## SOUTHERN EDWARDS PLATEAU HABITAT CONSERVATION PLAN

#### **ENDANGERED SPECIES ACT**

#### INCIDENTAL TAKE PERMIT ANNUAL REPORT

#### FOR FY 2020 - 2021

#### **PERMIT NUMBER TE-48571B-0**

July 5, 2022

U.S. Fish and Wildlife Service Austin Ecological Services Field Office 10711 Burnet Road, Suite 200 Austin, Texas 78758

U.S. Fish and Wildlife Service, Region 2 Branch of Environmental Review P.O. Box 1306, Room 6034 Albuquerque, New Mexico 87103

RE: Annual Report for 2020 - 2021 Fiscal Year required by Endangered Species Act Incidental Take Permit TE-48571B-0 for the Southern Edwards Plateau Habitat Conservation Plan (SEP-HCP)

To whom it may concern:

This letter comprises the annual permit report for the 2020 - 2021 Fiscal Year (October 1, 2020 through September 30, 2021) for the Southern Edwards Plateau Habitat Conservation Plan (SEP-HCP), as required by Box 12. Reporting Requirements and Box 13. ANNUAL REPORT of permit number TE-48571B-0. "An annual report will describe the previous calendar year's activities in compliance with this permit and Section 12 of the SEP-HCP. Annual reports will be submitted each year for the duration of this permit area." SEP-HCP Section 12.1 requires the submission of an annual report "to document progress towards achieving the goals and objectives of the SEP-HCP and demonstrate compliance with the terms and conditions of the Permit."

This report was prepared by Blair Wildlife Consulting, LLC (BWC) on behalf of Bexar County, Texas and the City of San Antonio (the Permittees) and describes compliance with the permit between October 1, 2020 (permit effective date) and September 30, 2021.

In accordance with SEP-HCP Section 12.1, activities for the 2020 - 2021 Fiscal Year (October 1, 2020 through September 30, 2021) are reported below in the following sections and any required supporting information is included as attachments to this letter.

Although the Permit was issued February 5, 2016 and effective as of January 18, 2016, official acceptance and execution of the Permit by the Permittees occurred on April 18, 2017.

#### 1. SEP-HCP PARTICIPANTS AND ENROLLED PROPERTIES

A summary of participation in the SEP-HCP, including a list of Participants and Enrolled Properties and the corresponding acreages covered for incidental take for each of the Covered Species is included below.

A total of five Participants / Enrolled Properties occurred during the 2020 - 2021 Fiscal Year. The complete list of Participants and Enrolled Properties is included in **Attachment A**. An exhibit depicting the locations of each of the Enrolled Properties within the Permit Area is also included as part of **Attachment A**. Copies of all Participation Agreements and Participation Certificates for Participants and Enrolled Properties that occurred during the 2020 - 2021 Fiscal Year were provided to the Service at the time in which they were issued to the Participant, and therefore have not been included again as attachments to this report.

No Participants / Enrolled Properties reported occurrences of previously undiscovered voids or other karst features that were encountered during implementation of covered activities by the Participants/Enrolled Properties during the 2020-2021 Fiscal Year.

#### 2. SEP-HCP PRESERVE SYSTEM

No GCW or BCV preserves were established during the 2020 - 2021 Fiscal Year.

As part of the initial conservation actions required prior to beginning enrollment of participants in the SEP-HCP for the Covered Karst Invertebrates, the SEP-HCP established six (6) karst fauna areas (KFA) within Government Canyon State Natural Area (GCSNA) during the 2016 – 2017 Fiscal Year. Two additional KFAs, the Northern Preserve and Panther Springs Park Preserve, were established during the 2017 – 2018 Fiscal Year. The total preserve acres, the acres of suitable habitat for each of the Covered Species, and current status of the Conservation Baseline for the Covered Karst Invertebrates is included in **Attachment B**.

The Permittee's request that the Service provide an update of all other conservation actions completed by other sponsors in order to evaluate the current status towards achievement of the Conservation Baselines<sup>1</sup> as well as any information on new localities for the Covered Karst Invertebrates. The SEP-HCP may provide incidental take authorization for Covered Activities conducted within an Occupied Cave Zone only after certain baseline levels of conservation have been achieved for the Covered Karst Invertebrates that occur in the associated karst feature.

The Conservation Baselines are based on the downlisting criteria described in the Bexar County Karst Invertebrates Recovery Plan (USFWS 2011b). Achievement of the Conservation Baselines will be evaluated and determined on a species-by-species and region-by-region (i.e., by Karst Fauna Regions or "KFRs") basis. All qualifying conservation actions<sup>2</sup> that have been implemented for the Covered Karst Invertebrates will be considered in the determination, regardless of the sponsor of the conservation action. All karst preserves that the Service deems as contributing towards recovery of the Covered Karst Invertebrates will contribute to the karst Conservation Baseline, even if the preserves were protected by an entity or effort other than the SEP-HCP.

#### 3. SEP-HCP PRESERVATION CREDITS LEDGER

The conservation ledger documenting Preservation Credits generated and deducted for the GCW for the 2020 - 2021 Fiscal Year is included in **Attachment C**.

No BCV Preservation Credits were generated or deducted during the 2020 - 2021 Fiscal Year, as the species was delisted by the Service.

#### 4. SEP-HCP FINANCIAL STATUS

A summary of the financial status of the SEP-HCP, including the balance and performance of the non-wasting management endowment is included below and a copy of the financial statement is included in **Attachment D**.

The Interlocal Agreement executed by the Permittees on February 24, 2017 identifies the annual allocations and responsibilities of each Permittee and was provided to the Service upon execution and was included as part of the 2016 – 2017 Fiscal Year Annual Report.

The non-wasting management endowment was established during the 2017 – 2018 Fiscal Year as the SEP-HCP established two new preserves for the Covered Karst Invertebrates during the reporting period. All contributions were made in accordance with the SEP-HCP endowment requirements.

<sup>&</sup>lt;sup>1</sup> The Conservation Baselines are the minimum requirements needed for each of the Covered Karst Invertebrates within each KFR based on the downlisting criteria described in the Bexar County Karst Invertebrates Recovery Plan (USFWS 2011b).

<sup>&</sup>lt;sup>2</sup> Qualifying conservation actions would be any other activity outside of preserve acquisition, which would be considered and approved by the Service as contributing to the conservation baseline for the Covered Species. Examples of qualifying conservation actions could include, but are not limited to: surveying for new localities for the Covered Karst Invertebrates; establishing additional protections to currently known Covered Karst Invertebrate-occupied features; establishing protection of the areas surrounding a feature in the event that additional protective measures cannot be placed on the features entrance, or implementing protective measures necessary to improve the long-term viability of the occupied feature.

# 5. MANAGEMENT ACTIVITIES ON PRESERVE LANDS AND PRESERVE MANAGEMENT PLAN UPDATES

Management activities conducted on SEP-HCP preserve lands were conducted in accordance with the Government Canyon State Natural Area Karst Fauna Areas Management and Monitoring Plan dated February 6, 2017, Northern Preserve Karst Fauna Area Management and Monitoring Plan dated June 27, 2017, and Panther Springs Park Preserve Karst Fauna Area Management and Monitoring Plan dated September 14, 2018.

No updates to any Preserve Management Plans were completed during the 2020 - 2021 Fiscal Year.

# 6. BIOLOGICAL MONITORING ACTIVITIES ON PRESERVE LANDS AND OTHER SURVEYS OF THE COVERED SPECIES AND THEIR HABITATS

Biological monitoring activities were completed as part of the establishment and management of the Government Canyon State Natural Area Karst Fauna Areas, Northern Preserve, and Panther Springs Park Preserve. All results of the activities were reported as part of the annual reporting requirements for work conducted under Endangered Species Act Section 10[A][1][a] permit TE85077A-1.

#### 7. COMMUNITY EDUCATION AND OUTREACH PROGRAMS AND RESEARCH

The SEP-HCP conducts numerous education and outreach events, meetings, and notifications to inform potential applicants of the SEP-HCP program annually. Specific examples include Habitat Compliance Form reviews and coordination regarding development projects and option for participation in the SEP-HCP, meetings with potential applicants, meetings with staff, other departments, advisory boards, leadership, and elected officials regarding the SEP-HCP and implementation progress. The Permittees also continue to maintain an additional website that contains all necessary information on how to participate in the SEP-HCP; background information on the SEP-HCP, and its administration: <a href="https://www.sanantonio.gov/DSD/Constructing/SEP-HCP">https://www.sanantonio.gov/DSD/Constructing/SEP-HCP</a>.

Per condition T of the ITP TE48571B-1 and Section 4.5.3 of the SEP-HCP, Karst Participation Certificates will not be offered until the Permittees had secured some level of up-front mitigation for all of the Covered Karst Invertebrate Species. The level and type of mitigation obtained for each species will likely vary. The Permittees worked with the Service in determining when the appropriate level of up-front mitigation had occurred. For species like *C. venii*, with only two known but heavily impacted localities, options remained limited to satisfy the SEP-HCPs up-front mitigation requirements. Therefore, other conservation measures and/or recovery efforts which provide for some increased level of conservation were the only options to help satisfy up-front mitigation requirements. The SEP-HCP Permittees contracted with Dr. Marshal Hedin of San Diego State University to conduct a genetics study of the *Cicurina* spiders of Bexar County, Texas.

The research proposal and supporting information documented the conservation value of the proposed initial conservation action and proposed an initial conservation action for the Covered Karst Invertebrates within the *Cicurina* genus, more particularly for *Cicurina venii*, that was consistent with the terms and conditions of the SEP-HCP and accompanying ITP. As summarized in the research proposal, the Permittees request the approval of this initial conservation action as the required up-front mitigation for *Cicurina venii*. Additionally, approval of this initial conservation action also contributes to further understanding of the *Cicurina* genus within Bexar County, Texas, including *Cicurina madla* and *Cicurina vespera* (SEP-HCP Covered Karst Invertebrates), as well as *Cicurina baronia* and *Cicurina loftini*, which although not included as a SEP-HCP Covered Species or Voluntarily Conserved Species, also benefit from the upfront mitigation action.

The Service approved the proposed up-front mitigation action and the Permittees initiated and fully funded the *Cicurina* research study on August 17, 2016. The funding and initiation of the Cicurina research study satisfied the SEP-HCP's up-front mitigation actions for *Cicurina venii*, as well as benefited *Cicurina madla* and *Cicurina vespera*.

A copy of the research proposal was provided to and approved by the Service, prior to the initiation of the research program. As of June 25, 2018, the research program was completed and findings of the research project published in Hedin, M., S. Derkarabetian, J. Blair, and P. Paquin. 2018. Sequence capture phylogenomics of eyeless Cicurina spiders from Texas caves, with emphasis on US federally-endangered species from Bexar County (Araneae, Hahniidae). ZooKeys 769: 49-76. <a href="https://doi.org/10.3897/zookeys.769.25814">https://doi.org/10.3897/zookeys.769.25814</a>).

The paper established new taxonomic synonymies and range extensions for listed and non-listed Cicurina species in Bexar County as follows:

#### I. Species Synonymies

- » Cicurina venii Gertsch, 1992 = Cicurina madla Gertsch, 1992 The Braken Bat Cave meshweaver (Cicurina venii) is no longer a distinct taxonomic entity with specimens now assigned to Madla's Cave meshweaver (Cicurina madla). The former was a single site endemic and Madla's Cave meshweaver would now occupy that location.
- » Cicurina Ioftini Cokendolpher, 2004 = Cicurina vespera Gertsch, 1992 Cicurina Ioftini (no common name) is no longer a distinct taxonomic entity with specimens now assigned to the Government Canyon Bat Cave meshweaver (Cicurina vespera). The latter was a single site endemic but with revised taxonomy it subsumes all locations previously assigned to C. Ioftini in northwestern Bexar County.

#### II. Range Extensions

- » Madla's Cave meshweaver, *C. madla*: Based on revised taxonomy this species now occurs in the Culebra Anticline Karst Fauna Region.
- » Government Canyon Bat Cave meshweaver, C. vespera: Based on revised taxonomy its range is extended to 10-15 caves, formerly assigned to C. loftini in the Culebra Anticline Karst Fauna Region. This species has also now been documented to co-occur with Madla's Cave meshweaver in two caves. It was originally believed that blind Cicurinas did not co-occur.

In 2020, the SEP-HCP Permittees contracted with Dr. Marshal Hedin of San Diego State University to conduct additional genetics studies of the remaining *Cicurina* spider specimens available from locations within the SEP-HCP Permit Area, as well as new specimens collected since the original 2018 publication to better understand the distribution and potential for sympatry within the SEP-HCP Permit Area. That research is ongoing and the Permittees will provide and update to the Service as soon as any preliminary results are provided.

#### 8. ADAPTIVE MANAGEMENT RECOMMENDATIONS AND CHANGED CIRCUMSTANCES

No modifications to Preserve Management Plans or the SEP-HCPs conservation programs occurred during the 2020 - 2021 Fiscal Year via the adaptive management process or changed circumstances.

#### 9. COMPLIANCE-RELATED ISSUES AND ACTIONS

No compliance-related issues or actions involving Participants, Enrolled Properties, or preserves (including conservation easements) occurred during the 2020 - 2021 Fiscal Year and no issues occurred within any of the Government Canyon State Natural Area Karst Fauna Areas, Northern Preserve KFA or Panther Springs Park KFA.

#### 10. OTHER INFORMATION OR RECOMMENDATIONS

No other pertinent information or recommendations, as appropriate occurred during the 2020 - 2021 Fiscal Year.

This report summarizes the development, conservation activities, and biological monitoring surveys conducted by the SEP-HCP for the 2020 - 2021 Fiscal Year reporting period. Please contact either myself at 512-415-9772 or Logan Sparrow at 210-207-8691 if you have any questions or require any additional information.

Sincerely,

Jennifer Blair, CWB

Principal

Blair Wildlife Consulting, LLC

SEP-HCP ESA ITP ANNUAL REPORT FOR FY 2020-2021 PERMIT NUMBER TE-48571B-0 PAGE 5

Cc: Logan Sparrow

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## **ATTACHMENT A**

## **SEP-HCP PARTICIPANTS AND ENROLLED PROPERTIES**

### SEP-HCP ENROLLED PROPERTY IMPACTS BY SPECIES AND TYPE.

										COV	ERED SPECIES	8 & INCIDENTIA	L TAKE AUTH	IORIZATIO	NS						
APPLICATION NO.		ACRES COVERED FOR INCIDENTAL TAKE	DATE ENROLLED	GCW DIRECT IMPACTS ACRES	GCW INDIRECT IMPACTS ACRES	TOTAL GCW ACRES	BCV DIRECT IMPACTS ACRES	BCV INDIRECT IMPACTS ACRES	TOTAL BCV ACRES	KARST ZONE	: KARST ZONE 2	KARST ZONES	KARST ZONE 3	KARST ZONE 4	KARST ZONES 3 & 4 TOTAL	BATRI SO DES VENYIVI	CICURINA MADLA (CICURINA VENII)	CICURINA VESPERA (CICURINA LOFTINI)	RHADINE EXILIS	RHADIN E INFERNALIS	NEOLEPTONETA MICROPS
	FY 17-18 TOTAL	128.50		20.99	46.59	67.58	0.00	0.00	0.00	59.48	56.31	115.79	12.71	0.00	12.71	0.00	0.00	0.00	0.00	0.00	0.00
	FY 18-19 TOTAL	842.11		147.49	181.60	329.09	0.00	0.00	0.00	415.52	266.59	682.11	150.15	0.00	150.15	0.00	0.00	0.00	0.00	0.00	0.00
	FY 19-20 TOTAL	120.25		42.20	46.10	88.30	0.00	0.00	0.00	11.99	75.97	87.96	32.30	0.00	32.30	0.00	0.00	0.00	0.00	0.00	0.00

#### SEP-HCP FY 20-21 (OCT. 1, 2020 - SEPT. 30, 2021) PARTICIPANTS AND ENROLLED PROPERTIES

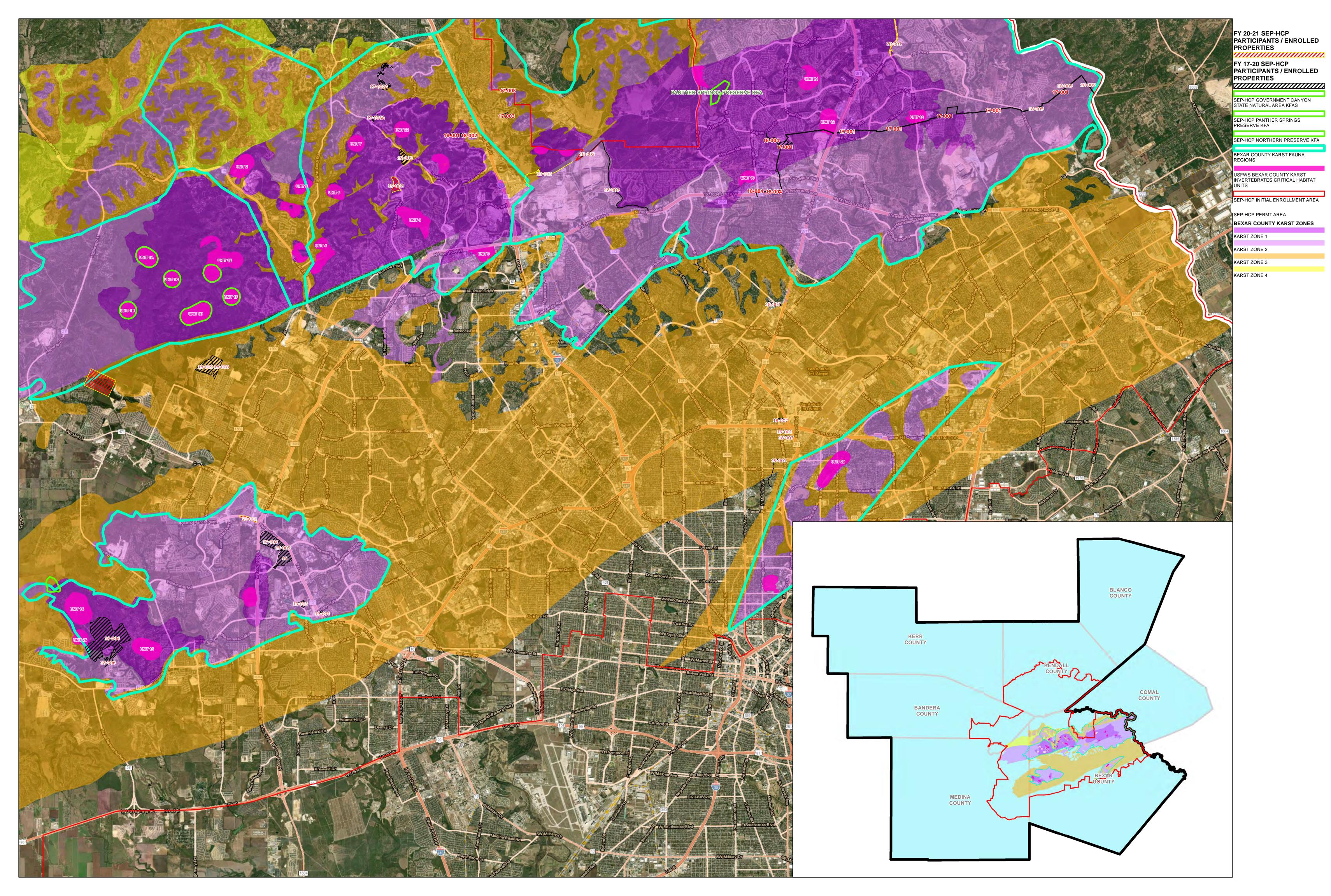
COVERED SPECIES & INCIDENTIAL TAKE AUTHORIZATIONS

APPLICATION NO. 19-002	I APPLICANT NAME Sonoma Verde Tract 2	ACRES COVERED FOR INCIDENTAL TAKE 37.64	DATE ENROLLED 20210504	GCW DIRECT IMPACTS ACRES	GCW INDIRECT IMPACTS ACRES 23.17	TOTAL GCW ACRES 55.83	BCV DIRECT IMPACTS ACRES	BCV INDIRECT IMPACTS ACRES	TOTAL BCV ACRES	KARST ZONE 1 37.64	KARST ZONE 2		KARST ZONE 3	KARST ZONE 4	KARST ZONES 3 & 4 TOTAL	BATRISODES Z VENYIVI	CICURINA MADLA (CICURINA VENII)	CICURINA VESPERA CICURINA LOFTINI)	RHADINE EXILIS	Z RHADINE NIFERNALIS	MEOLEPT ONETA MICROPS
20-001	Bexar County - Bulverde Road	16.48	20201124	0.00	0.00	0.00	0.0	0.0	N	14.19	2.28	16.47	0.00	0.00	0.00	N	N	N	N	N	N
20-002	TXDOT Alamo Ranch Parkway	15.10	20201112	0.00	0.00	0.00	0.0	0.0	N	0.00	15.10	15.10	0.00	0.00	0.00	N	N	N	N	N	N
20-003	COSA PARD Howard Creek Greenway Trail Project Eisenhower Segment	25.87	20201023	0.00	0.00	0.00	0.0	0.0	N	5.62	7.02	12.64	11.44	0.00	11.44	N	N	N	N	N	N
21-001	PSHA-NW315	215.03	20210927	5.70	34.20	39.90	0.0	0.0	N	0.00	6.72	6.72	51.51	0.00	51.51	N	N	N	N	N	N
	FY 20-21 TOTAL	310.12		38.36	57.37	95.73	0.00	0.00	0.00	57.45	31.12	88.57	62.95	0.00	62.95	0.00	0.00	0.00	0.00	0.00	0.00
F	PLAN TO DATE (FY 17-21) TOTAL	1400.98		249.04	331.66	580.70	0.00	0.00	0.00	544.44	429.99	974.43	258.11	0.00	258.11	0.00	0.00	0.00	0.00	0.00	0.00

INCIDENTAL TAKE FOR R. EXILIS AND R. INFERNALIS COVERED THROUGH USFWS SECTION 7 CONSULTATION; ALL GCW IMPACTS MITIGATED SEPARATELY THROUGH SECTION 7 CONSULTATION PROCES

\* \*SAME ENROLLMENT AREA AS 17-001

GIS shapefile location data for each of the SEP-HCP Enrolled Properties has been submitted as part of the annual report.



## **ATTACHMENT B**

## **SEP-HCP PRESERVE SYSTEM SUMMARY**

Summary of the Lands and Habitats Included in the SEP-HCP Preserve System, Including the Total Preserve Acres and the Acres of Suitable Habitat for Each of the Covered Species.

SEP-HCP PRESERVE	COVERED SPECIES	KFR	TOTAL ACRES	ACRES OF SUITABLE HABITAT	CRITICAL HABITAT UNIT	PRESERVE TYPE
Surprise Sink and Bone Pile Cave KFA	Rhadine exilis Rhadine infernalis Cicurina madla Neoleptoneta microps	Government Canyon	144	144	1a	High Quality
Government Canyon Bat Cave KFA	Cicurina vespera Neoleptoneta microps Rhadine exilis Rhadine infernalis	Government Canyon	100	100	1b	High Quality
Lost Pothole KFA	Cicurina madla	Government Canyon	100	100	1c	High Quality
Lithic Ridge, Dancing Rattler, and Hackberry Sink KFA	Cicurina madla Rhadine infernalis Rhadine exilis Batrisodes venyivi	Government Canyon	224	224	1d	High Quality
Tight KFA	Rhadine exilis Rhadine infernalis Batrisodes venyivi Cicurina madla	Government Canyon	105	416	1e	High Quality
10K KFA	Cicurina madla Rhadine infernalis Rhadine exilis Batrisodes venyivi	Government Canyon	100	100	1f	High Quality
Northern Preserve KFA	Cicurina vespera Rhadine infernalis	Culebra Anticline	66.31	66.31	-	Medium Quality
Panther Springs Park Preserve KFA	Cicurina madla Rhadine exilis	Stone Oak	91	91	-	Medium Quality

Conservation Baselines needed for the Covered Karst Invertebrates based on current knowledge of species distribution and establishment of KFAs within the SEP-HCP Permit Area.

Species	Number of KFRs Where Species is	Minimum	n Configuration	n of Preserves	Needed in Ea	ach KFR <sup>1</sup>	Total Nu	umber of Pr Needed	eserves	Curre	nt Knowled	lge of Spe	ecies Distri	bution	<u>C</u> ı	urrent Status	s of Prese	rves in Each	<u>KFR</u>		ation of Prese		aseline and Mi to Reach Con KFR	
Species	Currently Known To Occur	KFR #1	KFR #2	KFR #3	KFR #4	KFR #5	High Quality	Medium Quality	Total	Govmt Canyon KFR	Helotes KFR	UTSA KFR	Stone Oak KFR	Culebra Anticline KFR	Govmt Canyon KFR	Helotes KFR	UTSA KFR	Stone Oak KFR	Culebra Anticline KFR	Govmt Canyon KFR	Helotes KFR	UTSA KFR	Stone Oak KFR	Culebra Anticline KFR
Rhadine exilis	5	1H +2M	1H +2M	1H +2M	1H +2M	1H + 2M	5	10	15	Υ	Υ	Υ	Υ	Υ	6H	0	0	1M <sup>c</sup>	1M <sup>d</sup>	Achieved	1H + 2M	1H + 2M	1H + 1M	1H + 1M
Rhadine infernalis	5	1H + 2M	1H + 2M	1H + 2M	1H + 2M	1H + 2M	5	10	15	Υ	Υ	Υ	Υ	Υ	6H	0	0	0	1H + 1M <sup>c</sup>	Achieved	1H + 2M	1H + 2M	1H + 2M	1M
Batrisodes venyivi	2ª	2H + 1M	1H + 2M	-	-	-	3	3	6	Υ	Υ	Y <sup>a</sup>	N	N	3H + 1M	0	0	0	0	Achieved	1H + 2M	1H + 2M	-	-
Neoleptoneta microps	1	3H + 3M	-	-	-	-	3	3	6	Υ	N	N	N	N	2H	0	0	0	0	1H + 3M	-	-	-	-
Cicurina madla / Cicurina venii	5 <sup>b</sup>	1H + 2M	1H + 2M	1H + 2M	1H + 2M	1H + 2M	5	10	15	Υ	Υ	Υ	Υ	$Y^b$	6H	0	0	1M <sup>c</sup>	0	Achieved	1H + 2M	1H + 2M	1H + 1M	1H + 2M
Cicurina vespera / Cicurina loftini	2 <sup>b</sup>	2H + 1M	1H + 2M	-	-	-	3	3	6	Υ	N	N	N	Υ	1H	0	0	0	1H + 2M <sup>c, d</sup>	1H + 1M	-	-	-	Achieved

<sup>&</sup>lt;sup>1</sup> H = High Quality Preserve; M = Medium Quality Preserve

The paper establishes new taxonomic synonymies and range extensions for listed and non-listed Cicurina species in Bexar County as follows:

- I. Species Synonymies
- Cicurina venii Gertsch, 1992 = Cicurina madla Gertsch, 1992 The Braken Bat Cave meshweaver (Cicurina venii) is no longer a distinct taxonomic entity with specimens now assigned to Madla's Cave meshweaver (Cicurina madla). The former was a single site endemic and Madla's Cave meshweaver would now occupy that location.
- Cicurina loftini Cokendolpher, 2004 = Cicurina vespera Gertsch, 1992 Cicurina loftini (no common name) is no longer a distinct taxonomic entity with specimens now assigned to the Government Canyon Bat Cave meshweaver (Cicurina vespera). The latter was a single site endemic but with revised taxonomy it subsumes all locations previously assigned to C. loftini in northwestern Bexar County.
- II. Range Extensions
- Madla's Cave meshweaver, C. madla: Based on revised taxonomy this species now occurs in the Culebra Anticline Karst Fauna Region.
- Government Canyon Bat Cave meshweaver, C. vespera: Based on revised taxonomy its range is extended to 10-15 caves, formerly assigned to C. loftini in the Culebra Anticline Karst Fauna Region. This species has also now been documented to co-occur with Madla's Cave meshweaver in two caves. It was originally believed that blind Cicurinas did not co-occur.

<sup>&</sup>lt;sup>a</sup> While the Service has records of this species being known from the UTSA KFR, there is not confirmation of the cave location, therefore at this time; the Service only recognizes this species as occurring in 2 KFRs, and does not recognize the UTSA KFR as having the species.

b Updated based on Hedin et al. 2018 and correspondence from the Service to the SEP-HCP Permittees dated 8/29/2018 accepting the findings of Hedin, et al. 2018 for the Bexar County Cicurinas as published: Hedin, M., S. Derkarabetian, J. Blair, and P. Paquin. 2018. Sequence capture phylogenomics of eyeless Cicurina spiders from Texas caves, with emphasis on US federally-endangered species from Bexar County (Araneae, Hahniidae). ZooKeys 769: 49-76. https://doi.org/10.3897/zookeys.769.25814).

on Northern Preserve KFA (Cluebra Anticline KFR) contains both C. vespera and R. infernalis; Panther Springs Park Preserve KFA (Stone Oak KFR) contains both C. madla and R. exilis; the Stevens Ranch Karst Preserve contains C. vespera and R. infernalis

d The SAWS APS Karst Preserve contains C. vespera & R. exilis.

## **ATTACHMENT C**

## **SEP-HCP PRESERVATION CREDITS LEDGER**

### SEP-HCP GCW PRESERVATION CREDIT LEDGER

DATE	DESCRIPTION	REFERENCE #	DEBIT	CREDIT	BALANCE	COMMENTS
		FY 17-18		J.,,	3, 12, 11, 02	
8/10/2018	BCCB GCW Credit Transfer to SEP-HCP on behalf of 18-005-Comal ISD Waterline	18-005	0.00	9.50	9.50	Credits transferred from BCCB to SEP-HCP on behalf of 18-005 on 8/10/2018 Transaction reflected in RIBITS
9/6/2018	BCCB GCW Credit Transfer to SEP-HCP on behalf of 17-003 INTCO Dominion - Hilltop & Howell North	17-003	0.00	32.25	41.75	Credits transferred from BCCB to SEP-HCP on behalf of 17-003 on 9/6/2018 Transaction reflected in RIBITS
9/6/2018	SEP-HCP Application 17-003 INTCO Dominion - Hilltop & Howell North	17-003	32.25	0.00	9.50	Participation Agreement executed on 9/6/2018; Participation Certificate Issued and Enrollment Completed on 9/7/2018
9/17/2018	BCCB GCW Credit Transfer to SEP-HCP on behalf of 18-002 - Cresta Bella Unit 4B	18-002	0.00	13.25	22.75	Credits transferred from BCCB to SEP-HCP on behalf of 18-002 on 9/17/2018 Transaction reflected in RIBITS
9/20/2018	BCCB GCW Credit Transfer to SEP-HCP on behalf of 18-001 - 123 Heuermann Road Tract	18-001	0.00	19.25	42.00	Credits transferred from BCCB to SEP-HCP on behalf of 18-001 on 9/20/2018 Transaction reflected in RIBITS
9/25/2018	SEP-HCP Application 18-001 - 123 Heuermann Road Tract	18-001	19.25	0.00	22.75	Participation Agreement executed on 9/20/2018; Participation Certificate Issued and Enrollment Completed on 9/25/2018
10/2/2018	SEP-HCP Application 18-005 Comal ISD Waterline	18-005	9.50	0.00	13.25	Participation Agreement executed on 10/2/2018; Participation Certificate Issued and Enrollment Completed on 10/2/2018
		FY 18-19				
10/2/2018	SEP-HCP Application 18-002 - Cresta Bella Unit 4B	18-002	13.25	0.00	0.00	Participation Agreement executed on 10/2/2018; Participation Certificate Issued and Enrollment Completed on 10/2/2018
12/6/2018	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 18-008 - Davis Ranch Take 2	18-008	0.00	156.25	156.25	Credits transferred from BCCB to SEP-HCP on behalf of 18-008 on 12/6/2018 Transaction reflected in RIBITS
12/7/2018	SEP-HCP Application 18-008 - Davis Ranch Take 2	18-008	156.25	0.00	0.00	Participation Agreement executed on 12/6/2018; Participation Certificate Issued and Enrollment Completed on 12/7/2018
1/31/2019	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 18-009 - Heartwood Davis Ranch	18-009	0.00	131.50	131.50	Credits transferred from BCCB to SEP-HCP on behalf of 18-009 on 1/31/2019 Transaction reflected in RIBITS
2/6/2019	SEP-HCP Application 18-009 - Heartwood Davis Ranch	18-009	131.50	0.00	0.00	Participation Agreement executed on 2/6/2019; Participation Certificate Issued and Enrollment Completed on 2/7/2019
3/19/2019	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 17-002A - Deer Canyon Phase IA	17-002A	0.00	89.00	89.00	Credits transferred from BCCB to SEP-HCP on behalf of 17-002A on 3/19/2019 Transaction reflected in RIBITS
3/19/2019	SEP-HCP Application 17-002A - Deer Canyon Phase IA	17-002A	89.00	0.00	0.00	Participation Agreement executed on 3/26/2019; Participation Certificate Issued and Enrollment Completed on 3/26/2019
		FY 19-20				
1/29/2020	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 19-005 SA BigHaus	19-005	0.00	81.00	81.00	Credits transferred from BCCB to SEP-HCP on behalf of 19-005 on 1/29/2020 Transaction reflected in RIBITS
1/29/2020	SEP-HCP Application 19-005 - SA BigHaus	19-005	81.00	0.00	0.00	Participation Agreement executed on 1/30/2020; Participation Certificate Issued and Enrollment Completed on 1/30/2020
3/5/2020	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 17-006A - 20.53 Acre Babcock Road, LLC Phase A	17-006A	0.00	26.50	26.50	Credits transferred from BCCB to SEP-HCP on behalf of 17-006A on 3/5/2020 Transaction reflected in RIBITS
9/25/2020	SEP-HCP Application 17-006A - 20.53 Acre Babcock Road, LLC Phase A	17-006A	26.50	0.00	0.00	Participation Agreement executed on 9/22/2020; Participation Certificate Issued and Enrollment Completed on 9/25/2020

### SEP-HCP GCW PRESERVATION CREDIT LEDGER

DATE	DESCRIPTION	REFERENCE #	DEBIT	CREDIT	BALANCE	COMMENTS
3/22/2021	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 19-002- Sonoma Verde SPE, L.P.	<b>FY 20-21</b> 19-002	0.00	77.00	77.00	Credits transferred from BCCB to SEP-HCP on behalf of 19-002 on 3/22/2021 Transaction reflected in RIBITS
3/22/2021	SEP-HCP Application 19-002- Sonoma Verde SPE, L.P.	19-002	77.00	0.00	0.00	Participation Agreement executed on 4/22/2021; Participation Certificate Issued and Enrollment Completed on 5/4/2021
9/16/2021	BCCB GCW Credit Transfer to SEP-HCP on behalf of SEP-HCP Application 21-001 PHSA-NW315, LLC	21-001	0.00	28.50	28.50	Credits transferred from BCCB to SEP-HCP on behalf of 21-001 on 9/16/2021 Transaction reflected in RIBITS
9/16/2021	SEP-HCP Application 21-001 PHSA-NW315, LLC	21-001	28.50	0.00	0.00	Participation Agreement executed on 9/27/2021; Participation Certificate Issued and Enrollment Completed on 9/27/2021

SEP-HCP KARST ZONE 1 & 2 ENROLLMENT ACRES NORTHERN PRESERVE LEDGER

							TOTAL KARST ZONE 1	TOTAL KARST ZONE 3		DEBIT	CREDIT	BALANCE	
		REFERENCE					& 2 ENROLLMENT	& 4 ENROLLMENT	ENROLLMENT	(ENROLLMENT	(ENROLLMENT	(ENROLLMENT	
DATE	DESCRIPTION	#	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES RESERVED	ACRES)	ACRES)	ACRES)	COMMENTS
						FY	17-18						
6/22/2018	Northern Preserve KFA Establishment	-	-	-	-	-	-	-	-	0.00	678.52	678.52	USFWS approval of KFA and award of 678.52 karst enrollment acres received on June 30, 2017
6/22/2018	Stevens Ranch - Karst Enrollment Acres - RESERVED	-	-	-	-	-	-	-	494.52	0.00	0.00	184.00	Per Northern Preserve Donation Agreement executed 4/24/2018
8/16/2018	SEP-HCP Application 17-001 - Vista Ridge Pipeline	17-001	41.73	49.53	0.00	0.00	91.26	0.00	494.52	91.26	0.00	92.74	Participation Agreement Recorded 8/16/2018; Participation Certificate Issued & Enrollment completed 8/17/2018
9/6/2018	SEP-HCP Application 17-003 INTCO Dominion - Hilltop & Howell North	17-003	0.00	0.00	12.71	0.00	0.00	12.71	494.52	0.00	0.00	92.74	Participation Agreement Recorded 9/17/2018; Participation Certificate Issued & Enrollment completed 9/17/2018
9/17/2018	SEP-HCP Application 18-004 SAWS CWIP North Segement	18-004	6.92	6.78	0.00	0.00	13.70	0.00	494.52	13.70	0.00	79.04	Participation Agreement Recorded 9/17/2018; Participation Certificate Issued & Enrollment completed 9/17/2018
						FY	18-19						
10/2/2018	SEP-HCP Application 18-005 Comal ISD Waterline	18-005	0.00	0.00	0.00	0.00	0.00	0.00	494.52	0.00	0.00	79.04	Enrollment Area is same as 17-001; karst participation not required.
12/21/2018	SEP-HCP Application 18-004 SAWS CWIP North Segement - additional area	18-004B	0.05	0.306	0.306	0.00	0.356	0.306	494.52	0.356	0.00	78.68	Participation Agreement Recorded 12/21/2018; Participation Certificate Issued & Enrollment completed 12/21/2018
3/26/2019	SEP-HCP Application 17-002A - Deer Canyon Phase IA	17-002A	0.00	32.84	4.70	0.00	32.84	4.70	494.52	32.84	0.00	45.84	Participation Agreement Recorded 3/26/2019; Participation Certificate Issued & Enrollment completed 3/26/2019
9/13/2019	SEP-HCP Application 18-006 - Stevens Ranch 494.52 Acres	18-006	410.71	83.81	0.00	0.00	494.52	0.00	0.00	494.52	494.52	45.84	Per Northern Preserve Donation Agreement executed 4/24/2018 Participation Agreement Recorded 9/12/2019; Participation Certificate Issued & Enrollment completed 9/13/2019
						FY	19-20						
9/5/2020	SEP-HCP Application 17-006A - 20.53 Acre Babcock Road, LLC Phase A	17-006A	6.70	0.00	0.00	0.00	6.70	0.00	0.00	6.70	0.00	39.14	Participation Agreement Recorded 9/25/2020; Participation Certificate Issued & Enrollment completed 9/25/2020
						FY	20-21						
11/12/2020	SEP-HCP Application 20-002 - TxDOT Alamo Ranch Parkway	20-002	0.00	15.10	0.00	0.00	15.10	0.00	0.00	15.10	0.00	24.04	MOA Executed & Enrollment completed 11/12/2020
11/24/2020	SEP-HCP Application 20-001 - TxDOT/Bexar County - Bulverde Road	20-001	14.19	2.28	0.00	0.00	16.47	0.00	0.00	16.47	0.00	7.57	MOA Executed & Enrollment completed 11/24/2020
9/27/2021	SEP-HCP Application 21-001 - PSHA-NW315, LLC	21-001	0.00	6.72	51.51	0.00	6.72	51.51	0.00	6.72	0.00	0.85	Participation Agreement Recorded 9/27/2021; Participation Certificate Issued & Enrollment completed 9/27/2021

#### SEP-HCP KARST ZONE 1 & 2 ENROLLMENT ACRES PANTHER SPRINGS PRESERVE LEDGER

			KARST ZONE 1	KARST ZONE 2	KARST ZONE	3 KARST ZONE 4	TOTAL KARST ZONE	1 TOTAL KARST ZONE 3	KARST	DEBIT	CREDIT	BALANCE	
				ENROLLMENT		ENROLLMENT	& 2 ENROLLMENT	& 4 ENROLLMENT	ENROLLMENT	(ENROLLMENT	(ENROLLMENT	(ENROLLMENT	
DATE	DESCRIPTION	REFERENCE #	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES RESERVED	ACRES)	ACRES)	ACRES)	COMMENTS
						FY 17	-18						
9/19/2018	Panther Springs Preserve KFA Establishment	-	-	-	-	-	-	-	-	0.00	471.00	471.00	USFWS approval of KFA and award of 471 karst enrollment acres received on September 19, 2018
9/19/2018	Panther Springs Preserve KFA - Karst Enrollment Acres - RESERVED FOR COSA PARD PROJECTS	-	-	-	-	-	-	-	90.00	0.00	0.00	381.00	Per Panther Springs Approval by Parks Board 7/23/2018
9/25/2018	SEP-HCP Application 18-001 123 Heuermann Road Tract	18-001	6.17	0.00	0.00	0.00	6.17	0.00	90.00	6.17	0.00	374.83	Participation Agreement Recorded 9/24/2018; Participation Certificate Issued & Enrollment completed 9/25/2018
10/2/2018	SEP-HCP Application 18-002 - Cresta Bella Unit 4B	18-002	4.66	0.00	0.00	0.00	4.66	0.00	90.00	4.66	0.00	370.17	Participation Agreement Recorded 10/2/2018; Participation Certificate Issued & Enrollment completed 10/2/2018
						FY 18	I-19						
12/6/2018	SEP-HCP Application 18-003 - COSA PARD Salado Creek Greenway Trail Project	18-003	4.81	6.93	0.00	0.00	11.74	0.00	78.26	11.74	11.74	370.17	Participation Agreement Recorded 12/5/2018; Participation Certificate Issued & Enrollment completed 12/6/2018
12/7/2018	SEP-HCP Application 18-008 Pulte Davis Ranch	18-008	0.00	0.00	75.65	0.00	0.00	75.65	78.26	0.00	0.00	370.17	Participation Agreement Recorded 12/6/2018; Participation Certificate Issued & Enrollment completed 12/7/2018
12/17/2018	SEP-HCP Application 17-004 Wells Fargo Parcel 1	17-004	0.00	111.90	0.00	0.00	111.90	0.00	78.26	111.90	0.00	258.27	Participation Agreement Recorded 12/17/2018; Participation Certificate Issued & Enrollment completed 12/17/2018
12/17/2018	SEP-HCP Application 17-005 Wells Fargo Parcel 2	17-005	0.00	10.00	0.00	0.00	10.00	0.00	78.26	10.00	0.00	248.27	Participation Agreement Recorded 12/17/2018; Participation Certificate Issued & Enrollment completed 12/17/2018
12/21/2018	SEP-HCP Application 18-007 SAWS - CWIP - Bitters, Maltsberger, Pipeline Segment 5-3, and PRV's 2-3	18-007	0.00	0.00	7.60	0.00	0.00	7.60	78.26	0.00	0.00	248.27	Participation Agreement Recorded 12/21/2018; Participation Certificate Issued & Enrollment completed 12/21/2018
2/7/2019	SEP-HCP Application 18-009 Heartwood Davis Ranch	18-009	0.00	0.00	58.51	0.00	0.00	58.51	78.26	0.00	0.00	248.27	Participation Agreement Recorded 2/6/2019; Participation Certificate Issued & Enrollment completed 2/7/2019
4/23/2019	SEP-HCP Application19-001 SAWS Segment 5-4 & Halm Blvd	19-001	0.00	0.00	3.70	0.00	0.00	3.70	78.26	0.00	0.00	248.27	Participation Agreement Recorded 4/23/2019; Participation Certificate Issued & Enrollment completed 4/23/2019
6/21/2019	SEP-HCP Application 19-003 Vantage at Westover Hills	19-003	0.00	16.11	0.00	0.00	16.11	0.00	78.26	16.11	0.00	232.16	Participation Agreement Recorded 6/19/2019; Participation Certificate Issued & Enrollment completed 6/21/2019
7/2/2019	SEP-HCP Application 19-004 QT Store No 4062	19-004	0.00	5.00	0.00	0.00	5.00	0.00	78.26	5.00	0.00	227.16	Participation Agreement Recorded 7/2/2019; Participation Certificate Issued & Enrollment completed 7/2/2019
						FY 19	1-20						
1/30/2020	SEP-HCP Application 19-005 SA BigHaus	19-005	5.29	0.00	32.30	0.00	5.29	32.30	78.26	5.29	0.00	221.87	Participation Agreement Recorded 1/30/2020; Participation Certificate Issued & Enrollment completed 1/30/2020
9/28/2020	SEP-HCP Application 20-004 SRP LTD	20-004	0.00	75.96	0.00	0.00	75.96	0.00	78.26	75.96	0.00	145.91	Participation Agreement Recorded 9/28/2020; Participation Certificate Issued & Enrollment completed 9/28/2020
						FY 20	1-21						
10/23/2020	SEP-HCP Application 20-003 COSA PARD Howard Creek Greenway Trail Project - Eisenhower Segment	20-003	5.62	7.02	11.44	0.00	12.64	11.44	65.62	12.64	12.64	145.91	Participation Agreement Recorded 10/21/2020; Participation Certificate Issued & Enrollment completed 10/23/2020
5/24/2021	SEP-HCP Application 19-002 Sonoma Verde Tract 2	19-002	37.64	0.00	0.00	0.00	37.64	0.00	65.62	37.64	0.00	108.27	Participation Agreement Recorded 4/22/2021; Participation Certificate Issued & Enrollment completed 5/4/2021

## **ATTACHMENT D**

**SEP-HCP FINANCIAL STATUS** 

### SEP-HCP Account Balance - As of 5/31/22

		SEP-HCP	General Progra	am Administrati	on			
To the last of			Fiscal Year					
Account Number	Account Name	2017	2018	2019	2020	2021	2022	Cumulative Fund Balance**
4406300	Application Fee - \$2.5K	7,500	22,500	17,518	12,500	4,982	12,500	77,500
4406301	Plan Admin Fee - 10% Tot Mitig Fees	9,126	34,698	232,846	56,516	55,821	937,138	1,326,145
4406305	Karst Habitat - \$1K per acre	68,445	36,165	252,284	103,117	106,055	116,525	682,592
4502280	Contributions from other Agencies	-	200	7		-	7,625,250	7,625,250
4901301	Interest on Pooled Investments-Operating	869	3,959	22,284	16,953	2,694	7,572	54,331
4902700	Net Increase in Fair Value of Investment*	(13)	(112)	1,379	66	(1,289)	51	82
5201040	Fees to Professional Contractors***		(52,358)	(107,682)	(113,016)	(124,356)	(29,819)	(427,231)
6101100	Interfund Transfers In	141,750	141,750	141,750	141,750	-	-	567,000
<b>Grand Total</b>	And the second second	227,676	186,602	560,379	217,886	43,907	8,669,218	9,905,669

		Endowr	ment Fund - Gov	ernment Canyo	n			
Account	2000	100	Fiscal Year			100	U.S.	Cumulative Fund
Number	Account Name	2017	2018	2019	2020	2021	2022	Balance**
4406305	Karst Habitat - \$1K per acre		-	30,103	6,389	12,519	8,960	57,971
4502280	Contributions from other Agencies						847,250	847,250
4901301	Interest on Pooled Investments-Operating	- 2	784	2,518	2,371	396	862	6,932
4902700	Net Increase in Fair Value of Investment*		(20)	149	36	(193)	8	(20)
6101100	Interfund Transfers In	33,250	33,250	33,250	33,250		2	133,000
<b>Grand Total</b>		33,250	34,014	66,020	42,046	12,723	857,080	1,045,132

		Endow	ment Fund - No	rthern Preserve				
Account			Fiscal Year	2010	2000	2004		Cumulative Fund
Number	Account Name	2017	2018	2019	2020	2021	2022	Balance**
4406305	Karst Habitat - \$1K per acre	22,815	3,425	8,210	89	9,641		44,180
4502280	Contributions from other agencies	*	165,750					165,750
4901301	Interest on Pooled Investments-Operating		2,263	4,537	3,305	482	389	10,977
4902700	Net Increase in Fair Value of Investment*	80	(59)	245	(16)	(237)	9	(59)
<b>Grand Total</b>	Tarana and Carana and Sana	22,815	171,379	12,991	3,378	9,887	398	220,848

		Endowr	nent Fund - Panthe	er Springs Pres	erve			
Account			Fiscal Year			740		Cumulative Fund
Number	Account Name	2017	2018	2019	2020	2021	2022	Balance**
4406305	Karst Habitat - \$1K per acre		8,630	35,943	25,765	8,800	26,895	106,033
4502280	Contributions from other agencies	-	110		-		712,500	712,500
4901301	Interest on Pooled Investments-Operating	(4)	102	570	725	149	606	2,152
4902700	Net Increase in Fair Value of Investment*		(3)	40	14	(57)	4	(3)
<b>Grand Total</b>		160	8,729	36,552	26,504	8,892	740,004	820,682
			Total of All Fun	d Balances				11,992,330.75

<sup>\*</sup>Denotes loss/depreciation of investments in various markets

	Revenues	12,345,170
	Interest	74,392
	Expenses	(427,231)
Total of All Fund Balances		11,992,331

<sup>&</sup>quot;Actual cash in and cash out and does not include value of environmental credits

<sup>\*\*\*</sup> Bexar County Contribution is equal to City contribution