



COLLEGE OF AGRICULTURE
AND LIFE SCIENCES

INSTITUTE OF RENEWABLE NATURAL RESOURCES

November 16, 2010

#### Dear Irrigator:

In 2007, the Texas Legislature created the Edwards Aquifer Recovery Implementation Program ("EARIP"). The Legislature directed the Edwards Aquifer Authority (Authority), Texas Department of Agriculture, Texas Commission on Environmental Quality, Texas Water Development Board and Texas Parks and Wildlife Department to work with other stakeholders to develop a plan for protecting the federally listed threatened and endangered species at the Comal and San Marcos springs.

The EARIP is considering an innovative voluntary program, called the *Voluntary Irrigation Suspension Program Option*, or *VISPO*, to compensate irrigators with permits to withdraw water from the Edwards Aquifer for reducing or suspending irrigation when the aquifer is at specified low levels. The VISPO would be ONE of the means to help meet the state and federal mandate to resolve the longstanding dispute over the use of the Edwards Aquifer by ensuring sufficient flows at the Comal and San Marcos.

The EARIP wants to inform you and other interested persons about the proposed VISPO. We include with this letter an Information Sheet that provides an explanation of the proposed optional program as well as background on the EARIP.

We encourage you to learn more about the VISPO program by attending one of the informational meetings scheduled as follows---

6:00 p.m. Monday, December 6, 2010

Location: Texas AgriLife Research and Extension Center, 1619 Garner Field Road, Uvalde, Texas, 78801

6:00 p.m. Tuesday, December 7, 2010

Location: Braden Keller Community Center, 1410 Amelia St., Castroville, Texas, 78009

Thank you for your consideration of this important program.

Sincerely,

Robert L. Gulley Program Manager

**Edwards Aquifer Recovery Implementation Program** 

RLG/mb

Enclosure





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January 4, 2011

#### Dear Irrigator:

This is a follow-up letter to our November letter and the purpose of this letter is to determine interest in an innovative voluntary program being considered by the Edwards Aquifer Recovery Implementation Program (EARIP), the *Voluntary Irrigation Suspension Program Option*, or *VISPO*, to compensate irrigators with permits to withdraw water from the Edwards Aquifer for reducing or suspending irrigation when the aquifer is at specified low levels. Two meetings were held in early December with excellent comments and questions from the approximately 150 persons in attendance. In response, we have attached a Frequently Asked Questions sheet to represent the questions and the answers.

At this point, the EARIP needs to gage interest by irrigators in the VISPO. Please remember the VISPO is one piece of a multi-layered approach; however, we want to understand participation in the program so we can continue with the development of the larger program to sustain the federally protected species and habitats in the Comal and San Marcos springs ecosystems. Please understand -- your indication of interest is not a contractual commitment, rather an expression of your intent that is quite important in assisting the EARIP in putting together the program.

We have attached a sheet for you to use to indicate your interest that includes a table showing that annual payment schedule for both options as a reminder. If you are interested, please indicate the amount of water you would consider enrolling in the program, the respective permit number and if the water is base or unrestricted. Regardless of your interest, we would appreciate your comments on the program. When finished, tear the bottom portion off and return it to Mr. Rick Illgner at the Edwards Aquifer Authority by January 14, 2011. The address is indicated at the bottom of the sheet.

Thank you for your consideration of this important program.

Sincerely,

Robert L. Gulley Program Manager

**Edwards Aquifer Recovery Implementation Program** 

RLG/mb

Enclosure

### Voluntary Irrigation Suspension Program Option (VISPO) Information Sheet

#### PROGRAM DESCRIPTION

The VISPO is a voluntary program that would provide financial compensation to permitted irrigators that are willing to enter into a 5-year or 10-year commitment to reduce or suspend their authorized withdrawals for the calendar year if the elevation of aquifer levels in the J-17 index well in San Antonio is at or below 650 feet above mean sea level (msl) on September 1 of the previous year.

#### **TARGET VOLUME**

The volume goal for the VISPO program is 40,000 acre-feet and any Edwards Aquifer irrigation permitted water rights within the Edwards Aquifer Authority (EAA) boundaries are eligible for enrollment in the program. Both base and unrestricted irrigation righs will be accepted in the program. Also, a portion of an irrigation right can be enrolled rather than the entire right.

#### **VOLUNTARY PARTICIPATION**

It should be clearly understood that VISPO program participation would be completely voluntary. Currently, all Edwards Aquifer water right holders are required to reduce their permitted withdrawals intermittently by 40% under the most severe drought restrictions. Accordingly, we believe the financial incentive offered to enrollees in the program should encourage participation. We recognize that a significant amount of irrigated acreage is rented or leased land. Therefore, any situation in which the landowner is not the operator, authorization and payment instructions must be received from both parties.

## PROGRAM TRIGGER AND ESTIMATED IMPLEMENTATION FREQUENCY

The program, as currently envisioned, will be triggered if the level in the J-17 index well in San Antonio is at or below 650 feet msl on September 1. The J-17 well and trigger level applies to all participants in the program, including those in Uvalde County. The September 1 date was chosen to provide irrigators with ample time to make cropping decisions. According to historical water level records dating back to 1934, J-17 was at or below 650 feet msl approximately 37% of the time; however, J-17 was at or below 650 feet msl every year during the drought of record (1947-1956). Exact implementation frequency in the future is difficult to accurately predict.

#### PROGRAM TERM AND PAYMENTS TO ENROLLEES

The EARIP proposes to offer two programs, a five-year and a ten-year program to increase flexibility of potential enrollees. However, the ten-year program will have additional financial incentives to encourage enrollment in the longer-term program.

- Five-year program
  - o initial standby fee of \$50/acre-foot that increases 1.5% per year (this amount is paid to the enrollee every year of the term, regardless of aquifer conditions)
  - o initial implementation fee of \$150/acre-foot that also increases 1.5% per year.
- I en-year program
  - o initial standby fee of \$57.50/acre-foot for years 1-5 and \$70.20/acre-foot for years 6-10 (this amount is paid to the enrollee every year of the term, regardless of aquifer conditions)
  - o initial implementation fee of \$172.50/acre-foot for years 1-5 and \$210.60 for years 6-10.

## **Frequently Asked Questions:**

Edwards Aquifer Recovery Implementation Program's (EARIP) <u>V</u>oluntary <u>I</u>rrigation <u>S</u>uspension <u>P</u>rogram <u>O</u>ption (VISPO)

The purpose of this sheet is to provide responses to <u>all</u> Edwards Aquifer Authority (EAA) irrigation permit-holders for questions that were asked at one of the informational meetings held December 6<sup>th</sup> & 7<sup>th</sup>, 2010 regarding the VISPO.

1. "Can I enroll Base Irrigation Groundwater (base) into the VISPO?"

Yes, this program is designed to provide compensation to those interested in participating in this voluntary program. No one else can use the water enrolled in the program – it will remain in the aquifer to benefit aquifer levels, springflows, the protected species and their habitats.

"What about other sources of water for irrigation?"

The VISPO is intended to enroll <u>Edwards Aquifer</u> pumping permits. Water rights from another source, such as other aquifers or surface water [e.g. canals], are not eligible to be enrolled. An EAA permit-holder can enroll their EAA permit and continue to irrigate from these other sources, recognizing that all of the legal conditions affecting those other water sources remain in force.

"How will this program be paid for? What is the funding source?"

The VISPO is <u>one part</u> of a <u>multi-layered</u> approach to aquifer management to ensure the beneficial economic use of the Edwards Aquifer can continue while at the same time accomplishing endangered species protection during periodic droughts. The EARIP is now considering various options for funding the implementation of the approach. Even though specific funding mechanisms have not been identified at this time, some combination of financial resources is expected to be available to meet the funding needs of <u>each part</u> of this <u>multi-layered</u> approach including the VISPO prior to September 1, 2012.

4. "When would the first trigger date be? What year?"

Some or all of the components to the multi-layered approach may not be implemented until the United States Fish & Wildlife Service formally approves the Habitat Conservation Plan. The goal is to have this approval by September 1, 2012. If the EARIP is successful in achieving this goal, the first time VISPO would be triggered is in September 1, 2012. If not, the first time the VISPO could be triggered would be September 1, 2013.

5 "What happens if the trigger is implemented on September 1st, but then aquifer levels improve?"

If the trigger is reached (650 feet or lower as measured at the Index Well J-17 in San Antonio, Stage 2) on or before September 1<sup>st</sup>, those who choose to enroll in the program will be required to suspend their irrigation the following calendar year regardless of improved conditions. Irrigation of fall crops can continue until January 1, subject to Critical Period reductions, if the suspension trigger is reached on September 1. If the aquifer level improves after September 1<sup>st</sup>, but the VISPO has been triggered, participants will still be paid to suspend irrigation the following year.

6. "Can a portion of a permit be enrolled?"

<u>Yes.</u> If a permit-holder wishes, a portion of the pumping rights <u>can</u> be enrolled in the VISPO. This preserves the enrollee's flexibility to irrigate a portion of the farm. Enrollees who desire to enroll less than their entire permit

will be required to have a real-time meter installed by the EAA on their well(s) at no cost to the well-owner. This is intended to ensure the pledged portion of the permit is suspended.

7. "What does this mean to businesses that supply and equip irrigators?"

Seed, fertilizer, equipment, fuel, and crop storage companies have expressed concern that they will be adversely affected by the VISPO. Several components of this program have been designed to <u>lessen</u> any impacts to these businesses. First, enrollees and agribusinesses will have what is thought to be enough time to adjust their operations in preparation for an upcoming suspension-season. Second, irrigated agriculture can continue on the acres of land not affected by the program. Third, enrollees can choose to pledge only a portion of their pumping permits and still irrigate on a portion of their acreage. Fourth, dry-land farming remains an option for enrollees; it is believed that a September 1<sup>st</sup> trigger date will provide adequate notice for agribusinesses to accommodate these practices. A similar program was enacted by the EAA in 1997, as documented by agricultural economists at Texas A&M University (<a href="http://repository.tamu.edu/bitstream/handle/1969.1/6153/tr175.pdf?sequence=1">http://repository.tamu.edu/bitstream/handle/1969.1/6153/tr175.pdf?sequence=1</a>). Also see Frequently Asked Question #9 below).

8. 'What will this do to aquifer levels?"

Aquifer levels depend on many factors; however, current analysis indicates that the VISPO provides a significant improvement in springflows at Comal Springs and some benefit at San Marcos Springs during a repeat of the drought of record compared to a baseline condition of withdrawing water from the aquifer at permitted amounts with drought restrictions.

9 "How has agriculture been represented in this process, and how can I get involved?"

The EARIP is overseen by a Steering Committee and almost 100 other participant stakeholders give their input to the Steering Committee through various working groups and subcommittees.

Agriculture has multiple seats ("votes") on the Steering Committee. An Edwards Aquifer irrigator and EAA permit-holder is one of the voting members. The alternate for that voting member has been actively involved in numerous other EARIP working groups and is also an EAA permit holder. The Texas Department of Agriculture has been involved in this process from its inception. The Department of Agriculture must be satisfied with the entirety of the plan, since it is required to be a signatory of the final document by State law. The EAA itself is a voting member of the Steering Committee and is overseen by a Board of elected Directors, four of whom represent irrigated-agriculture communities of Medina or Uvalde counties. The Guadalupe County Farm Bureau is represented on the Steering Committee, representing irrigators who receive their water partly from springflow in the surface rivers downstream. The South Texas Farm and Ranch Club and the Texas Wildlife Association are also involved stakeholders in the process. The Texas farm Bureau is an important, active stakeholder in the EARIP. The EARIP is administered by Texas AgriLife Extension at Texas A&M University.

All EARIP meetings adhere to the spirit of required public notice and are held in public buildings in the aquifer region. Anyone interested in the EARIP process can be involved in a number of ways:.

- The EARIP's website: <a href="http://earip.org/">http://earip.org/</a>
- Join the EARIP mailing list to receive updates, reports, and notices of upcoming work group, subcommittee, and Steering Committee meetings (<u>EARIP@listserv.tamu.edu</u>)
  - The next meeting of the Steering Committee will be held on January 13-14, 2011 from 10AM-4PM at the San Marcos Activity Center in San Marcos.

# **Program Payment Schedule and Indication of Interest**

Option	Fee	1	2	3	4	5	6	7	8	9	10
5-Year	Stand-by	50.00	50.50	51.01	51.52	52.03	N/A	N/A	N/A	N/A	N/A
	Implementation	150.00	151.50	153.02	154.55	156.09	N/A	N/A	N/A	N/A	N/A
10-year	Stand-by	57.50	57.50	57.50	57.50	57.50	70.20	70.20	70.20	70.20	70.20
	Implementation	172.50	172.50	172.50	172.50	172.50	210.60	210.60	210.60	210.60	210.60

## Please tear off this portion and return it as indicated below the table

I would be interested in participating in the VISPO in the following manner:

	5-year		10-year			
Permit #	Base (acre-feet)	Unrestricted (acre-feet)	Permit #	Base (acre-feet)	Unrestricted (acre-feet)	
-		<u> </u>				
Total			Total			

Comments	 <u></u>	 _	

Please return to Mr. Rick Illgner by January 14, 2011 Edwards Aquifer Authority 1615 N. St. Mary's San Antonio, TX 78215

# Voluntary Irrigation Suspension Program Option (VISPO) for the Edwards Aquifer Recovery Implementation Program (EARIP)

#### **BACKGROUND**

As the EARIP explores options to provide the necessary protection for the endangered species and respective habitats in the Comal and San Marcos ecosystems, it is apparent there is a relationship between the habitat of the endangered species and the management of the aquifer, especially during the most severe droughts. Consequently, the EARIP is considering a Voluntary Irrigation Suspension Program Option (VISPO) program to reduce aquifer pumping demands during specified critical periods in order to improve aquifer levels and protect spring flows, the protected species, and their habitats.

## PROGRAM DESCRIPTION

The VISPO is a voluntary program open to participation to eligible holders of irrigation water rights from the Edwards Aquifer Authority (EAA) in Atascosa, Bexar, Comal, Hays, Medina and Uvalde counties who are willing to suspend exercising all or a portion of their authorized withdrawal rights in exchange for financial compensation. The program sponsor (Sponsor) will determine, by September 1, if the Aquifer level declines to a level at or below 645 feet above mean sea level (msl) in the J-17 index well in San Antonio (the trigger), indicating that the program participants (Participants) must suspend withdrawals in the next following calendar year. Each Participant will be paid a standby fee each year of the program term regardless of aquifer level or condition and will be paid an implementation fee equal to an additional three times the standby fee each year the program requires suspension of withdrawals.

#### **PROGRAM ELEMENTS**

## **Target Volume**

The volume goal for the VISPO program is 40,000 acre-feet. The procedure for achieving the target volume is to initially pursue enrollment from Atascosa, Bexar, Comal and Hays counties first. Then the balance of the target volume goal will be divided between Medina and Uvalde counties, with a 15,000 acre-foot cap for each county. In review of enrollment applications for Medina and Uvalde counties, those choosing the 10-year option from both of these counties will be given first priority. S The intent of the VISPO program is to leave water in the aquifer for the benefit of springflow, withdrawals of enrolled water by another party will not be allowed. The financial offering for the program are clearly aimed at base irrigation groundwater rights; however, all permitted irrigation water rights (base and unrestricted) will be accepted in the program. Any permitted irrigation water rights are eligible for enrollment in the program (including municipal and industrial) since all modeling scenarios assume total permitted Edwards Aquifer withdrawal rights are pumped when aquifer or spring conditions allow. Further, permit holders whose withdrawals are monitored by real time automated meters will be allowed to enroll a portion of their water rights in the program.

## **Voluntary Participation**

It should be clearly understood that VISPO program participation is completely voluntary and that electing not to participate or declining to enroll will not result in any consequences to an irrigation water right holder other than the required withdrawal reductions specified by the EAA Act. Nevertheless, the requirement that all Edwards Aquifer water right holders must reduce their permitted withdrawals intermittently by up to 40% currently under the most severe drought restrictions (44% under the proposed Stage V) and the financial incentives offered to enrollees in the program should encourage participation. In recognition of the fact that a significant amount of irrigated acreage is rented or leased land, the program will require that in any situation in which the landowner is not the operator, authorization and payment instructions must be received from both parties. Finally, in order that the VISPO program is credited as a component of the EARIP program document, there must be a determination by the U. S. Fish & Wildlife Service (Service) that the VISPO program is likely to occur.

## Program Trigger and Estimated Implementation Frequency

The program will be triggered if the level in the J-17 index well in San Antonio is at or below 645 feet msl on the trigger date, September 1. In response to feedback received from the agricultural community, and maintain an level of protection for the VISPO program, the trigger was adjusted to 645 feet msl. That level will reduce its frequency of implementation (33% for the years 1947 - 2000 compared to a 38% implementation rate for 650 feet msl). However, during extreme droughts, the program trigger will still protect springflow and endangered species. The September 1 date was chosen to provide irrigators, and ancillary businesses affected by the decisions made by irrigators, with ample time to make cropping decisions. Announcing implementation of the program on that date will result in a complete suspension of withdrawals of the enrolled water for each program participant for the next following calendar year, beginning on January 1.

The calibration period for the EAA groundwater model is the period from 1947 – 2000. According to historical water level records for that period, J-17 was at or below 645 feet msl approximately 33% of the years in that calibration period; however, J-17 was at or below 645 feet msl every year during the drought of record, according to model outputs. Exact implementation frequency in the future is difficult to accurately predict and is dependent on multitudes of factors.

## **Estimated Program Benefits**

Preliminary analysis by HDR Engineering, Inc. indicates that a VISPO with 40,000 acre-feet participation will significantly improve springflow at Comal Springs during severe drought. According to the modeled results, Comal Springs would have flow at or below 30 cubic feet per second 33% fewer months during the drought of record compared to a baseline condition with 572,000 acre-feet authorized withdrawals reduced up to 40% during the most restrictive stage of drought reductions\*. Likewise, Comal Springs would have no flow 32% fewer months during the drought of record compared to a baseline condition with 572,000 acre-feet authorized withdrawals reduced up to 40% during the most restrictive stage of drought reductions.

\* This was made at an October 21, 2010, EARIP meeting. Here is the link to the HDR presentation: http://earip.org/EARIPMeetings/Oct2110/10-21-0%20EARIP\_Tech%20Analyses\_10-21-2010\_v2.pdf

## **Program Term**

The program should extend for a term of ten-years in order to provide maximum benefits in a repeat of the entire drought of record and to serve as a substantial component of in the Habitat Conservation Plan. Information available from agricultural interests suggests that most irrigators are more comfortable with a short-term arrangement. Therefore, the EARIP proposes to offer both a five-year program and a ten-year program. The ten-year program will have additional financial incentives to encourage enrollment in the longer-term program. It is the hope and intent of the EARIP that the program can be extended for longer than ten years, if that is necessary to cover the term of an Incidental Take Permit.

## **Estimated 10-year Program Costs**

The VISPO Workgroup recommends that the EARIP consider a starting point with two programmatic offerings; a five-year a ten-year program. Both programs will have an annual standby fee and an implementation fee equal to three times the annual standby fee as follows:

- Five-year program
  - o standby fee of \$50/acre-foot that increases 1.5% per year
  - o implementation fee of \$150/acre-foot that also increases 1.5% per year.
- Ten-year program
  - o standby fee of \$57.50/acre-foot for years 1-5 and a step-up to \$70.20/acre-foot for years 6-10
  - o implementation fee of \$172.50/acre-foot for years 1-5 and a step-up to \$210.60/acre-foot for years 6-10.

Determining the cost of the program ahead of time is complicated because expenses are determined by the amount of water enrolled in the five and ten-year program options and the number of times the program is implemented. Assuming that all 40,000 acre-feet are enrolled in the ten-year program and an average implementation rate of 33%, a hypothetical average annual cost for a ten-year option is approximately \$4,137,200. On the other hand, a conservative estimate of the program cost with all 40,000 acre-feet enrolled in the ten-year option and the program is implemented every year as it would during a repeat of the drought of record, the average annual cost is approximately \$10,216,000

#### **MEMORANDUM**

FROM: RICK ILLGNER, Chair of the VISPO Work Group

TO: EARIP

DATE: May 12, 2011

SUBJECT: RECOMMENDATIONS FOR VISPO

The VISPO work group met on May 12 to discuss operational adjustments that would reduce the overall program costs without sacrificing the estimated benefits. Larry Land of HDR Engineering, Inc. participated by phone to provide technical analysis. The group considered the trigger date, the trigger level (at J-17), the target volume of the program and the possibility of using a staggered implementation (dividing the total amount enrolled into two groups and only calling for one of the groups each year or some variation on this theme).

After considerable discussion, and with the assistance of information provided by Larry Land, the work group would like to suggest the following recommendation for the VISPO program:

- The target volume remain at 40,000 acre-feet with our commitment to fill the volume the same as mentioned previously aggressively pursue enrollment from Atascosa, Bexar, Comal and Hays counties first and divided the balance of the target volume goal between Medina and Uvalde counties, with a 15,000 acre-foot cap for each county. In review of enrollment applications for Medina and Uvalde counties, those choosing the 10-year option will be given first priority.
- Change the trigger date to October 1\*.
- Change the trigger elevation at J-17 to 635 feet\*.

It is the general understanding of the VISPO work group that these changes, if acceptable to the Steering Committee and EARIP participants, will still provide the springflow benefits at a substantially reduced overall program cost. Using the lower trigger level would reduce implementation rate for the model period (1947-2000) using the SB 3 baseline analysis from 69% at 645 feet to 33% at 635 feet. During the drought of record sequence, the implementation rate would only be reduced from 100% to 90%. The estimated program costs could be approximately 30-40% of the original estimate (\$10,216,000 annually). More importantly, the estimated springflow benefit is the same during the worst part of the drought of record sequence. Therefore, the group felt comfortable with the recommendations.

A presentation will be made at the May 17 EARIP meeting.

<sup>\*</sup> different from existing VISPO package paramaters

## VISPO Status Report Number 1

#### Dear Irrigator:

This Status Report follows our January 5, 2011 letter and the informational meetings held in December 2010.

The VISPO is a program being developed by the EARIP to compensate irrigators with permits to withdraw water from the Edwards Aquifer for reducing or suspending irrigation when the aquifer is at specified low levels.

First and foremost, the EARIP appreciates the interest shown by all persons who attended the VISPO informational meetings as well as those who followed-up with calls seeking clarification. We especially appreciate those who submitted responses indicating interest in participating in the VISPO.

The EARIP received responses from approximately 12% of the irrigators who were sent informational letters. Most of the responses indicated the amount and type of water and which program the responder was interested in enrolling. Some of the letters we received offered questions, comments and support for the program, although a few letters expressed opposition to the program. In total, slightly more than 17,000 acre-feet of water was submitted as an indication of interest.

The EARIP has determined that as a result of the amount of positive interest shown by irrigators for the VISPO, it is in the interest of all aquifer stakeholders to move forward. We are pursuing the development of funding mechanisms to implement the VISPO and other components of an appropriate environmental program to address statutory requirements to provide long-term protection for aquifer-dependent threatened and endangered species. In response to the comments received, we have made a few changes to the program and posted information on the EARIP web site. The most notable changes are the trigger level has been reduced from 650 feet to 645 feet at the J-17 index well. The lower level will reduce implementation frequency from 38% to 33%, based on historic records for the period 1947 - 2000. Also, we are going to put more emphasis in securing water in counties other than Uvalde and Medina to reach our goal. You can now follow the progress of the VISPO program at this link - <a href="http://earip.org/Article.aspx?ID=19">http://earip.org/Article.aspx?ID=19</a>.

If you have any questions, please call Rick Illgner at the Edwards Aquifer Authority, (210) 222-2204.

Thank you for your consideration of the VISPO.

Sincerely,

Robert L. Gulley Program Manager Edwards Aquifer Recovery Implementation Program

RLG/mb