



May 17, 2018

Tanya Sommer
United States Fish and Wildlife Services
Austin Ecological Services Field Office
107011 Burnet Road, Suite 200
Austin, Texas 78758

RE: Clarification to the Voluntary Irrigation Suspension Program Option (VISPO) Program Compensation Schedule of the Edwards Aquifer Habitat Conservation Plan (EAHCP § 5.2.1.3).

This memorandum is submitted on behalf of the Edwards Aquifer Authority (EAA), the City of New Braunfels, the City of San Marcos, the San Antonio Water System and Texas State University (collectively the Permittees of Incidental Take Permit (ITP) #TE-63663A-1), in request of a clarification regarding the compensation schedule associated with the Voluntary Irrigation Suspension Program Option (VISPO) program, as defined in Chapter 5 of the Edwards Aquifer Habitat Conservation Plan (EAHCP § 5.2.1.3). More specifically, the Permittees seek affirmation of the ability to deviate from the original VISPO compensation schedule such as to make pricing adjustments to maintain the program's competitive nature within the regional water market and thus ensure continued full enrollment in the VISPO program for the duration of the ITP.

The VISPO program is a conservation measure within the EAHCP established to minimize and mitigate the impacts of pumping from the Edwards Aquifer during periods of low spring flow and regional drought by suspending the withdrawal of groundwater for irrigation purposes. The volume target for the VISPO program is to enroll 40,000 ac-ft/yr of permitted groundwater for suspension when the J-17 index well water level is at or below 635 ft-MSL on the annual trigger date of October 1st. Irrigation permit-holders that participate in the VISPO program are financially compensated during their time of suspended groundwater pumping and are presented the option of five- or ten-year forbearance agreement commitments.

The current five-year program, as defined in the EAHCP, outlines a standby fee of \$50/acre-foot of groundwater with a 1.5 percent annual increase to be paid to the enrollee every year of the term of their agreement, regardless of Aquifer conditions; and a fee of \$150/acre-foot of groundwater with a 1.5 percent annual increase to be paid to the enrollee each year when temporary pumping suspensions are required. Additionally, the current ten-year program outlines a standby fee of \$57.50/acre-foot for years 1-5 and \$70.20/acre-foot for years 6-10 to be paid to the enrollee every year of the term of their agreement, regardless of Aquifer conditions; and a fee of \$172.50/acre-foot of groundwater for years 1-5 and \$210.60 for years 6-10 to be paid each year when temporary pumping suspensions are required.

The details of the five- and 10- year programs were developed by the EARIP VISPO Work Group to ensure prompt enrollment in 2013. Payment structures stated in the EAHCP were not intended to lock in price points of VISPO groundwater for the term of the ITP but rather, encourage initial participation into the program. Now, as the first set of five-year VISPO forbearance agreements approach expiration, clarification is requested to confirm that the original compensation terms were intended only for rollout

and that the EAA may adjust pricing in future years to respond to market conditions as may be warranted to ensure sustained full enrollment in the VISPO program for the duration of the ITP period.

This clarification is only intended to affirm EAA's ability to deviate from the VISPO Program compensation schedule, as originally defined in the EAHCP. In all other respects, the VISPO program, including the target volume, program triggers, spring flow protection plans and the program funding defined in Table 7.1 of the EAHCP, remain unchanged.

Furthermore, in an effort to ensure transparency of process, the EAHCP program staff presented to the Stakeholder Committee the rationale for this VISPO Program Term clarification and provided the opportunity for input on the proposed changes to the pricing structure. Additionally, the Edwards Aquifer Authority has collaborated with current 5-year VISPO customers for feedback on the current Program Terms and the proposed modification.

On March 22, 2018, the EAA General Manager stated the need and rationale for a clarification of the VISPO Program Terms to the EAHCP Implementing Committee. On May 17, 2018, the Implementing Committee met again to discuss final proposals to the Program Term and approve this Clarification letter. All agendas and minutes from this process are included as Exhibits 1, 2, and 3.

The Permittees seek your formal concurrence with and acceptance of this clarification to allow for modification to the VISPO Program Terms as they relate to price structure such that it remains adaptable and responsive to varying market conditions. Approval of this clarification will encourage continued enrollment in the VISPO program and, most importantly, continued compliance with the spring flow conservation goals of the EAHCP.

We look forward to your formal acceptance of this clarification and appreciate your response on this issue.

Respectfully,

A handwritten signature in black ink, appearing to read "Nathan E Pence". The signature is fluid and cursive, with a long horizontal stroke at the end.

Nathan E Pence
EAHCP Program Manager



**Implementing Committee
Meeting Minutes
March 22, 2018**

Members of the committee included: Tom Taggart (San Marcos), Roland Ruiz (EAA), Mark Enders for Greg Malatek (New Braunfels), Darren Thompson (SAWS), Andrew Sansom (Texas State University), and Jonathan Stinson (GBRA).

1. Call to order -- 9:05am

Darren Thompson called order for the Committee. Mark Enders substituted for Greg Malatek. A quorum was present.

2. Public Comment:

No comments.

3. Approval of minutes from the February 8th Implementing Committee meeting.

Roland Ruiz addressed the revisions made to the February 8th IC meeting minutes. Mr. Ruiz made a motion to approve the meeting minutes as revised. Andrew Sansom seconded the motion. There were no objections.

4. Receive report from the Program Manager on general topics related to the Habitat Conservation Plan.

- **Springflow**

Dr. Chad Furl presented the springflow data on the Comal and San Marcos spring systems and an update on the Index Well levels.

Darren Thompson added that, in the absence of precipitation, J17 projections indicate Stage 1 conditions during the first week of April and possible Stage 3 conditions during mid-summer. Significant rain fall within the coming weeks could reset those projections.

Nathan Pence noted the significance of the drought forecast in relation to the HCP and the spring flow triggers associated with the Refugia Program.

Dr. Furl concluded the hydrological presentation with data on springflow averages and observed rainfall.

- **Tour of Comal Springs – May 9th**

Dr. Furl invited committee members to attend a tour of the Comal Springs on May 9th. The tour will feature habitat restoration sites along the Old Channel and along the Comal Spring system. Dr. Furl asked that all those interested in attending to please RSVP by emailing EAHCP staff.

Mr. Pence added that a "save the date" email will be sent to all committee members with event details.

- **Comal Springs Riffle Beetle Work Group**

Dr. Furl provided a summary of the Comal Springs Riffle Beetle Work Group. The new work group will have three main areas of focus: 1) cotton lure sampling methodology 2) improving field activities to accomplish HCP biological and identifying non EAHCP activities, and 3) establishing long term biological goals of population and habitat of the riffle beetle. Currently, EAHCP staff are in the final stages of developing a draft charge and establishing final work group membership.

Andrew Sansom asked Dr. Furl to elaborate on non EAHCP activities. Dr. Furl answered that non EAHCP activities generally include research done by other agencies outside of the HCP in biological monitoring areas.

Mr. Sansom asked if there has been any measurable negative impact from the large amount of studies done in key habitat areas and, if so, are there any enforcement mechanisms to manage those activities. Mr. Pence answered that anyone collecting or doing research on endangered species is required to have a permit from the U.S Fish and Wildlife Service.

Darren Thompson asked who the candidates were for the Comal Springs Riffle Beetle Work Group. Dr. Furl answered that Work Group membership has yet to be determined. The goal is to have 5-8 experts, with varying experience, to participate. Dr. Furl added that the Work Group will not consist entirely of Science Committee members. Mr. Pence added the importance of finding an appropriate balance of scientific expertise.

- **Update on Construction of Refugia Buildings**

Dr. Furl presented updates on the construction of the Refugia Building in San Marcos. So far, construction is going well with no major issues. Construction is projected to be completed by Summer/Fall 2018. Additionally, a bid packet has been released for the renovations at the Uvalde National Fish Hatchery.

- **ASR Operations by SAWS**

Darren Thompson provided an update on ASR operations. 16,667 ac-ft of water was noticed to SAWS by the EAA. 6,900 ac-ft of water for that notice has been stored at a rate of 16 MGD. As of today, a total of 89,000 ac-ft of water has been stored on behalf of the EAHCP. In total, 161,000 ac-ft is in storage. The overall planned capacity is 200,000 ac-ft.

Mr. Pence asked is SAWS anticipated reaching the 200,00 ac-ft storage capacity at the end of the year. Mr. Thompson answered that, considering the possibility of drought and a 20% cut back, reaching the capacity is unlikely to occur this year.

Carol Patterson asked if there has there been any change in storage predictions based on the migration of water. Mr. Thompson answered that although there has been drift in the formation, the change has not been significant.

- **2019 Work Plans:**

Shaun Payne presented the EAHCP timeline for 2019 Work Plans and Funding Application submittals. So far, EAHCP staff has meet with all internal entities as well as the City of San Marcos and the City of New Braunfels to prepare for the upcoming Work Plan submittal. Work

Plans are to be submitted to the Program Manager by April 16. There may be changes to the methodology within the 2019 Work Plans, however, significant changes to the overall budget is not to be expected.

Mr. Pence added that specific changes to the submerged aquatic vegetation methodologies are to be expected in the spring community Work Plans and asked the committees to focus on areas that experience changes year to year.

Tom Taggart asked if the Budget Work Group will have the opportunity to review funding applications. Mr. Pence answered that there are plans for the Budget Work Group to reconvene in September.

Andrew Sansom suggested to revise the schedule presented at the meeting to include the Budget Work Group and resend to the committee.

Mr. Payne notified the committee of the recent update to the EAHCP digital newsletter. The April 2nd newsletter will contain a new format with updates and changes made for easier navigation and access to newsletter archives.

- **Budget Report (Attachment 3)**

Nathan Pence presented the EAHCP budget report to the committee. In summary, all projects remain within budget.

- **Update on the Strategic Adaptive Management Process Planning**

Mr. Pence presented the Strategic Adaptive Management Process Planning to the committee. Phase 1 is the first 7 years of the HCP, Phase 2 is the remaining 8 years of the program. A chance to review the HCP during that transition is afforded during the Strategic Adaptive Management Process Planning. Part of this review includes an evaluation of Phase 1 by the National Academy Sciences in their third and final report. Mr. Pence noted that the HCP is currently in that transition phase. To inform the committee on the Strategic Adaptive Management Process Planning, Mr. Pence is working on a white paper that will include details of the FMA and HCP, timelines and the procedure moving toward Phase 2.

Tom Taggart asked if there are any issues embedded in the Strategic Adaptive Management Process Planning report that would require additional funding. Mr. Pence answered that a consultant may be hired to document and write the report on the Strategic Adaptive Management Process for USFWS as well as a report for the administrative record. Modeling will be done by EAA staff and will not require additional funding. Overall, there are no anticipated changes to Table 7.1.

Mr. Taggart suggested making a brochure on the Strategic Adaptive Management Process Planning to provide to the public and governing entities.

- Mr. Pence presented the committee a brief EAHCP staffing update. The duties of the EAHCP coordinators have changed slightly to expand opportunities and utilize skill sets within the team. A job posting for an environmental scientist will be available soon. A new staff member will be joining the team next month to fill the contracting position.

- Lastly, the EAA is participating in the Big Give. A food truck is set up outside for all those interested in the fundraising event. A portion of proceeds will go to the Edwards Aquifer Conservancy.

5. Receive update from the EAA on the status of VISPO and the potential need for a Memorandum of Clarification to USFWS regarding price structure.

Roland Ruiz introduced the status of the VISPO program to the committee. The program offers long term commitments of forbearance either on a 5 or 10-year lease agreement. 5-year commitments are now approaching renewal period. The challenge for the EAA is that, in the HCP, the rate structure for the VISPO program includes very specific language that does not provide any flexibility for reenrollment.

Nathan Pence added that the memo of clarification will address our interpretation of the information on the VISPO program in the HCP so that the USFWS can respond to our interpretation. We will not be asking for approval but rather agreement on the interpretation of the language in the HCP.

Darren Thompson added that the memo of clarification will be used so that an official amendment will not be required. Mr. Pence agreed with Mr. Thompson. Mr. Ruiz added the memo will be presented at that the next Implementing Committee meeting.

Javier Hernandez presented to the committee an overview of the VISPO program. Currently, 62% of VISPO commitments are 5-year enrollments and 38% are 10-year enrollments. A majority of VISPO customers are approaching the end of the 5-year contracts. A letter of notice of reenrollment is going to be sent to permit holders soon.

Tom Taggart asked if there will be a significant difference between the potential benefits of a 5-year lease verses a 10-year lease. Mr. Hernandez explained the 10-year payment schedule marking the differences between the lease agreements. Adding to Mr. Hernandez's response, Mr. Taggart noted that, based on payment schedules, there will be enough differences between the 5 and 10-year agreements that the 5-year contracts will not be favored over the 10-year. Darren Thompson added that the 10-year leases will eventually be phased out. Andrew Sansom asked why the 10-year leases will be discontinued. Mr. Ruiz answered that the 10-year leases will not be offered a renewal opportunity because those contracts are not approaching expiration. Mr. Thompson clarified that as 10-year agreements begin to expire, 5-year agreements will be added to replace the loss. Mr. Thompson asked how many permittees the VISPO program currently has. Mr. Hernandez answered that there are at least 165 permittees currently enrolled in the program. Mr. Sansom asked to clarify the reasoning behind why expiring 5-year agreements will not be offered enrollment into a 10-year contract. Mark Frieberg answered that one of the reasons is to limit competition of 10-year contracts between the new ASR forbearance agreement and VISPO. Mr. Thompson ask if there has been any issue in 5-year reenrollments without the opportunity to apply for a 10-year agreement. Mr. Hernandez answered that so far there have been no issues. Mr. Thompson added that the automatic payment escalators are difficult to manage as market conditions change. Mr. Pence added that, through internal conversations, it was determined that if the payment schedules continued as stated in the HCP, more customers would gradually favor payment options without an escalating payment schedule.

Mr. Thompson questioned whether the ASR and VISPO programs will experience competition since both are forbearance type agreements. Mr. Frieberg answered that it is unlikely the two programs will experience competition due to the differences of the program terms. Mr. Thompson added that customers will have the option between choosing a program that has certainty versus one that has a

higher risk but greater reward. Mr. Pence added that most customers that are considering reenrollment are already comfortable with the VISPO program.

Carol Patterson asked if the farming industry has any significant effect on the VISPO program. Mr. Ruiz answered that, if anything, the program has added a level of financial certainty to the agricultural economy during drought conditions.

Mr. Pence informed the committee that the VISPO memo of clarification will be presented as an action item at the next Implementing Committee meeting in May.

Mr. Ruiz informed the committee that the process of reenrolling current 5-year VISPO customers has begun and enrollment forms will be distributed soon. He added that the goal is to provide certainty in through the Strategic AMP, so the focus will be on the rollover of the ITP.

6. Presentation and possible action to authorize Program Manager to submit the 2017 EAHCP Annual Report to be submitted to USFWS.

Shaun Payne presented the 2017 EAHCP Annual Report to the committee. Mr. Payne highlighted the timeline leading up to the final report and thanked everyone who helped write, contribute and review the document.

Melani Howard thanked Mr. Payne for his hard work in producing the EAHCP Annual Report.

Mr. Payne presented the new Annual Report Highlight brochure. The brochure is now available for pickup and distribution. Mr. Pence added that if any committee member wants more brochures for offices, public, organizations, etc., to email EAHCP staff with a requested amount.

Alicia Reinmund-Martinez presented to the committee recent comments made on the draft Annual Report that were not included in the most recent comment matrix.

Tom Taggart made a motion to approve the submission of the 2017 EAHCP Annual Report to the USFWS. Darren Thompson seconded. The motion was approved.

Mr. Payne announced that flash drives containing the 2017 EAHCP Annual Report and appendices will be made available at the next Implementing Committee meeting.

Tom Taggart thanked the consultants and everyone involved in producing the Annual Report.

7. Presentation and discussion of the 2017 Biological Monitoring and Water Quality Monitoring reports, schedule for contract renewals and long-term plans (Attachments 4a, 4b and 5).

Dr. Chad Furl presented the 2017 Biological Monitoring and Water Quality Monitoring reports to the committee. Overall, monitoring species and habitat remained in good condition during low flow conditions. In the Comal Springs, temperature and dissolved oxygen parameters remained within range throughout 2017. Non-native aquatic vegetation removal throughout the system continues to benefit those water quality parameters. Fountain darter populations continue to follow healthy trends in size and abundance. Comal salamanders were the highest observed to date. Fall of 2017 contained the highest sample of salamanders throughout the year. Comal Springs Riffle Beetle counts continue to be low throughout the system. In the San Marcos Spring system, Texas Wild-Rice coverage has been recorded at highest levels to date. Mr. Pence noted the concern on how well Texas Wild-Rice is growing in the San Marcos River and the competition it is pressing upon other native aquatic vegetation.

Carol Patterson asked if Texas Wild-Rice harvesting would be considered take of the species. Mr. Pence answered that “take” does not include plant species.

Dr. Furl presented to the committee a few findings from the fish tissue analysis that was conducted as part of the Biological Monitoring Program in the Comal and San Marcos spring systems. Fish tissue, plasma and water quality testing were also included in the analysis for the presence of pharmaceutical chemicals.

Mr. Pence added that the fish tissue analysis was included in the Biological Monitoring Program after the presence of certain contaminants were found in sediment testing.

Darren Thompson noted that the fish tissue analysis was only to be conducted on odd years. Dr. Furl confirmed the testing schedule and added that testing every other year provides the ability for better interpretation of the results.

Tom Taggart asked for clarification on the pharmaceutical analysis table. Dr. Furl answered that numbers used in the table are based on lab results and that the full report can be made available upon request. Mr. Pence added that EAHCP staff are open to a full, detailed presentation on the results from the fish tissue analysis.

Carol Patterson asked if the analysis included an assessment on the presence of PAH (Polycyclic Aromatic Hydrocarbons). Dr. Furl did not know the specifics of every analysis conducted but was available to discuss the details of the report with all those interested.

Ken Diehl asked if Dr. Brooks reviewed the results of the fish tissue analysis. Dr. Furl answered that Dr. Brooks has reviewed the results and provided feedback and interpretation on the data. Mr. Diehl asked if there had been any detections of PPCPs in the tissue samples and how that detection could indicate a leak in a sewer system. Mr. Pence answered that location of the tissue sample may have an impact on interpretation of the data.

Carol Patterson noted that the EAA Board recently passed a regulation of PAH in the spring systems and that it would be interesting to study its presence in the systems over time.

Johnathan Stinson asked when the samples were collected. Dr. Furl answered that the samples were collected May 2017.

Dr. Furl updated the committee on the Water Quality and Biological Monitoring contracts. Many of the contracts are set to expire at the end of 2018. The EAA is now accepting proposals through the term of the ITP for both monitoring programs. Much of the work will be very similar to what has been done in the past.

Andrew Sansom asked, that since Texas Wild-Rice has become a dominant species, is it possible that it could be removed from the Endangered Species list. Mr. Pence answered, that although it has become prevalent within the system, it is not likely that Texas Wild-Rice will be delisted due to its limited natural location.

Mr. Pence added that, based on commitments and conversations with the Stakeholder and Implementing committees, Zebra Mussel detection stations have been added to the Comal and San Marcos Spring Systems. However, it is highly unlikely that the presence of Zebra Mussels will be detected.

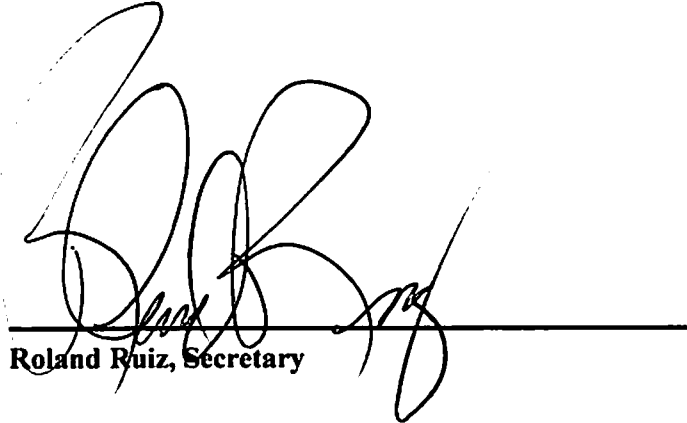
Johnathan Stinson added, due to the detection of Zebra Mussels in the Colorado River, the City of Austin is advising individuals to take all precautions when recreating.

8. Consider future meetings, dates, locations, and agendas.

- Next Implementing Committee meeting is scheduled for May 17th at the City of San Marcos Activity Center.

9. Questions from the public.

10. Adjourn: 10:56am



A handwritten signature in black ink, appearing to read 'Roland Ruiz', is written over a solid horizontal line. The signature is stylized with large loops and a long trailing stroke.

Roland Ruiz, Secretary



NOTICE OF OPEN MEETING

Available at eahcp.org

As required by Section 7.7.4 of the Funding and Management Agreement (FMA), an interlocal agreement made pursuant to Texas Government Code Chapter 791 by and among the Edwards Aquifer Authority (EAA), the City of New Braunfels (New Braunfels), the City of San Marcos (San Marcos), the City of San Antonio acting by and through its San Antonio Water System (SAWS), Texas State University, and the Guadalupe-Blanco River Authority (GBRA), a meeting of the **Implementing Committee** of the **Edwards Aquifer Habitat Conservation Plan Program** is scheduled for **9:00 am on Thursday, May 17th, 2018** at the **City of San Marcos Activity Center, 501 E Hopkins St., San Marcos, TX, 78666**.

Members of this committee include: Tom Taggart (San Marcos), Roland Ruiz (EAA), Greg Malatek (New Braunfels), Darren Thompson (SAWS), Andrew Sansom (Texas State University), and Jonathan Stinson (GBRA). At this meeting, the following business may be considered and recommended for committee action:

1. Call to order--Establish that all Committee members are present or represented – 9:00am
2. Public Comment.
3. Approval of minutes from the March 22nd Implementing Committee meeting (Attachment 1).
4. Receive report from the Program Manager on general topics related to the Habitat Conservation Plan.
 - Springflow and Index Level Update
 - J17 Forecast
 - Stormwater sampling
 - ASR Operations by SAWS
 - ASR Price Point Update
 - Budget Report (Attachment 2 and 3)
 - NAS update
 - Zebra Mussel Monitoring Stations
 - IC Appointments (Attachment 4)
5. Presentation of the 2017 Recharge Estimate and 10-year Rolling Recharge Average.
Purpose: To present to the Implementing Committee the 2017 Recharge estimate and subsequent 10-year rolling recharge average update.
Action: No action required.
6. Presentation of the Edwards Aquifer Authority 2019 Work Plans (Attachment 5).
Purpose: To provide the Implementing Committee the opportunity to review and comment on aspects of the Edwards Aquifer Authority 2019 Work Plan.
Action: No action required

7. Presentation of the City of San Marcos/Texas State University 2019 Work Plans (Attachment 6).
Purpose: To provide the Implementing Committee the opportunity to review and comment on aspects of the City of San Marcos/Texas State University 2019 Work Plan.
Action: No action required
8. Presentation of the City of New Braunfels 2019 Work Plans (Attachment 7).
Purpose: To provide the Implementing Committee the opportunity to review and comment on aspects of the City of New Braunfels 2019 Work Plan.
Action: No action required
9. Presentation of the timeline and process to facilitate Strategic Adaptive Management (Attachment 8).
Purpose: To present the Strategic Adaptive Management Process Planning White Paper to the Implementing Committee for comment and discussion.
Action: No action required
10. Presentation and consideration to approve the Voluntary Irrigation Suspension Program Option (VISPO) memo of clarification and authorization for the Program Manager to submit the memorandum to U.S Fish and Wildlife Services (Attachment 9).
Purpose: To present and obtain approval of the VISPO memo of clarification.
Action: To approve the submission of the VISPO memo of clarification.
11. Consider future meetings, dates, locations, and agendas.
 - Next Implementing Committee meeting is scheduled for June 21st at the City of New Braunfels City Hall.
12. Questions from the public.
13. Adjourn.



**Implementing Committee
Meeting Minutes
May 17, 2018**

Members of this committee include: Tom Taggart (San Marcos), Roland Ruiz (EAA), Greg Malatek (New Braunfels), Darren Thompson (SAWS), Robert Mace (Texas State University), and Jonathan Stinson (GBRA).

1. Call to order – 9:04am

Darren Thompson called order for the Committee. Melani Howard substituted for Robert Mace. A quorum was present.

2. Public Comment.

No comments.

3. Approval of minutes from the March 22nd Implementing Committee meeting (Attachment 1).

Tom Taggart made a motion to approve the meeting minutes. Roland Ruiz seconded the motion. There were no objections.

4. Receive report from the Program Manager on general topics related to the Habitat Conservation Plan.

- **Springflow and Index Level Update**

Dr. Chad Furl presented the springflow data on the Comal and San Marcos spring systems, an update on the Index Well levels and precipitation estimates of the region.

Nathan Pence noted the trend of low precipitation and demand for significant rainfall to deviate from future drought estimates.

- **J17 Forecast**

Dr. Furl presented the J17 forecast as of April 10th. There is a 25% chance of hitting Stage 1 before May 29th.

Darren Thompson added the possible outlook of hitting Stage 1 next weekend and Stage 2 in late June. Conditions below Stage 2 are not expected; however, circumstances could change depending on the weather.

- **Stormwater sampling**

Dr. Furl presented the two stormwater sampling events that have occurred as part of the EAA's Water Quality Monitoring program.

Tom Taggart asked, in relation to stormwater sampling, is there any attempt to profile the rainfall that occurs during a storm. Dr. Furl answered that there are specifics in the contract that describe antecedent conditions to conduct stormwater sampling. Mr. Taggart asked if

there is any analysis to determine what types of runoff may occur based off rain intensity. Dr. Furl answered that although that type of analysis is not currently conducted, it is something that will be considered in the future.

Nathan Pence added that during the Science Committee meeting, individuals from Texas A&M AgriLife, Baylor University and Texas State University presented stormwater sampling data that included hydrological analysis along Sessoms Creek. Mr. Pence noted the possibility of incorporating that type of analysis into EAA's Water Quality Monitoring Program.

Dr. Furl presented water quality data collected at the Comal Springs during the latest stormwater event and the current Biological and Water Quality Monitoring contract process.

Darren Thompson asked if the new two-year contracts will extend to 2028 or if they will require a new RFP. Dr. Furl clarified that the current process is asking for two-year contracts, once those contracts expire, new RFPs will be created to extend to 2028.

Johnathan Stinson asked if the current contractors are eligible to apply for the new long term contracts. Dr. Furl and Mr. Pence answered that the current contractors will have the opportunity to apply.

- **ASR Operations by SAWS**

Darren Thompson provided an update on ASR operations. 16,667 ac-ft of water was noticed to SAWS by the EAA. 9,933 ac-ft of water for that notice has been stored. As of today, a total of 92,000 ac-ft of water has been stored on behalf of the EAHCP. Over the last week SAWS has stopped storing to conduct a test to ensure that pumps and pipes are working properly.

Tom Taggart asked if this test was in preparation for a pipeline. Darren Thompson answered that SAWS has begun placing the Western Integrated Pipeline and it is about half way near completion.

- **ASR Price Point Update**

Roland Ruiz provided an update on the ASR Price Point. The EAA Board has approved the updated price points to \$100. The updated ASR program is now on the market for customers. Mark Friberg added that a majority of customers have had questions about the recent change to the program and interest in reenrollment.

Tom Taggart asked how many acre-feet of water was removed from the ASR program with the termination of 1-year leases. Mark Friberg answered about 20,000 acre-feet of water was been removed. Nathan Pence added that the removal of those 1-year leases are meant to be replaced with forbearance agreements that have been approved through adaptive management.

- **Budget Report (Attachment 2 and 3)**

Nathan Pence presented the March and April EAHCP budget reports.

- **NAS update**

Nathan Pence provided a brief update on Report 3 from the National Academy of Sciences. Report 3 is expected by late September 2018 and will be critical in the preparation of Phase 2

of the HCP. Mr. Pence shared that there is some concern that the report could be submitted later than expected however, conversations with NAS are working to fix that issue.

Darren Thompson asked why the possible delay in receiving the report. Mr. Pence answered that there may be issues with staffing coordination that could delay the finalization of the report.

- **Zebra Mussel Monitoring Stations**

Nathan Pence provided an update on Zebra Mussel Monitoring along the San Marcos and Comal spring systems. EAA is now part of the TPWD statewide monitoring network. Based on the water quality of both systems, it is highly unlikely that Zebra Mussels will be present.

- **San Marcos Discovery Center**

Nathan Pence introduced the San Marcos Discovery Center's initiative to keep non-native fish out of the river by providing a place for individuals to release unwanted aquarium fish. Melani Howard highlighted the attention that the Discovery Center's pet fish pond as received. A video clip from a local news station was presented to the committee. Mr. Pence acknowledge the collaborative efforts to make project like this successful.

Tom Taggart recommending sending the news clip to NAS.

- **IC Appointments (Attachment 4)**

Nathan Pence presented the updated Implementing Committee appointments. Robert Mace will be representing Texas State University, replacing Andrew Samson. Contact information can be made available upon request.

Darren Thompson asked how Robert Mace's move to the Implementing Committee will impact the Science Committee. Mr. Pence answered that Robert Mace has resigned from the Science Committee to serve on the Implementing Committee, leaving a Science Committee vacancy. The Implementing and Stakeholder Committees will appoint a member and agree by consensus to fill that vacancy.

Mr. Pence also spoke to the committee concerning changes to the EAHCP staff. Alicia Reinmund-Martinez will be leaving her position as HCP Director. Mr. Pence and the committee bid farewell to Mrs. Reinmund-Martinez and thanked her for her years of service to the HCP program.

5. **Presentation of the 2017 Recharge Estimate and 10-year Rolling Recharge Average.**

Nathan Pence presented the 2017 recharge estimates provided to the EAA from the USGS. Mr. Pence reminded the committee on the importance of the recharge estimates and the impact on the ASR forbearance program. For example, anytime the recharge average drops below 500,000 acre-feet on the 10-year rolling recharge average, that would trigger a portion of the ASR program. In 2017, as calculated by the USGS, the recharge estimate reached about 486,637 acre-feet. Based on that estimate, 2019 will be a non-forbearance year. For 2018, a calculation determined that the recharge average must be no less than 194,563 acre-feet in order to make 2020 a non-forbearance year.

Dr. Chad Furl presented a graph representing historical data of the USGS recharge estimates and the 10-year rolling recharge average.

Darren Thompson noted that the only time recharge has dropped below 500,000 acre-feet was during the drought of record.

6. Presentation of the Edwards Aquifer Authority 2019 Work Plans (Attachment 5).

Nathan Pence introduced the EAHCP work plans to the committee. Many of the details within the work plans have become routine and repetitive. At the request of the committee, work plan presentations will highlight major projects and significant changes. Full work plans have been included as attachments in the meeting packets.

Shaun Payne presented the 2019 Edwards Aquifer Authority Work Plan to the committee. The EAA's work plan primarily consists of springflow protection measures, research projects, monitoring programs and program management.

Mr. Pence added that the overall budget is subject to change. EAA will submit a revised work plan in June and an updated funding application in October. Mr. Pence reminded the committee that the budget is approved during funding application review.

Darren Thompson asked about the budget estimate for the applied research project. Mr. Payne clarified that the budget for the applied research will require funding taken from future years. The funding application will include a more refined budget table.

Mr. Thompson suggested making the work plan budget tables more consistent across the various work plans.

7. Presentation of the City of San Marcos/Texas State University 2019 Work Plans (Attachment 6).

Melani Howard presented the City of San Marcos/Texas State University 2019 Work Plan to the committee. The Texas Wild-Rice enhancement, control of non-native plant species, native riparian habitat restoration and impervious cover/water quality protection conservation measures will experience the most change in comparison to previous work plans.

Nathan Pence noted that the LTBG reaches in San Marcos follow the same compliance by the USFWS as in the Comal spring system.

Melani Howard presented before and after pictures of habitat restoration along the San Marcos River. Mr. Pence noted the recruitment of the young bald cypress trees and recognized the work that the City of San Marcos has done to protect the banks of the river.

Ms. Howard concluded the presentation with details on water quality projects and the 2019 work plan budget.

Mr. Pence added that transfers and movement of money within the work plan budget are tracked and maintained by EAHCP staff.

Patrick Shriver asked if there will be any disturbance of endangered species in the Sessoms Creek Project area. Mr. Pence added that there are no endangered species within the Sessoms Creek habitat until the very bottom portion. Work will not be done in the portions that touch endangered species habitat.

8. Presentation of the City of New Braunfels 2019 Work Plans (Attachment 7).

Mark Enders presented the City of New Braunfels 2019 Work Plans to the committee. Aquatic vegetation restoration along the Old Channel, Landa Lake and Comal River will undergo several changes. Additionally, non-native species control, monitoring of gill parasite, native habitat

restoration and impervious cover conservation measures will also include changes in comparison to previous work plans.

Mr. Enders concluded his presentation with the plans to install a stormwater treatment vault included in the impervious cover/water quality protection measure and the estimated budget for 2019.

Nathan Pence noted how the impervious cover project, specifically the stormwater treatment vault, will directly impact the endangered species.

Darren Thompson asked what type of treatment will be used in the underground stormwater treatment vault. Mr. Enders answered that the vault will primarily be treating sediment and the material that accumulates in the sediment.

Mr. Pence presented to the committee a budget table that included the estimates for the EAHCP work plans and a timeline of the 2019 work plan and funding application approval process.

9. **Presentation of the timeline and process to facilitate Strategic Adaptive Management (Attachment 8).**

Nathan Pence introduced the strategic adaptive management process planning to the committee. The Strategic Adaptive Management Process Planning (SAMP) is the transition of Phase 1 of the HCP to Phase 2. Mr. Pence clarified the differences between Phase 2 and the transition to Phase 2, addressed the major questions that will arise during the transition phase, the use of the MODFLOW model and the possibility of additional conservation measures to be included in Phase 2.

Mr. Pence presented a table of the minimum springflow rates established for the protection of the endangered species in both the Comal and San Marcos Spring Systems.

Tom Taggart noted that the variation between the high and low springflow estimates are very indicative of the health of the spring systems. Mr. Pence agreed with Mr. Taggart and expanded on the springflow numbers in the table.

Melani Howard asked what differences in the new model produced those numbers. Mr. Pence answered that there has been a lot of research analyzing the Knippa Gap, Cibolo Divide and porosity that have provided the data to refine the model. Dr. Chad Furl added that seven criteria were added to the new model including additional wells and the change in the aquifer elevation.

Mr. Pence noted that some of the model estimates may be difficult to achieve and may require a rerun of the model itself.

Darren Thompson added that the model estimates may be overly conservative. Mr. Pence added that the modeling assumes that the aquifer is used to full permitting capacity.

Mr. Pence presented the use of the MODFLOW Model in SAMP. The updated model will exclude original assumptions and include to date implementation of springflow protection measures. If needed, additional conservation measures may be added to achieve springflow protection.

Tom Taggart suggested a process of presenting and highlighting modeling assumptions before implementing a model. Mr. Pence answered that the EAA will document very clearly what models runs were made and the assumptions that were included. Mr. Taggart added that it is important to

have transparency about any assumptions made so to avoid topics of concerns. Mr. Pence added that anything raised as an issue today will be reviewed during the June IC meeting.

Roland Ruiz asked if USFWS has had any concerns of the movement from Phase 1 to Phase 2 and the Strategic Adaptive Management process required. Mr. Pence answered that USFWS is not concerned and they are highly supportive of the EAHCP.

Tom Taggart added that there are always underlying assumptions in modeling. The Phase 1/Phase 2 transition reflects those uncertainties.

Mr. Pence concluded the presentation with updates on the EcoModel, habitat restoration, NAS Report 3, contract development for the SAMP and the overall SAMP timeline.

10. Presentation and consideration to approve the Voluntary Irrigation Suspension Program Option (VISPO) memo of clarification and authorization for the Program Manager to submit the memorandum to U.S Fish and Wildlife Services (Attachment 9).

Marc Friberg presented the VISPO memo of clarification to the committee. The EAA is asking USFWS to clarify the specificities outlined in the HCP concerning the VISPO program. This clarification does not include deviating from the amount of water specified or the overall goals of the program. The primary concerns are associated with price points, the program term options and the escalators proposed in the original VISPO program. Essentially, the EAA is seeking clarification on those specifics and the flexibility to adjust to market conditions. Moving forward, the EAA will no longer offer 10-year enrollment options and instead work through two, five-year renewals options.

Nathan Pence added that this clarification will allow for reenrollment and the continuation of the VISPO program.

Roland Ruiz made a motion to approve the VISPO memo of clarification and the authorization for the Program Manager to submit the memo to USFWS. Tom Taggart seconded. There were no objections.

11. Consider future meetings, dates, locations, and agendas.

Darren Thompson noted that the next Implementing Committee meeting is scheduled for June 21st at the City of New Braunfels City Hall.

12. Questions from the public.

No comments.

13. Adjourn -- 11:57 am