Appendix D | **2022 USFWS Correspondence**

Appendix D1 | **EAHCP Response Letter to USFWS 5yr Review of Texas Wild-Rice**

EDWARDS AQUIFER
AUTHORITY

February 28, 2022

Mr. Chuck Ardizzone
United States Fish and Wildlife Service
Texas Coastal Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, Texas 77058

RE: Response to comment on the 5-year status review of *Zizania texana* (Texas wild-rice).

Dear Mr. Ardizzone,

The Edwards Aquifer Habitat Conservation Plan (EAHCP) is a regional partnership of state and local agencies working to protect and enhance habitat and populations of the species covered under the EAHCP which includes *Zizania texana* (Texas wild-rice) and 10 other endangered, threatened, or petitioned species (Covered Species). The EAHCP protects these species through conservation measures aimed at ensuring springflows and restoring and conserving species habitats, as well as, monitoring biological and water quality conditions, performing applied research, and maintaining off-site refugium in partnership with the U.S. Fish and Wildlife Service (USFWS). The sections to follow describe work performed through this regional partnership of Permittees (the Edwards Aquifer Authority [EAA], the City of New Braunfels, the City of San Marcos, Texas State University, and the City of San Antonio acting by and through its San Antonio Water System [SAWS] Board of Trustees) included in the Incidental Take Permit TE-63663A-1 (ITP).

The work performed under the EAHCP is based on the consensus of the Permittees and other regional stakeholders working through committees. Stakeholders work in partnership to enhance the habitat and balance the needs of threatened and endangered species with the needs of Edwards Aquifer groundwater users in the region.

Background

The EAHCP is the primary document that establishes the cooperative effort to protect the water of the San Antonio Segment of the Edwards (Balcones Fault Zone) Aquifer (Aquifer) both for people in the region and the threatened and endangered species that inhabit the Aquifer, and aquatic spring environments whose water largely emanates from the Aquifer. This effort began when regional stakeholders and the USFWS initiated the Edwards Aquifer Recovery Implementation Program (EARIP) in 2006. Through statute, the Texas Legislature mandated participation in the process by the EAA, Texas Commission on Environmental Quality, Texas Department of Agriculture, Texas Parks & Wildlife Department (TPWD), and Texas Water Development Board, among others. The EARIP planning group led to the creation of the current process known as the EAHCP Program, which has now been fully transitioned from the EARIP. The EAHCP was completed in November 2012 and led to the approval of the ITP TE-63663A-1 under Section 10(a) of the federal Endangered Species Act of 1973. The ITP was issued in February 2013 by the USFWS to be effective in March 2013 through March 2028.

Springflow Protection

Four conservation measures are outlined in the EAHCP to maintain springflows in the San Marcos springs during certain drought conditions providing habitat for Texas wild-rice. These four conservation measures are (1) Stage V Critical Period Management, (2) Voluntary Irrigation Suspension Program Option (VISPO), (3) Regional Water Conservation Program (RWCP), and (4) Aquifer Storage and Recovery (ASR).

Habitat Restoration

The EAHCP allocates $12,380,000 over the 15-year term of the ITP toward planting Texas wild-rice, removing non-native vegetation and animals, planting aquatic and riparian native vegetation, management of floating vegetation, and litter removal to restore habitat for EAHCP Covered Species in the San Marcos and Comal rivers. The effect of these efforts on Covered Species habitat and population abundance are documented through the EAHCP's biological monitoring efforts and in the EAHCP Annual Reports.

Biological and Water Quality Monitoring

The EAHCP allocates $9,000,000 over the 15-year term of the ITP toward biological and water quality monitoring. Biological and water quality monitoring occur each year for the geographic area covered by the ITP in the San Marcos River to monitor changes in habitat conditions and abundance of ITP Covered Species.

The biological monitoring program consists of surveys conducted at least twice annually including a full system mapping of Texas wild-rice in August of each year, full system aquatic vegetation mapping of the San Marcos River once every five years, aquatic vegetation mapping of Long-Term Biological Goal reaches twice per year, continuous thermistor temperature monitoring and water quality sampling. Additional critical period monitoring occurs when flows in the San Marcos River are less than 120 cfs at USGS gage no. 08170500.

Refugia

A contract between the EAHCP and USFWS established two geographically different locations where captive stocks of Texas wild-rice are housed. Research on this species is being performed under this contract.

Please contact the EAHCP Program Manager, Scott Storment (sstorment@edwardsaquifer.org or 210-477-8527), directly to request electronic files of the data collected as part of the EAHCP.

Respectfully,

Scott D Storment (Feb 28, 2022 16:04 CST)

Scott D. Storment
EAHCP Program Manager
Edwards Aquifer Authority

HABITAT CONSERVATION PLAN EDWARDS AQUIFER

Response to USFWS 5-Year Status Review_TWR_02.16.2022_v6-Feb. 28 2022

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Appendix D2 | **San Marcos Condition M Trigger on 6/3/2022**

EDWARDS AQUIFER
AUTHORITY

June 3, 2022

Mr. Adam Zerrenner
U.S. Fish and Wildlife Services
10711 Burnet Rd., Suite 200
Austin, Texas 78758

RE: San Marcos River - Implementation of Condition M of Permit TE63663A-1

Dear Mr. Zerrenner:

This letter is to inform you that the Permittees of the Edwards Aquifer Habitat Conservation Program (EAHCP) Incidental Take Permit, Number TE63663A-1 (ITP), have reduced and suspended habitat and riparian restoration activities as required by Condition M of the ITP in the San Marcos River system.

On June 1, 2022, the USGS flow gauge #08170500 San Marcos River at San Marcos, Texas (Sewell Park) recorded a discharge of less than 120 cfs. Since then, the flow continues to fluctuate between a range of 120 cfs and below. Based on these low flow conditions, habitat mitigation and restoration activities have been reduced to limit the disturbance of the substrate, water quality, plants, animals and invertebrates.

In 2014, the USFWS approved a clarification to the terms of Condition M and authorized the continuance of specific activities that may be implemented during low flow conditions. These covered measures and USFWS-approved activities are attached as Exhibit 1. Measures missing from the clarification table, such as riparian restoration, etc., will assume the original interpretation of Condition M as stated in the ITP.

As low flows persist, biological and water quality monitoring activities will be conducted to determine habitat availability and impacts to the Covered Species. Habitat and riparian restoration restrictions will continue until the San Marcos River flow increases and stabilizes above the 120 cfs low flow trigger.

Please let me know if you have any questions.

Sincerely,

Scott D. Storment
Scott D. Storment (Jun 3, 2022 15:49 CDT)

Scott D. Storment
Edwards Aquifer Habitat Conservation Plan Program Manager

EXHIBIT 1

San Marcos Conservation Measures	Interpretation	Specific activities that may continue at all flows
Enhancement and restoration of Texas WildRice (Sections 5.3.1 and 5.4.1)	Suspending gardening and maintenance of restored areas will allow non-native plants to regrow, negating the work already done.	Gardening, such as the removal of non-native plant regrowth, in previously restored areas, Sewell and City Park, in a manner that limits increased disturbance.
Management of public recreational use (Sections 5.3.2 and 5.4.2)	Continuing management of public recreation areas assures minimal impact and disturbance from recreational users.	University students are trained to assist the public, increase the awareness of the issues.
Management of aquatic vegetation and litter below Sewell Park (Section 5.3.3 and 5.4.3)	The removal of litter and removal of floating vegetation management has a positive effect on the system by helping to maintain habitat with a very limited impact on the substrate.	Removal of floating vegetation and litter by working from a barge, flatbottom boat or kayak when practical, with a minimum number of workers in the water to limit increased disturbance, such as pushing floating vegetative mats downstream. All areas for maintenance will be represented on vegetation maps.
Prohibition of hazardous materials transport (Section 5.3.4)	Management of household, hazardous wastes is a terrestrial activity	No further detail needed.
Reduction of non-native species introduction (Section 5.3.5 and 5.4.11)	Not conducted in the aquatic ecosystem.	No further detail needed.
Management of non-native plant species (Sections 5.3.8 and 5.4.12)	Removal of non-native plants is more efficient during low flows. Suspending this activity will allow non-native plants to regrow, negating work already done.	Gardening, such as removing one-meter sections adjacent to restored Texas Wild Rice stands from Spring Lake to Ramon Lucio park. All areas for maintenance will be represented on vegetation maps.
Management of harmful non-native and predator species (Sections 5.3.9 and 5.4.13)	Low flow conditions reduce the area that non-native fish have, making it easier to spear or net them. Greater numbers will be removed from the system at a time when they are most likely to cause damage.	Bow fishing of non-native animals from shore or flatbottom boats. Spear fishing will be done in the water.
Research programs in Spring Lake (Section 5.4.8)	Continuing review and education of researchers to ensure there is no impact on the Covered Species.	Research programs will not include boating related activities.
Management of golf course and grounds (Section 5.4.9)	Continued planning and management of the Golf Course assures minimal impact or disturbance of the aquatic ecosystem.	No further detail needed.
State Scientific Areas (Section 5.6.1)	Continuing management of public recreation assures minimal impact or disturbance of the aquatic system at reduced flows.	Maintenance and installation of signage and barriers, by standing from a boat.

San Marcos Conservation Measures	Interpretation	Specific activities that may continue at all flows
Implementation of septic system registration and permitting program (Section 5.7.3)	Not conducted in the aquatic ecosystem.	No further detail needed.
Management of potentially contaminated runoff (Section 5.7.4)	Construction of two sedimentation ponds to help reduce contaminated materials will not disturb covered species habitat.	No further detail needed.
Management of household hazardous wastes (Section 5.7.5)	Management of household, hazardous wastes is a terrestrial activity.	No further detail needed.

Appendix D3 | **New Braunfels Condition M Trigger on 6/17/2022**

EDWARDS AQUIFER
AUTHORITY

June 17, 2022

Mr. Adam Zerrenner
U.S. Fish and Wildlife Services
10711 Burnet Rd., Suite 200
Austin, Texas 78758

RE: Comal River - Implementation of Condition M of Permit TE63663A-1

Dear Mr. Zerrenner:

This letter is to inform you that the Permittees of the Edwards Aquifer Habitat Conservation Program (EAHCP) Incidental Take Permit, Number TE63663A-1 (ITP), have reduced and suspended aquatic and riparian restoration activities as required by Condition M of the ITP in the Comal River system.

On June 16, 2022, the USGS flow gauge #081690000 Comal River at New Braunfels, Texas recorded a discharge of less than 130 cfs. Since then, the flow continues to fluctuate between a range of 130 cfs and below. Based on these low flow conditions, habitat mitigation and restoration activities have been reduced to limit the disturbance of the substrate, water quality, plants, animals and invertebrates.

In 2014, the USFWS approved a clarification to the terms of Condition M and authorized the continuance of specific activities that may be implemented during low flow conditions. These covered measures and USFWS-approved activities are attached as Exhibit 1. Measures missing from the clarification table, such as riparian restoration, etc., will assume the original interpretation of Condition M as stated in the ITP.

As low flows persist, biological and water quality monitoring activities will be conducted to determine habitat availability and impacts to the Covered Species. Aquatic and riparian restoration restrictions will continue until the Comal River flow increases and stabilizes above the 130 cfs low flow trigger.

Please let me know if you have any questions.

Sincerely,

Scott D. Storment
Scott D. Storment (Jun 17, 2022 11:54 CDT)

Scott D. Storment
Edwards Aquifer Habitat Conservation Plan Program Manager

EXHIBIT 1

Comal Conservation Measures	Interpretation	Specific activities that may continue at all flows
Management of river flow between old and new channels of the Comal River (Section 5.2.1)	The actual management of the flow that is split between the New Channel and the Old Channel is designed to minimize and mitigate the impacts of incidental take in reduced flow conditions.	Manipulation of gates in accordance with the City of New Braunfels flow-split system standard operating procedures to be in accordance with EAHCP Table 5.3.
Restoration and maintenance of native aquatic vegetation (Section 5.2.2)	Maintenance of native aquatic vegetation includes gardening to increase preferred fountain darter habitat during reduced flow conditions.	Gardening, such as removal of non-native vegetation, in previously restored areas such as in the Old Channel and Landa Lake. Extra precautions, such as minimizing the number of gardeners in water, working from downstream to upstream and not tilling the substrate to remove vegetation will be employed to reduce disturbance of sediment.
Management of public recreational use (Section 5.2.3)	Continuing management of public recreation areas assures minimal impact and disturbance from recreational users.	Printing and distribution of educational materials, signage, and workshops.
Removal of decaying vegetation and dissolved oxygen management (Section 5.2.4)	The removal of the vegetative mats and the implementation of a dissolved oxygen management program helps to maintain healthy, preferred fountain darter habitat during reduced flows.	Gardening, such as the removal of decaying vegetation by working from a flat-bottom boat or kayak when practical, minimizing the number of workers in the water and working upstream to downstream to limit increased disturbance, such as pushing floating vegetative mats downstream.
Management of harmful non-native animal species (Sections 5.2.5 and 5.2.9)	Low flow conditions reduce the area that non-native fish have, making it easier to spear or net them. Greater numbers will be removed from the system at a time when they are most likely to cause damage.	Spear and bow fishing of non-native animals.
Prohibition of hazardous material transport (Section 5.2.7)	Not conducted in the aquatic ecosystem.	No further detail needed.

Comal Conservation Measures	Interpretation	Specific activities that may continue at all flows
Live bait prohibition (Section 5.2.9)	Not conducted in the aquatic ecosystem.	No further detail needed.
Litter collection and floating vegetation management (Section 5.2.10)	The removal of litter and removal of floating vegetation management has a positive effect on the system by helping to maintain habitat with a very limited impact on the substrate.	Removal of floating vegetation and litter by working from a barge, flatbottom boat or kayak when practical, with a minimum number of workers in the water that limits increased disturbance, such as pushing floating vegetative mats downstream. All areas for maintenance will be represented in vegetation maps.
Management of golf course diversions and operations (Section 5.2.11)	Continued planning and management of the Golf Course assures minimal impact or disturbance of the aquatic ecosystem.	No further detail needed.
Management of household hazardous wastes (Section 5.7.5)	Management of household, hazardous wastes is a terrestrial activity.	No further detail needed.

Appendix D4 | **VISPO Trigger Notification**

November 14, 2022

EDWARDS AQUIFER
AUTHORITY

Ms. Karen Myers
c/o Christina Williams
U.S. Fish and Wildlife Service
1505 Ferguson Ln
Austin, TX 78754

RE: Informational Memorandum regarding the Edwards Aquifer Habitat Conservation Plan Voluntary Irrigation Suspension Program Option Forbearance Agreement.

Dear Ms. Myers:

This letter is submitted on behalf of the City of New Braunfels (CONB), the City of San Marcos (COSM), the Edwards Aquifer Authority (EAA), the San Antonio Water System (SAWS), and Texas State University (collectively the Permittees of Incidental Take Permit (ITP) (TE63663A-1)) to inform the U.S. Fish and Wildlife Service on the implementation of the Voluntary Irrigation Suspension Program Option (VISPO) springflow protection measure as discussed in Section 5.5.1 of the Edwards Aquifer Habitat Conservation Plan (EAHCP).

The purpose of VISPO is to allow Edwards Aquifer Authority groundwater permit holders participating in the program to be financially compensated to suspend withdrawal of enrolled water during low springflow conditions. If the J-17 index well in San Antonio is at or below 635 feet above mean sea level (msl) on October 1, VISPO participants are required to suspend use of their enrolled water for the entire calendar year that follows, beginning January 1.

On October 1, 2022, the J-17 index well was at 631.7 feet above msl. Therefore, beginning on January 1, 2023, VISPO participants are required to suspend withdrawals of enrolled water for the amounts agreed upon in their individual agreements.

If aquifer conditions improve dramatically, and J-17 is above 660 feet msl on January 1, 2023, VISPO participants will have the option to not forbear the enrolled water. However, participants will forgo any payments for forbearance and the enrolled water will be subject to any Critical Period reductions in effect for 2023.

Kind regards,

Scott D. Storment
Program Manager
Edwards Aquifer Habitat Conservation Plan

Appendix D5 | **Comal River State Scientific Area Clarification**

November 23, 2022

Ms. Karen Myers
c/o Christina Williams
U.S. Fish and Wildlife Service
1505 Ferguson Ln
Austin, TX 78754

RE: Clarification to Sections 2.7, 5.2.2.2, 5.6.1, 5.8.3.1, and 9.1.1 of the Edwards Aquifer Habitat Conservation Plan relative to a State Scientific Area in the Comal Spring System.

Dear Ms. Myers,

This letter is submitted on behalf of the City of New Braunfels (CONB), the City of San Marcos (COSM), the Edwards Aquifer Authority (EAA), the San Antonio Water System (SAWS), and Texas State University (collectively the Permittees of Incidental Take Permit (ITP) (TE63663A-1)) and the Texas Parks and Wildlife Department (TPWD) to advise of a clarification regarding the establishment of a TPWD State Scientific Area (SSA) in the Comal Spring System as discussed in Sections 2.7, 5.2.2.2, 5.6.1, 5.8.3.1, and 9.1.1 of the Edwards Aquifer Habitat Conservation Plan (EAHCP).

An SSA may be established for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value for threatened and endangered species. TPWD is authorized to establish an SSA under the Parks and Wildlife Code (Sections 13.101 and 81.501).

Relative to the establishment of an SAA in the Comal Spring System, the EAHCP provides as follows:

> Section 2.7: “TPWD also will pursue the creation of state scientific areas in the Comal Springs ecosystem for the protection of existing fountain darter habitat and additional habitat created by the City of New Braunfels.”
>
> Section 5.2.2.2: "Once the habitat has been established, TPWD will pursue creation of State Scientific Areas to protect fountain darter habitat."

> Section 5.6.1: "In order to protect existing and restored fountain darter habitat, TPWD will pursue creation of state scientific areas in the Comal Springs ecosystem."
>
> Section 5.8.3.1: "Similar state scientific areas will be established in the Comal River to protect restored fountain darter habitat."
>
> Section 9.1.1: "The TPWD will be signing to reflect certain limited obligations it has and will undertake to issue regulations creating state scientific areas in the Comal and San Marcos rivers."

On May 23, 2019, the Implementing Committee approved the Comprehensive Phase II Work Plan for the EAHCP and clarified the above sections of the EAHCP by changing that TPWD "may pursue," instead of "will pursue," the designation of an SSA in the Comal Spring System, "if necessary."

The CONB's Code of Ordinances include several sections that limit or prohibit recreation in portions of Landa Lake, the Old Channel of the Comal River and the Mill Race of the Comal River. These ordinances include:

> Section 86.6 which provides that it is an offense for any person, child, or adult, to enter, wade, swim or engage in any aquatic activity in any portion of Landa Park Lake or any waterway or spring area flowing into Landa Park Lake between spring areas adjacent to the entrance/exit to/from Landa Park and Landa Park Lake.
>
> Section 86-4 (a) which provides that it shall be unlawful for any person to launch any type of boat, canoe, water vehicle or floatation device from the banks of Landa Park Lake within designated park areas.
>
> Section 86-4 (i) which provides that it shall be unlawful for any person to wade or swim in any pond, stream (i.e. the Old Channel of the Comal River), or water hazard within the boundaries of the Landa Park Golf Course.
>
> Section 142-5 provides that it is an offense and violation of this section for any person, child, or adult to enter, wade, swim, float or engage in any aquatic activity in any portion of the waterway between Landa Park Lake and the confluence with the Comal River (Dry Comal Creek).

Due to the implementation of CONB's ordinances, the establishment of an SSA in Landa Lake and Comal River is no longer necessary for these areas. The ordinances minimize impacts of recreational activities on Covered Species habitat in the Comal Springs ecosystem and in areas such as Landa Lake and the Old Channel of the Comal River where a majority of EAHCP-associated aquatic vegetation restoration and habitat improvements have taken place. In light of this, TPWD no longer needs to establish an SSA in the Comal Spring System as long as ordinances remain in place. TPWD may implement an SSA in the Comal Spring System if such ordinances are not effective in prohibiting recreational activities.

The Permittees and TPWD, therefore, advise the U.S. Fish and Wildlife Service of the clarification of Sections 2.7, 5.2.2.2, 5.6.1, 5.8.3.1, and 9.1.1 of the EAHCP and that it is no longer necessary for TPWD to create or establish an SSA in the Comal Spring System because CONB has adopted and is implementing several ordinances as an alternative to the establishment of an SSA in Landa Lake and the Comal River.

We ask for your confirmation that the replacement of a TPWD SSA in the Comal Springs System with the aforementioned sections of City Code, along with the interpretation of Sections 2.7, 5.2.2.2, 5.6.1, 5.8.3.1, and 9.1.1 of the EAHCP as no longer requiring the creation or establishment of an SSA in the Comal Spring System. We look forward to and appreciate your consideration on this matter.

Kind regards,

Scott D. Storment
Program Manager
Edwards Aquifer Habitat Conservation Plan