groundwater Trust with that latter half being released later, after an agreed term, and made available for the participant to use at that time.

Strategies Include:

1. Participant Profile Features: This strategy would feature and profile RWCP participants and tell the story of real world water conservation and the benefits to both water users and the EAHCP The feature may come in the form of press articles, trade association periodicals, web site postings or any other number of media vehicles.
2. Produce targeted outreach communications to specific user groups: This strategy would employ various communication forms such as electronic and hard copy brochures, press releases, feature stories, and social media postings to attract permit holders and inform them of participation options. These periodic or regularly scheduled communications would provide enough detail to demonstrate how specific aspects of the RWCP programs can satisfy each permit holder's specific needs. These

communications could also help address any perceived disincentives for RWCP participation, i.e., a "use it or lose it" mentality if water is provided under take or pay contracts or a fear of a reduction in property rights.

3. Hold informational workshops for permit holders: Regular workshops would be designed to educate permit holders of the opportunities available in the RWCP. Through this effort the program would build an email list of interested participants of the program and create networking opportunities between user groups and between users and RWCP personnel.
4. Partnership Award: Creating an EAHCP/RWCP Award that identifies permit holders that have enrolled in the program and have reached or exceeded their conservation goals would not only create positive public relations for the participant and the RWCP but also help bolster the ethic of conservation in the Edwards Aquifer region.

Benefits of this Recommendation:

- This low-cost recommendation could make the RWCP better known and ultimately provide the EAHCP with more water in the Groundwater Trust. Communications and media resources of EARIP and EAHCP stakeholders can be tapped to support outreach.
- Non-monetary incentives for participation, such as positive public relations and media exposure, could benefit many permit holders, especially industrial/commercial users. This could increase the diversity of permit holders enrolled in the RWCP.
- Much of the public outreach and education would not only help highlight potential benefits to each permit holder but also bolster the common ethic of conservation throughout the region.

Challenges to Implementation:

- This recommendation may require news media participation to make awards and features more "prestigious" and ultimately more coveted.

Funding:

- Outreach for the Regional Water Conservation Program is an unanticipated cost of the program, but the Work Group believes it is important to have a robust marketing program for the success of the effort. The Work Group also recognizes that any money spent on outreach will reduce implementation funds for conserving water.

Recommendation 2 – Pooling Historically Unused Permitted Water for Annual Forbearance

The Work Group recognized an opportunity to create a program that aggregates historically unused permitted water (sometimes called "surplus") from Edwards permit holders. The EAHCP groundwater model assumes that all permitted water is used, but historically, all permitted water is not used; this initiative is a valid method for documenting a reliable amount (percentage) of unused water. This recommendation provides permit holders the opportunity to annually enroll a percentage of the estimated unused water into the Groundwater Trust. A standard analysis of unused water over a selected period of record would be used to identify potential water for this initiative.

The Work Group recognized that this recommendation could be criticized as a "Free Rider" recommendation, in that permit holders would obtain a benefit – financial compensation – for no new groundwater conservation measures. To address the "Free Rider" criticism, issue, the Work Group also recommended enrolling participants in a water conservation program, such as high efficiency fixture or leak detection and repair programs.

Summary:
This recommendation would target permit holders that historically have not used their full amount of permitted water. The process would be to annually establish an estimate of a potential surplus in participants' permits and commit a conservative amount (percentage) of that water into the Groundwater Trust in exchange for payment. Each year, when the program participant submits its Annual Use Report, EAA could pay, pro rata, the participant for their surplus water that achieves the required 10,000 acre-feet into the Groundwater Trust and that does not exceed the funds available in the RWCP budget. If successful, the program could also target water beyond the initial 10,000 acre-feet.

As a requirement of participation, program participants would report the amount of water that they conserve every year. Also, as a cautionary note, the Work Group recognized that a short-term commitment does not offer the same reliability in spring protection as a longer-term commitment.

Steps to Implementation:
The following describes, in general, the process to implement this recommendation.

- Analyze use to identify permit holders that historically do not use all of their authorized water.
- Establish payment rate for the "surplus" committed water.
- Establish contracts with willing permit holders to participate.
- Conservatively, estimate the amount of unused water for the year that can be placed in the Groundwater Trust.

Benefits of this Recommendation:

- Would encourage the implementation of additional water conservation activities.
- Would provide a permit holder a financial incentive to participate in the RWCP with little to no "sacrifice" in water use.
- Would provide an incentive to conserve water surplus water each year rather than selling it for retail revenue or spot leasing it for income.
- Would encourage users with multiple sources of water to maximize their non-Edwards supplies.
- When the ASR is full and the ASR pooling program is not accepting additional water, this new forbearance conservation program may attract the permit holders who otherwise would have committed water to the ASR pooling program.

Challenges to Implementation:

- Must identify the appropriate payment amount for surplus water and for conservation activities.
- Because this initiative is similar to the ASR pooling program, it must be clearly distinguished from it.
- The amount to pay back to the Initial Commitments Contracts will vary year to year.

Funding:

- As stated, the funding for the RWCP is a finite amount. However, the EAA should fully explore various payment structures to find the most successful approach to implementation, such as offering first in line customers a pro rata share of a capped dollar amount.

Recommendation 3- Offer Incentives to Specific Business and Industries for Excess Capacity in Individual Permits.

The Work Group identified that some industrial permit holders use water in amounts that vary from year to year, depending upon a variety of factors such as economic activity, climate, and efficiency improvements. These permit holders, such as ready mix concrete producers and aggregate quarries, currently recycle and reuse their Edwards Aquifer water back into various production processes, which may result in excess water capacity. These businesses have several options for leasing or otherwise using the excess water, but financial gain from leasing the water may not create much value to the businesses. Positive public relations and marketing of the specific industries and businesses may have higher value. To enroll these permit holders into the RWCP, the Work Group recognized that additional non-monetary incentives should be offered to garner their participation.

Summary:
This recommendation would assist businesses and industries that have Edwards Aquifer permits to identify their existing and potential excess or surplus water capacity. A water loss or water use efficiency evaluation would be used to define potential available water. Initial efforts, such as informational presentations, would focus on trade associations with permit holder members, such as the Texas Aggregates and Concrete Association (www.tx-taca.org).

Additionally, participating businesses and industries and their trade associations would be offered avenues for positive public relations assistance or positive media incentives, such as nominations of participating businesses for nationwide, statewide, or local conservation awards, such as the Texas Water Development Board's Blue Legacy Award. Participating businesses would also receive a reduction in their aquifer management fees on the amount of enrolled conserved water.

Steps to Implementation:

- Approach interested trade associations to inform them of the EAHCP program and opportunities to benefit from participation in the RWCP. Content and message of any presentations or materials should be consistent.
- Use networking to develop relationships with different organizations and businesses.
- Once a business agrees to participate, the RWCP would develop an agreement with the participant that includes details about the following:
    - Determining existing excess water capacity that would be committed to the Groundwater Trust;
    - Conducting evaluations to identify potential excess water capacity, (if needed);
    - Determining when and how much potential excess water capacity can be committed to the Groundwater Trust; and
    - Define the suite of positive public relations tools for both the business and trade association.

Benefits of this Recommendation:

- Since the industrial water permit holders might not increase their water use in drought conditions, their risk level associated with the commitment of conserved water to the Groundwater Trust during drought may be less than the risk level associated with a municipal permit holder's commitment of conserved water.
- Non-monetary incentives may be preferred over monetary compensation for some businesses.
- Participants gain more media visibility in Edwards Aquifer region and become part of the water conservation community and conversation.

Challenges to Implementation:

- May be difficult to quantify water saved; not all individual permit holders have meters.
- Water use evaluations by themselves do not equal conserved water. Infrastructure repairs or efficiency improvements or installation of new meters are needed for savings.
- Businesses may limit their participation according to the growth in their business plans.

Recommendation 4 – Build Flexibility in the Participant Agreements with Municipal and Industrial Users

The Work Group identified early on that a lack of flexibility within the program contracts and within funding options were barriers to participation. Industrial and municipal water users participating in the Work Group commented that, in particular, a 15-year commitment term could be too risky for water suppliers and businesses.

Summary:
The current requirements of the RWCP include committing one-half of the conserved water in the Groundwater Trust for 15-years at an average value of $1900/ac-ft[2]. Through this recommendation, the RWCP would offer shorter term agreements, similar to leases, with funding in proportion to the term paid as a one-time fixed payment only. Full funding is achieved with a 15-year term. For illustration purposes only, a flexible structure might look like the following[3]:

Term (years)	$/ac-ft.
3	$380
5	$633
7	$886
10	$1,266
15	$1,900

Also, through this recommendation, the RWCP could seek sources of additional funding, such as state funding, for a permit holder to supplement its resources for conservation measures. For a commitment of water, the RWCP might assist a participant in efforts to secure water conservation funds from other sources such as TWDB funds or grants from non-profit organizations

Benefits of this Recommendation:

- A decrease in term length is a decrease in risk to municipal and industrial permit holders and could temper reluctance to commit to the program by removing the identified barrier of the 15 year term.
- Flexibility in terms could result in more agreements with municipal and industrial permit holders. The program may be able to attract more water in smaller increments and can use extensions to provide longer term security.

Challenges to Implementation:

[2] $19 million budget with a goal of committing 10,000 acre-feet into the Groundwater Trust ($19,000,000/10,000AF=$1900).
[3] This example of a flexible payment structure was calculated using the current payment structure of $1900/ac-ft for conserved water for a 15-year commitment or approximately $126.6/ac-ft for each year. Therefore, a 3-year term would be $380/ac-ft, a 5-year term would be $633/ac-ft and so on.

- If various term-length agreements are made with new participants, EAA would need to evaluate the impact of this variability in the "payment" of the initial contributions, per the Initial Commitment Contracts with SAWS, City of San Marcos, and Texas State University.
- There is no guarantee that efforts to secure additional funding from sources such as TWDB and grant programs will be successful.
- Multiple renewals of short term leases require higher administrative costs than one-time executions of long term leases.
- While the program has potential for long term conservation, it will be difficult to predict as it will depend upon renewal of short term leases, and renewals are not guaranteed.

Recommendation 5 – Utilize Settlement Negotiations for Permit Holders Who Over Pump

The EAA has historically offered negotiated settlements to some permit holders who exceed their legal annual permit. These settlements have provided a way for a permit holder to invest the assessed fine amount in water conservation efforts that will help them use less water in the future. This precedent provides an opportunity for the Groundwater Trust. The settlement process could be modified to steer the permit holder to permanent conservation opportunities available through the Regional Water Conservation Program.

Permit holders who exceed permit could be offered an analysis of their conservation options with the RWCP consultants who could advise EAA staff and the permit holder on conservation options. If analysis indicates that there is a water efficiency investment that could permanently reduce water use in the future, the permit holder might be an excellent candidate for a negotiated settlement. The onus would be on the permit holder to demonstrate that water conservation opportunities exist in order to have a negotiated settlement in lieu of paying the full fine amount assessed.

Permit holders have two motivations to choose investment in conservation over paying the fine. One benefit to permit holders is the opportunity to spend the money that would have been paid to EAA as a penalty on conservation investments that benefit their business or utility. A second benefit is that the permit holder could access additional funding through the RWCP for further conservation improvements. Adding together the investment that otherwise would have gone to penalty fees and the existing incentives could make a conservation investment an attractive and economical option.

There are a wide range of options for investment of the fine money into conservation efforts. Leak detection and repair, retrofit of high flow fixtures, reduction of the scope of automatic irrigation systems, or upgrades to industrial and commercial processes that use water are all excellent options. If there are large industrial or commercial customers as water users under the permit, there are case studies that could be used to help document the potential savings.

The committee suggests that the EAA consider participation in the Regional Water Conservation Program be the only mechanism available for a negotiated settlement of fines by permit holders.

<u>Steps to Implementation:</u>

1. Permit holders who exceed their available permit will be notified of the opportunity to explore long-term conservation options.
2. RWCP representatives will work with the permit holder to assess conservation opportunities. This analysis will include determining if the permit holder options could include using any existing conservation incentives or cost-share programs.
3. The permit holder would make a proposal to the EAA staff for a negotiated settlement in lieu of paying the full fine amount.

4. If the EAA and the permit holder are in agreement, a contract would be negotiated to implement the conservation initiatives and identify how much water would be contributed to the Groundwater Trust as a result.

Benefits of this Recommendation:

- The RWCP would provide a positive and permanent solution to over-pumping from permits.
- The program provides a mechanism to interest permit holders in a conservation opportunity analysis.

Challenges to Implementation:

- Both the EAA and permit holders will have to be confident that the amount of water saved through conservation will be sufficient to prevent from over-pumping after making a commitment to the Groundwater Trust.
- Staff will need to analyze the length of the permit contribution for each project and how this relates to the credit against the over-pumping fee. It is expected that the best credits will be provided for efforts and agreements that contribute to the trust for the full fifteen years of the permit.
- It will be important to ensure that this program is not a reward for over-pumping.

Recommendation 6 – Offer Incentives and Assistance to Encourage Municipalities and Others to Reduce Automatic Spray Irrigation (Using Potable Water)

The Work Group identified that water use during peak demand is mainly attributed to outdoor water use and weather patterns (drought). Unlike existing RWCP conservation measures, this recommendation explores specific conservation practices that are geared towards outdoor water use. There is a substantial amount of existing information collected from a number of utilities to support outdoor water conservation activities. Water saved through outdoor water conservation activities can be quantified by the change over time in summer water use (peak-demand).

The Work Group identified that many of the strategies that follow may require budget adjustment in the RWCP or may exceed currently available funds. Yet, it was decided that these concepts should be recommended to provide various options for successful fulfillment of the RWCP's goals.

Summary:

Through conversations with municipalities throughout the region, one major deterrent for participation was the fear of not meeting customer demand, or the fear of not having the proper staff necessary to support this type of conservation program. This recommendation addresses these concerns and explores all options for limiting outdoor water use during peak demand by exploring how the RWCP could negotiate incentives for participation into the program.

This recommendation works in conjunction with landscape design professionals, municipal utilities, and other permit holders to encourage conservation practices, such as changing the design of automatic irrigation systems, for existing and future landscapes. Focus would be on commercial (or large residential property) participation within the distribution area of any municipal water supplier or an industrial permit holder.

This initiative can be implemented directly with a permit holder and indirectly with the customers of permit holders. Through this initiative, the RWCP would provide the permit holder (municipal utility) funds to sponsor all, or part, of a specified water conservation activity based on an assumed water savings for the activity. The permit holder, in turn, would provide the funds to the customer to implement the water conservation activity. The water saved through this activity would be split between the permit holder and the Groundwater Trust. This would ultimately provide the permit holder with additional water at little or no cost.

Strategies Include:

1. Encourage conservation during peak demand periods: This strategy provides assistance through analysis of irrigation systems for public or for private large-scale users. Through a careful analysis of existing spray irrigation systems on public or private lands, changing an irrigation system to a point source drip irrigation system, replacing grass with other plants and materials or to ensuring a spray system focuses on the needed plants, water savings can be realized.

2. Offer conservation education and infrastructure to reduce demand: This strategy is intended to work with a municipality concerned about complying with their permit during peak demand. The RWCP would provide assistance in identifying and installing BMP's that reduce outdoor water usage on private and municipal land (parks, sports fields, etc.). These BMP's could be identified in the EAA's Groundwater Conservation Plan Best Management Practices and be funded fully, or in part, by funds (average $1900/acre-foot) associated with water committed to the Groundwater Trust.
3. Offer administrative and enforcement assistance: The RWCP could fund staff to patrol for drought restriction violators and/or manage the administration of enforcement of citations including keeping additional records and answering phone calls during the peak periods.[4] With the financial assistance, (average $1900/acre-foot), the RWCP commits to fund appropriate positions for a negotiated volume of water the permit holder commits to the Groundwater Trust.

The Work Group identified that the estimated first year cost of installation may be prohibitive, but there are other benefits such as improved aesthetic appearances and reduced maintenance costs that should be considered. Ultimately, the water conservation measures implemented in this recommendation will result in water committed to the Groundwater Trust.

Benefits of this Recommendation:

- This strategy can drastically reduce outdoor irrigation use.

Challenges to Implementation:

- The following are identified as fundamental issues with realized savings with each conservation measure:
    - Rain Sensors - They are a good investment but cannot guarantee savings during the worst drought.
    - Rainwater Harvesting- Rainwater harvesting has an excessive payback time.
    - Xeriscaping - Any xeriscape installation must be accompanied by education and/or removal of irrigation systems. Xeriscaping should require little to no irrigation but if the irrigation method stays the same, water use is not likely to change.

[4] There would have to be cooperation by the courts to follow up with citations on violators.

Recommendation 7 – Promote and Enhance the Conservation Incentive Program for Exempt Well Owners

The Work Group recognized the importance of targeting exempt well owners because the RWCP would receive full-credit for water conserved rather that only half-credit received in other instances. It is thought that exempt well users would not find new consumptive uses for the conserved water, therefore water savings from exempt wells may provide long lasting benefits exceeding the term of the Incidental Take Permit.

The total exempt well count is currently 2,633 in EAA's Master database. However, this is not a comprehensive dataset and only represents the wells EAA knows about. EAA staff has estimated there may be in excess of 10,000 exempt wells within EAA's jurisdiction.

Summary:
This recommendation includes a grassroots, community-based marketing initiative to encourage exempt well owner participation in water conservation programs by utilizing shared networks of people and well-regarded organizations.

San Antonio Water System (SAWS) utilized a community-based marketing initiative called "Season to Save" to double the participation in toilet retrofit programs. Non-profit organizations signed simple participation agreements that authorized them to market the program to the target audience of homeowners. The nonprofit organizations that participated in the marketing initiative included the Girl Scouts, Future Farmers of America, 4-H clubs, churches, and homeowner associations. These organizations were offered a defined incentive payment for each individual who applied for and completed the process of replacing a high flow toilet.

The budget for the incentive payments would be part of the expense of implementing the conservation measures. The expenses could be capped for each time period by limiting the time frame or total applicant pool to the target established.

Steps to Implementation:

- Utilize the EAA database to build a mailing and/or email contact list of exempt well owners.
- Develop a package deal that includes a number of conservation measures, such as bathroom kits, grey water catchment/use, rain sensors, or rainwater harvesting systems.
- The package deal would be marketed through nonprofit organizations, such as youth organizations, similar to the SAWS "Season to Save" program. These groups receive a payment for every exempt well owner they get to participate in the program.
- Develop a program specifically for exempt well owners, targeting Hays and Comal counties.
- Explore partnership with AgriLife Extension to build relationships with rural landowners and educate them about the RWCP

Benefits of this Recommendation:

- Exempt well owners do not give up any of their water.

- The Season to Save program doubled the toilet distribution for SAWS during the years when a marketing boost was needed. It was more cost-effective and had a better result than straight advertising. It was also very well received in the community.
- This public relations benefit is particularly important for the EAHCP implementation and the EAA while starting relationships with exempt well owners, resulting in excellent public relations for the EAHCP.
- Would help identify exempt well owners and may provide new information on their water use.

Challenges to Implementation:

- Getting active participation from exempt well owners is challenging since there is not a current list of how many exempt wells exist and no contact information for those who own them.

Recommendation 8 - Explore Partnerships with Land Trusts to Advance Water Conservation

Summary:

Land Trusts operating in the Edwards Aquifer region are currently obtaining development rights and/or actual property in the Contributing, Recharge, and Artesian Zones of the Edwards Aquifer. These properties may have water rights associated, that either have been deeded or leased with the land (thus property of the Land Trust) or remain operational (used by landowner). This initiative is prospective in nature and seeks to add water conservation awareness and implementation in conservation land transactions. Water conservation linked to land conservation may offer long-term benefits exceeding the term of the Incidental Take Permit.

The following is a possible list of Land Trusts to engage:

- 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 related to the easement.
- Texas Agricultural Land Trust
- Texas Land Conservancy
- Guadalupe Blanco River Trust
- Texas Nature Conservancy

Steps to Implementation:

1. Contact currently operating Land Trusts to inform them about the RWCP and explore opportunities to partner.
2. Request a meeting with the City of San Antonio Conservation Advisory Board (CAB) to discuss partnership opportunities (the CAB administers the City's conservation program and Proposition 1 funds[5]).
3. Request that a Land Trust with deeded/leased Edwards water permits consider placing water in the RWCP, either at no cost (but perhaps with non-monetary benefits) or with funding from the EAHCP.
4. Request that a Land Trust currently obtaining property with Edwards permits consider utilizing RWCP funding to obtain the water permit at the same time as the development rights and place all or a portion of the water in the RWCP.
5. Contact land owners with property in Trusts that have retained their water permits, and explore their willingness to enroll water into the RWCP.

Benefits of this Recommendation:

- In initial research with the City of San Antonio, implementing this recommendation would not present any conflicts with their existing conservation easements.

[5] In 2010 the City of San Antonio voters passed a 2005 proposition to add a 1/8-of-a-cent local sales tax in order to purchase sensitive properties over the Edwards Aquifer. Funds are expected to be up to $90 million.

- Land Trusts may share EAHCP conservation goals and be amenable to placing water in the RWCP.
- RWCP may help achieve conservation goals of Trusts and help manage water conjunctively with land.

Challenges to Implementation:

- Difficulty in documenting amount of water available for the Groundwater Trust.
- Difficult to identify which conservation easements have Edwards Aquifer wells.

Recommendation 9 - Target Conservation Measures to Producers that Use Flood Irrigation or any other Antiquated Irrigation Method

Summary:
Within the Edwards Aquifer region, 65 Irrigators reported furrow/flood irrigation in the San Antonio Pool (5,592 acres) and 8 Irrigators reported flood/furrow irrigation in Uvalde Pool (783 acres). Furrow/flood irrigation methods are only approximately 60% effective and an upgrade to Low Elevation Spray Application (LESA), Low Pressure in Canopy (LPIC), Low Energy Precision Application (LEPA), subsurface drip irrigation, Center Pivots or linear type sprinkler irrigation systems can demonstrate an irrigation efficiency of 90%-95%.

LEPA is the most efficient option, but it requires some specific farming practices (circular area) and removes some functionality from the system. For these reasons, LEPA is not always a practical alternative among farmers in the Edwards Region.

LPIC sprinkler drops as high as 5 feet from the ground, which would be inefficient in the climate.

LESA is the system that is most popular in the region. It has sprinkler drops roughly 18 inches from the soil surface. It is not as efficient as LEPA, but it is more efficient than LPIC.

Subsurface drip irrigation is the most efficient irrigation method. One of the advantages of drip irrigation is that it can be installed on irregularly shaped fields. This is an issue for some farmers with more antiquated irrigation systems.

Background Data from 2013:
According to data collected by the Edwards Aquifer Authority, from their 2013 Annual Use Reports, only 415 of the 700 registered irrigators actually pumped water in 2013. Of the 700, 478 are located in the San Antonio Pool, and 222 are found in the Uvalde Pool. Of the 415 irrigators who did pump in 2013, only 383 are subject to critical Period Management (CPM) rules (32 irrigators were not subject to CPM).This represents the number of potential participants for this initiative.

Steps to Implementation:
The RWCP should contact permit holders still utilizing flood/furrow irrigation and offer to provide funding to install Low Elevation Spray Application (LESA), Low Pressure in Canopy (LPIC), Low Energy Precision Application (LEPA), subsurface drip irrigation, Center Pivots or linear type sprinkler irrigation systems, in exchange for water being committed to the groundwater trust. Permit holders with the largest amount of acres irrigated by flood/furrow methods should be contacted first.

Additionally, the RWCP may need to find matching funds to match EAHCP funds to install additional irrigation methods that increase water efficiency on the farms. Natural Resource Conservation Service (NRCS) has funding opportunities available for irrigators and governmental entities that assist in conserving natural resources. This strategy will require

EAHCP staff to work closely with NRCS because they will approve the systems and ensure that they do, in fact, conform to specification and provide the desired level of efficiency.

Targeting irrigators with various irrigation systems will provide a larger number of potential participants. Irrigators with old, inefficient high-pressure irrigation systems could include old pivots that would benefit from a retrofit to more efficient, modern improvements. Efficiency gains would not be as great as going from flood to LESA, but the costs would be a lot less, because of the infrastructure like pipelines and electric lines being currently in place.

Benefits of this Recommendation:

- Reduces irrigators' energy cost and labor while saving water
- With EAHCP matching other grant funds, some irrigators may be able to participate in cost-share water conservation programs that were previously unaffordable to them

Challenges to Implementation:

- The price of many of the high-efficiency irrigation systems available exceed the price per acre-foot the RWCP budget allows for a realistic return of water into the Groundwater Trust.[6]
- EAA has a base conversion program for irrigators, which allows irrigators to convert their base water permits into an unrestricted permit after the installation of a center pivot, or any other water conservation equipment. After the conversion process an irrigator can place unrestricted water permits into the water market if they choose to do so. This may be a more attractive option than participating in the RWCP. This is a risk to EAA that irrigators will sell their conserved water after it is converted to unrestricted.
- Reasons for not having a center pivot may vary due to irregular shape of field or possible utility line obstructions.
- There may not be many irrigators using these methods and exact incentives to increase efficiency have not yet been identified

[6] For an irrigator with 140 acres of irrigated farm land, it is reasonably certain that the irrigator would use approximately 280 acre-feet annually. By conserving 84 acre-feet when upgrading to a Low Pressure in Canopy irrigation system, which costs about $130,000, the EAHCP would pay $79,000 and receive approximately 42 acre-feet into the Groundwater Trust.

APPENDIX

Work Group
Charge

2014 Implementing Committee

Regional Water Conservation Program Work Group

Charge:

The Edwards Aquifer Habitat Conservation Plan (EAHCP) calls for the Regional Water Conservation Program to conserve 20,000 acre-feet 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 acre-feet) will be committed to remain in the Aquifer un-pumped, but still owned by participating permit-holders, for 15 years to benefit springflow levels and to contribute to species protection. The other one-half of the conserved water will remain available to the participating entity for use.

To ensure that the benefit from this program was reasonably certain to be realized, the San Antonio Water System (SAWS), City of San Marcos, and Texas State University provided a loan of 8,400 acre-feet through the use of initial commitment contracts.

The purpose of the 2014 Implementing Committee Regional Water Conservation Program (RWCP) Work Group is to make recommendations to the Implementing Committee for ultimate consideration by the Edwards Aquifer Authority on additional ideas and methods to secure the 10,000 acre-feet of permitted or exempt Edwards Aquifer water to the groundwater trust in order to meet the requirement of the Incidental Take Permit.

Organization:

Members include the following: an EAA representative (*Rick Illgner/ Javier Hernandez*), a Large Municipality representative (*Karen Guz*, SAWS), Small Municipality representatives (Randy Luensmann, Universal City), an Environmental Group representative (*Dianne Wassenich*), an Industrial representative (*Dr. Richard Szecsy,* Texas Aggregate and Concrete Association), a representative from another non-profit organization (*Tyson Broad* – Sierra Club), and at-large representatives, (*Colette Barron Bradsby* – Texas Parks and Wildlife Department and *Charlie Hickman*, Guadalupe-Blanco River Authority).

Chair and Vice-chair will be selected by Work Group members.

First Meeting and Meeting Frequency:

The Work Group shall hold its first meeting during the week of October 13, 2014 and, to the extent necessary and reasonably feasible, will meet every other week through the week of December 15, 2014. The Work Group will hold five meetings. Presentations of recommendations to the Implementing Committee will occur on January 15, 2015.

Agendas

NOTICE OF OPEN MEETING
Available at eahcp.org

As requested by the EAHCP Implementing Committee, the 2014 Regional Water Conservation Program Work Group has been formed and has been constructed of representatives from throughout the Edwards Aquifer Region; a meeting of the **2014 Regional Water Conservation Program (RWCP) Work Group** of the Edwards Aquifer Habitat Conservation Plan Program is scheduled for **Wednesday, October 15, 2014 at the offices of the Edwards Aquifer Authority, located at 900 East Quincy Street, San Antonio, TX. The meeting will start at 9 a.m.**

Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Baron-Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

1. Call to Order and Introductions of Work Group members (Attachment 1).

2. Public Comment.

3. Nomination and election of the Work Group Chair and Vice-chair.
   Purpose: To designate a standing chair for the RWCP Work Group meetings.
   Action: To unanimously elect a chair for the Work Group

4. Presentation of Work Group charge (Attachment 2).
   Purpose: Presentation of the work group charge to the RWCP Work Group.
   Action: To approve Work Group charge.

5. Determination of Work Group meeting schedules, dates/locations, and deliverable format (Attachment 3 and 4).
   Purpose: To establish a schedule to result in a presentation of recommendations to the Implementing Committee by January 15, 2015.
   Action: To approve Work Group schedule and deliverable format.

6. Presentation on the background and status of the RWCP.
   Purpose: To review the goals and issues associated with the program to date.
   Action: No action necessary.

7. Discussion on additional information needed by Work Group members.

Purpose: To identify any additional information needed by the Work Group that would assist in their Charge.
Action: To provide a list of information/resources related to the RWCP programs for HCP Staff to prepare.

8. Future Agenda Items:

9. Questions from the Public.

10. Adjourn.

NOTICE OF OPEN MEETING
Available at eahcp.org

As requested by the EAHCP Implementing Committee, the 2014 Regional Water Conservation Program Work Group has been formed and has been constructed of representatives from throughout the Edwards Aquifer Region; a meeting of the **2014 Regional Water Conservation Program (RWCP) Work Group** of the Edwards Aquifer Habitat Conservation Plan Program is scheduled for **Wednesday, October 29, 2014 at the San Marcos Activity Center (adjacent to the Public Library), 501 E. Hopkins St, San Marcos, TX. The meeting will start at 10 a.m.**

Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

1. Call to Order.

2. Public Comment.

3. Receive report from the Program Manager on general topics related to the Regional Water Conservation Program.
   - Department of Defense
   - Initial Commitment Contracts
   - Texas Water Development Board's water audit program.

4. Brainstorming session.
   - Municipal users
   - Commercial/Industrial users
   - Agriculture
   - Exempt well users

   Purpose: To provide the Work Group the opportunity to brainstorm ideas for development into potential recommendations.
   Action: None required

5. Discussion on additional information needed by Work Group members.
   Purpose: To provide the EAHCP Program Manager with any requests for information or plans for moving forward.
   Action: None required

6. Future Agenda Items:

7. Questions from the Public.

8. Adjourn.

NOTICE OF OPEN MEETING
Available at eahcp.org

As requested by the EAHCP Implementing Committee, the 2014 Regional Water Conservation Program Work Group has been formed and has been constructed of representatives from throughout the Edwards Aquifer Region; a meeting of the **2014 Regional Water Conservation Program RWCP) Work Group** of the Edwards Aquifer Habitat Conservation Plan Program is scheduled for **Monday, November 10th at 9:30 a.m. at the Edwards Aquifer Authority, 900 E. Quincy St, San Antonio, TX.**

Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

1. Call to Order.
2. Public Comment.
3. Receive report from the Program Manager on general topics related to the Regional Water Conservation Program.
4. Staff Report: Recharge sub-committee report.
5. Presentation of the draft report and continued brainstorming session.
6. Discussion on additional information needed by Work Group members.
7. Future Agenda Items:
8. Questions from the public.
9. Adjourn.

NOTICE OF OPEN MEETING
Available at eahcp.org

As requested by the EAHCP Implementing Committee, the 2014 Regional Water Conservation Program Work Group has been formed and has been constructed of representatives from throughout the Edwards Aquifer Region; a meeting of the **2014 Regional Water Conservation Program (RWCP) Work Group** of the Edwards Aquifer Habitat Conservation Plan Program is scheduled for **Wednesday, December 3, 2014 at 9:30 a.m. at the Guadalupe-Blanco River Authority, River Annex Building. 905 Nolan Street, Seguin, TX.** Lunch will be $10 for the public, please RSVP to spayne@edwardsaquifer.org by Monday, December 1st.

Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

1. Call to Order.

2. Public Comment.

3. Receive report from the Program Manager on general topics related to the Regional Water Conservation Program.

4. Presentation and discussion of draft Work Group Report (Attachment1).
   Purpose: To discuss the current list of strategies that have been compiled, contemplate the pros and cons associated with each recommendation and start to prioritize draft recommendations.
   Action: Provide direction to EAHCP staff on next steps for report development.

5. Brainstorming session on additional strategies for Work Group Report.
   Purpose: To provide the Work Group the opportunity to brainstorm ideas for development.
   Action: None required

6. Discussion on additional information needed by Work Group members.
   Purpose: To provide the Work Group with any information requested in past meetings.
   Action: None required

7. Comments from the Public.

8. Adjourn.

NOTICE OF OPEN MEETING

Available at eahcp.org

As requested by the EAHCP Implementing Committee, the 2014 Regional Water Conservation Program Work Group has been formed and has been constructed of representatives from throughout the Edwards Aquifer Region; a meeting of the **2014 Regional Water Conservation Program (RWCP) Work Group** of the Edwards Aquifer Habitat Conservation Plan Program is scheduled for **Thursday, December 11, 2014 at 9:30 a.m. at the Price Center, 222 W. San Antonio St., San Marcos, TX.** Lunch will be $10 for the public, please RSVP to spayne@edwardsaquifer.org by Monday, December 8th.

Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

1. Call to Order.

2. Public Comment.

3. Program Managers update on items pertaining to the Regional Water Conservation Program.

4. Discussion and possible action to approve the RWCP Work Group Recommendations Report to be presented to the Implementing Committee on January 15, 2015 (Attachment 1).
   Purpose: To provide the Work Group the opportunity to comment on suite of recommendation compiled.
   Action: Consider approval of the RWCP Work Group Report for submittal to the Implementing Committee as recommendations to the Edwards Aquifer Authority.

5. Comments from the Public.

6. Adjourn.

Minutes

RWCP WORK GROUP
MEETING MINUTES
October 15, 2014
Available at eahcp.org

1. **Call to Order and Introductions of Work Group members** – 9:07 am
   Members of this Work Group include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Baron-Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

   Colette Baron-Bradsby, Richard Szecsy, and Tyson Broad were unable to make the meeting.

2. **Public Comment.**
   No comment

3. **Nomination and election of the Work Group Chair and Vice-chair.**
   Alicia Reinmund-Martinez, EAHCP Director, began with explaining the role of both the Chair and Vice-chair of the committee. Mrs. Reinmund-Martinez opened the floor to a nomination of a Chair of the Work Group. Dianne Wassenich nominated Colette Baron-Bradsby for Chair, Karen Guz seconded. There was no objection. Charlie Hickman nominated Dianne as Vice-chair, Rick Illgner seconded. There was no objection.

4. **Presentation of Work Group charge.**
   This agenda item was postponed till after the program overview.
   Nathan Pence quickly discussed the concepts found in the Work Group charge. There was no objection to the charge.

5. **Determination of Work Group meeting schedules, dates/locations, and deliverable format.**
   The Work Group discussed possible locations to make attendance more convenient for all members. New Braunfels or San Marcos locations are acceptable for all members. Additionally, moving the time to 10 am to 1 pm was supported by all members.
   Based on the tentative schedule the future meetings will be held on:

   - October 29th
   - November 10th
   - December 3rd

- December 16th

Mrs. Reinmund-Martinez presented the tentative report format to be presented back to the Implementing Committee. Nathan Pence, EAHCP Program Manager, mentioned the basis of this format was borrowed from the ASR/VISPO Work Group report. Discussion on the report format followed.

Rick Illgner motioned to approve the report format, Randy Luensmann seconded. There was no objection.

6. **Presentation on the background and status of the RWCP.**
   Nathan Pence, EAHCP Program Manager, presented the background, purpose, and problems experienced in implementing the Regional Water Conservation Program and how it fits in with the EAHCP. Presentation can be found on the EAHCP website (eahcp.org).
   Details pertaining to the initial commitment contracts and the rational of the volume returned upon fulfillment of conservation goals were discussed. Darcy Frownfelter, General Counsel, confirmed contract expiration date of original commitments to be September 2023. A pro rata compensation will be returned to those with initial commitment regardless of the party that commits additional water to the program. Discussion followed. There were additional questions pertaining to the Department of Defense and other Aquifer users that could be utilized in this program.

7. **Discussion on additional information needed by Work Group members.**

   - To what extent does the Department of Defense meter their use on base?
   - The Work Group requested specific numbers for potential examples referenced to the initial commitment contracts and additional conservation agreements.
   - Karen Guz discussed the possibility of a "just-in-time" conservation option.

8. **Future Agenda Items:**
   - Department of Defense water use and options
   - Exempt well numbers
   - TWDB water loss report/regulations programs
   - Examples to determine potential returns to the initial contracts per contracted conservation commitment.

9. **Questions from the Public.**
   Representatives from Texas Agrilife Extension discuss the Lost Water Seminar to be on October 30th.
   Adam Z. mentioned the Department of Defense's Biological Opinion as a part of their permit with USFWS and confirmed their average use at 44 gallons per person per day. He mentioned the possibility of coordination between EAHCP and USFWS to find possible strategies to conserve additional water with various users.

10. Adjourn- 11:05 am

MEETING MINUTES
October 29, 2014
Available at eahcp.org

1. **Call to Order.**
   Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).
   All committee members are present or represented.
   Mrs. Barron Bradsby explained the official charge of the Work Group and called the meeting to order.
2. **Public Comment.**
   No comment.

3. **Receive report from the Program Manager on general topics related to the Regional Water Conservation Program.**
   - Department of Defense
     Nathan Pence, Program Manager, explained where the EAHCP has explored with the Joint Bases of San Antonio (Department of Defense). Mr. Pence explained the mitigation the HCP has committed for DOD and potential partnership.
   - Initial Commitment Contracts
     Chris Abernathy, EAHCP Senior Coordinator, presented the details of the ICC of the RWCP.
   - Texas Water Development Board's water audit program.
     Shaun Payne, HCP Coordinator, presented details on the TWDB's water audit program.

   Tyson Broad, Sierra Club, asked about the program budget and the average savings versus cost of various conservation methods.

4. **Brainstorming session.**
   Mr. Abernathy presented some data that had been developed to give the Work Group a picture of unpumped water permitted in 2013 per permit type.
   - Municipal users:
   - Commercial/Industrial users:
     Mr. Matthews, representative for Richard Szecsy, discussed industry and possible conservation programs.
     Specific topics included:

- Certainty of supply is most intriguing to industry. Water shortage and CPM matches' peak season business and need.
- Concepts of a water audit in industry (potentially from AgriLife Extension Service).
- Dianne mentioned a local industry and the issues with water (i.e. purple pipe). Issues with reuse in industry are recharge zone rules.
- Karen Guz, SAWS, mentioned the opportunity to incentivize the reduction or elimination of new automatic irrigation systems. Ms. Guz described successful, and unsuccessful, conservation programs inside SAWS service area.
- Potentially focusing HCP dollars towards seasonal peak use conservation as more valuable.

The work Group discussed various companies/industries that would be ideal to target:

- Hotel/Motel industry
- Laundry Mats
- Hospitals
- Car washes
- Amusement Parks/Sports Facilities
- Universities

Discussion about public relations, possibly despite financial compensation.

- PR Campaigns
- State/Federal recognition (awards)

Assisting enforcement and education for regulators to aid compliance.

- Agriculture:

  Ms. Barron Bradsby described an agricultural component to the conservation program of the EAHCP during the EARIP process.

  A discussion about irrigation efficiency was brought-up. Don Meador mentioned the limited number of irrigators using inefficient irrigating in Hays and Comal County. Mr. Pence mentioned some details he had had with a couple irrigators in Medina and Uvalde County and mentioned the opportunity for targeting inefficient irrigation practices. The potential for improving irrigation conservation efforts was discussed. Don Meador, a Hays County irrigator, mentioned his personal business examples for possible conservation opportunities. Discussion followed.

  Some recommendations:

  - Built-in flexibility into existing programs to take advantage of good or bad conditions.
  - Uniformity in conservation rules and regulations.
  - Increase education throughout the region.

  Ray Joy Pfannsteil, Edwards-region farmer, made various points that could be considered in determining conservation efforts with irrigators.

A recommendation to explore various partnerships with current water conservation programs though other entities including Land Trusts.

- Mr. Pence committed the effort between EAHCP Staff and AgriLife Extension Service to track down various programs that could be partnered with.

- Exempt well users:
  A discussion about how many and who are the exempt well users and who is the right person or entities to confront those users.
  Mr. Pence discussed the "double-benefit" agreed upon by USFWS that all Exempt well users that commit water to the RWCP the groundwater trust can claim all the savings (not half like other permitted wells).

5. **Discussion on additional information needed by Work Group members.**
   Top 10 Municipalities with the most unpumped water
   Golf Courses with excess water on their permit
   Should this Work Group not develop recommendations that can help the issues could the Work Group look into budget issues?

6. **Future Agenda Items:**
   Alicia Reinmund-Martinez, HCP Director, discussed the next meeting will have additional information provided as well as the continuation of the brainstorming session.

7. **Questions from the Public.**
   Comment about the trust factors of rural land owners. That AgriLife is a well trusted organization. Using electric metering from public utilities to identify those exempt well users.

8. **Adjourn. 1:23 pm**

MEETING MINUTES
November 10, 2014

1. **Call to Order**.
   Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Barron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

2. **Public Comment.**
   No comment.

   Richard Szecsy introduced himself to the Work Group.

3. **Receive report from the Program Manager on general topics related to the Regional Water Conservation Program.**
   - Budget Summary
     Nathan Pence, EAHCP Program Manager, presented slides in response to an information request about the RWCP Budget. The Work Group discussed the budget to acquire 20,000 AF of water into the Groundwater Trust. This works out to equal about $950/AF of water conserved. Diane Wassenich asked about municipalities and the size of permittees participating. Additionally, she asked about the $1900/AF being a bad idea versus short term lease rates. Discussion followed.
   - Lost Water Seminar
     Richard Szecsy and Chris Abernathy presented information on the Lost Water Seminar. Discussion followed.

4. **Staff Report: Recharge sub-committee report.**
   Alicia Reinmund-Martinez, EAHCP Director, discussed the EARIP Recharge Facility Subcommittee Report. Colette Barron Bradsby, Work Group Chair, asked for comments. There was no comment. Discussion followed. Mrs. Barron Bradsby asked Adam Yablonski, EAA Board Member, if he had comments. He discussed trying to find out about flood irrigators in the EAA jurisdictional area. Discussion followed.

5. **Presentation of the draft report and continued brainstorming session.**
   Mrs. Barron Bradsby expressed concerns about the municipalities not understanding the permit reduction criteria. She asked Calvin Finch, Agrilife Extension, to discuss perceptions of municipalities and the program. Discussion followed.

Mrs. Wassenich pointed out that RWCP is forbearance only, Discussed pooling concept associate with ASR. Discussion followed.

Mrs. Wassenich requested that Department of Defense (DOD) water be a priority. Colette asked Mr. Pence to update the group about DOD. Mr. Pence gave numbers related to DOD. Discussion followed. Colette recommended leak detection and high efficiency toilets.

Ms. Barron Bradsby requested we move from DOD discussion reiterated that we change vocabulary, flexibility in terms.

Break

Ms. Barron Bradsby asked if anybody had any additional ideas. Karen Guz brought up excess holders discussion. Discussion followed.

Ms. Barron Bradsby discussed SWIFT funds from TWDB. The match with HCP funds were discussed.

Varying rates and lease terms were discussed as well.

- Exempt well users
  Tyson Broad wondered about improving irrigation efficiencies to increase recharge. Specifically improvements to the Bexar-Medina irrigation canals to increase water into Media Lake. The Work Group determined recharge enhancement projects do not qualify for the RWCP.

  13,000 AF in exempt wells. (EARIP Model estimate). Discussion about toilets being a good method to reach out to exempt well owners. Discussion followed.

- Commercial and Industrial
  Richard Szecsy opened with language matters to represent investment. "Audit" is not a positive term. Use "excess capacity evaluation." Connotation is highly important to industry. Discussion followed. Questions about industries incentive to participate. Discussion followed. Constant public relations issues in industry. Expedite permitting process. Financial compensation.

6. **Discussion on additional information needed by Work Group members.**

7. **Future Agenda Items:**
   The next Work Group Meeting will be on December 3red at the GBRA Annex Building at 9:30 am.

- Information on exempt wells
- Information regarding permit holders with alternative water supply

8. **Questions from the public.**
   No comment

9. **Adjourn.** 1:59 pm

RWCP WORK GROUP
MEETING MINUTES
December 3, 2014
Available at eahcp.org

1. **Call to Order and Introductions of Work Group members** – 9:40 am
   Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Baron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

   Richard Szecsy was unable to attend.

2. **Public Comment.**
   No comment

3. **Receive report from the Program Manager on general topics related to the Regional Water Conservation Program**
   Nathan Pence, Program Manager, gave the Work Group an update on various RWCP topics.
   Talks with the Department of Defense have continued with AgriLife's help.
   In regards to a comment at last meeting, Mr. Pence has had a conversation with EAA staff about permit applications for industry.
   Mr. Pence brought up some discussion about crafting/passing ordinances in cities for conservation. Discussion followed.
   Chris Abernathy, EAHCP Senior Coordinator, mentioned a workshop Agrilife Extension hosted last week. Discussion about reaching out to various entities to inform them about the RWCP.

4. **Brainstorming session on additional strategies Work Group Report.**
   Mrs. Barron Bradsby opened the floor to any additional ideas the Work Group may have. A discussion followed about the details on potential ways conservation is discouraged.

   Mr. Broad mentioned there needs to be more clarification on where various new topics in the Draft Report. Discussion followed.

   Mr. Luensmann provided an idea about how to provide municipalities an opportunity to participate in the program without committing water for 15 years. This recommendation reflects the new "pooling" program that has been proposed for the ASR. Discussion

followed. Ms. Guz comments that the Work Group must contemplate the effect a "pooling" program may have on incentivizing firm conservation infrastructure. This specific recommendation will be added to the report for discussion.

5. **Presentation and discussion of draft Work Group Report.**
Mrs. Barron Bradsby mentioned the most productive method of moving forward would be to prioritize and combine similar recommendations.

The Work Group decided to organize the Recommendations into tiers:

Tier I-

Recommendation 1: Implement an Outreach Program to Ensure all Permit Holders are Informed about the RWCP

Recommendation 2: Build Flexibility in the Participate Agreements with Municipal and Industrial Users

Recommendation 3: Offer Incentives to Specific Business and Industries for their Excess Capacity

Recommendation 4: Pooling Surplus Water

Recommendation 5: Provide Settlement Opportunity for Permit Holders who Over-Pump their Permit

Recommendation 6: Offer Incentives and Assistance to Encourage Municipalities to Promote Landscape Conservation. Especially during Peak Demand

Tier II-

Recommendation 7: Create a Conservation Incentive Program for Exempt Well Owners

Recommendation 8: Explore Partnerships with Land Trust

Recommendation 9: Target Conservation Measures to Producers that Use Flood Irrigation

Lunch

6. **Discussion on additional information needed by Work Group members.**
Ms. Barron Bradsby began the conversation discussing financial and program flexibility. Additionally, the Work Group discussed the "pooling" concept details further. Discussion followed. Issues pertaining to Initial Commitment Contracts between EAA and SAWS,

Texas State University and the City of San Marcos were discussed in relation to re-structuring the RWCP and specifically adding a pooling program of surplus water at the end of every year.

The Work Group spent time discussing various substantive details in each recommendation. Discussion ended with a plan to provide the Work Group a clean draft for review by the morning of Tuesday, December 9th.

The Work Group asked to be provided a list of over-pumping and enforcement/settlement action cases in 2003-2013.

7. **Comments from the Public.**

8. **Adjourn- 1:57 pm**

RWCP WORK GROUP
MEETING MINUTES
December 11, 2014
Available at eahcp.org

1. **Call to Order-** 9:41
   Members of this workgroup include: Charlie Hickman (Guadalupe-Blanco River Authority), Colette Baron Bradsby (Texas Parks and Wildlife), Diane Wassenich (San Marcos River Foundation), Karen Guz (San Antonio Water System), Randy Luensmann (Universal City), Richard Szecsy (Texas Aggregate and Concrete Association), Rick Illgner (Edwards Aquifer Authority), and Tyson Broad (Sierra Club).

   All members were present for the start of this meeting.

2. **Public Comment.**
   No Comment

3. **Program Managers update on items pertaining to the Regional Water Conservation Program.**
   Over-pumping settlement data
   EAA expressed concern about implementing a pooling program for RWCP at the same time as ASR pooling. That recommendation will most likely not implement in the short term.

4. **Discussion and possible action to approve the RWCP Work Group Recommendations Report to be presented to the Implementing Committee on January 15, 2015.**
   Colette Barron Bradsby, Work Group Chair, quickly identified that there are no objections to the recommendations report and asked if there are any issues. No objections
   There was a discussion about the timeline of completion by Jan 9th for review by the Implementing Committee before Jan 15 meeting. Discussion followed.
   Receive edits from the Work Group Chair and Vice Chair- 15th
   Staff will return the edited version back to the Work Group- 19th
   Final Edits- Jan 2nd
   Submit to the Implementing Committee- Jan 9th

   Discussion about tone of the report and change of specific language.
   Well established goal is needed (Colette via Szecsy) i.e. minimum goal of 10,000 acre-feet. Specific edits were identified and discussion followed.

5. **Comments from the Public.**

6. **Adjourn**