

2022 EFFECTIVENESS REPORT OF THE EDWARDS AQUIFER AUTHORITY

Submitted by:
SOUTH CENTRAL TEXAS WATER ADVISORY COMMITTEE
SEPTEMBER 2022

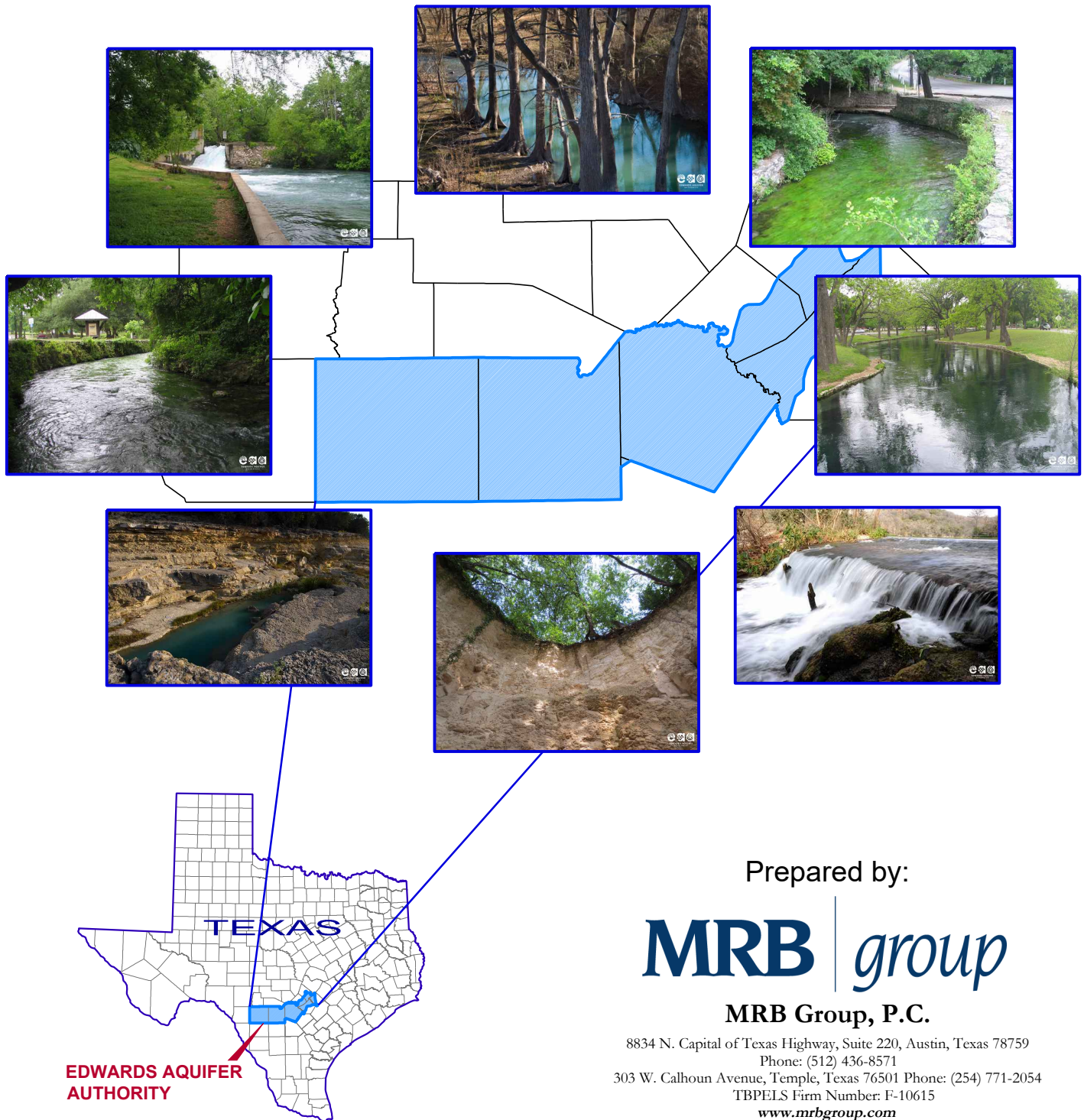


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LIST OF ABBREVIATIONS

1. EAA- EDWARDS AQUIFER AUTHORITY
2. SCTWAC- SOUTH CENTRAL WATER ADVISORY COMMITTEE
3. EAHCP- EDWARDS AQUIFER HABITAT CONSERVATION PLAN
4. ITP- INCIDENTAL TAKE PERMIT
5. TCEQ- TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
6. TWDB- TEXAS WATER DEVELOPMENT BOARD
7. USFWS- UNITED STATES FISH AND WILDLIFE SERVICE
8. ASR- AQUIFER STORAGE AND RECOVERY
9. EARZ- EDWARDS AQUIFER RECHARGE ZONE

ATTACHMENT

EAA LIST OF ACCOMPLISHMENTS 2020-2022

EXECUTIVE SUMMARY

The Texas Legislature established the South Central Texas Water Advisory Committee (SCTWAC) as part of the enabling legislation for the Edwards Aquifer Authority (EAA). The legislation defined the role of the SCTWAC to represent downstream interests in the Guadalupe, San Antonio, and Nueces River basins. The SCTWAC is charged with developing an Effectiveness Report evaluating the actions of the EAA on downstream interests. The report is required every even-numbered year and submitted to the Texas Commission on Environmental Quality (TCEQ).

The Effectiveness Report is required to assess the following:

- The effectiveness of the EAA over the past two years.
- The effect of the EAA management decisions on downstream interests.

Specific points that are required in this evaluation include:

- Whether the EAA has functioned as an effective organization;
- Whether the EAA has provided leadership in the protection of springflows and water quality;
- Whether the EAA has played a significant role in regional planning activities;
- Whether the EAA has provided for effective protection of water quality in the aquifer and in contributing streams;
- Whether the EAA has complied with statutory mandates and deadlines provided in the EAA act;
- Whether the EAA has achieved its water conservation goals; and
- Whether the EAA has provided effective protection of aquatic and wildlife habitat, endangered and threatened species, in-stream uses, and bays and estuaries that depend on the aquifer.

The SCTWAC establishes effectiveness measures for each report that are used to evaluate if the EAA has met its legislative mandates and assess the EAA actions on downstream interests. The Effectiveness Reports have reflected the changing role of the EAA from being primarily a regulatory agency implementing the permitting process that met legislative mandates and protect the springflows in Comal and San Marcos Springs. This role evolved and led to the development of the Edwards Aquifer Habitat Conservation Plan (EAHCP), which led to the issuance of an Incidental Take Permit (ITP) issued by the U.S. Fish and Wildlife Service. The implementation of

the EAHCP made the EAA a major player in water management strategies that directly affected downstream interests.

It must be noted that in order to meet the legislative mandates, the EAA must look toward both short and long-term strategies and actions. Because of the complexity of the issues, there are no short-term fixes but instead taking steps that protect the future.

The Effectiveness Measures that have been developed focus on the following areas:

- Regulatory
- Financial
- Planning, Research, and Partnership Development
- Water Quality
- Water Conservation and Reuse
- Education
- Continued implementation of the EAHCP and compliance with the ITP.

The Effective Measures established in the 2020 report are reflected in Table ES-1 and reflect if the EAA has Completed, is In Progress, or Not Completed the Effectiveness Measures.

Table ES-1: Status of Meeting the 2022 Effectiveness Measures

Effectiveness Measure	In Progress/ Completed	Not Complete
Regulatory		
Clarify that the brackish zone of the Edwards Aquifer can be used for ASR development with no penalty for storing and withdrawing the water	✓	
EAA establish a policy supporting the use of the brackish zone and develop rules to regulate the use of the brackish zone	✓	
Educate the legislature on the relationship of the brackish zone and its potential for use in ASR projects and for potential blending or treatment	✓	
Enter into formal working relationships with other groundwater districts to assure that permitting is consistent and transparent	✓	
Financing		
EAA should begin a process with permit holders to explain the need for increased fees and how the revenue is to be used	✓	
EAA should begin planning for long term financing of acquisition and maintenance of conservation easements	✓	
Development of a plan to assure long term financing for the Edwards Aquifer Conservancy	✓	
Planning, Research, and Partnership Development		

Continue research into the interrelationship between the Edwards and Trinity Aquifers and their impact on stream flow in the contributing and recharge zones	✓	
Continue support of riparian restoration	✓	
Continue to work with Region L Water Plan Group	✓	
Work with conservation groups to identify strategic properties for conservation easement acquisition	✓	
Partner with conservation groups, foundations, non-profits, state and federal agencies to leverage EAA resources	✓	
Continue to facilitate meetings with groups that are active in planning within the region	✓	
Water Quality		
Place water quality best management practices on the EAA website	✓	
Identify priority areas for water quality protection in the contributing and recharge zones that would impact water quality or would impact water quality in Comal and San Marcos springs	✓	
Continue to provide staff support for the City of San Antonio for water quality field work	✓	
Continue cooperative work with other partners to share water quality data and information	✓	
Continue well registration and plugging	✓	
Continue bi-annual collection of hazardous waste and providing financial assistance for obtaining secondary containment for regulated above ground storage tanks	✓	
Water Conservation and Reuse		
Funding for leak detection for smaller utilities		✓
Provide leadership in promoting water reuse among smaller utilities	✓	
Develop partnerships with other funding sources to leverage EAA resources	✓	
Act as a coordinator between local utilities to assist in implementing conservation and reuse objectives	✓	
Education		
Complete the Education Outreach Center and consider outreach to local public and private schools	✓	
Integrate the educational programs of the EAC and EAA so that public and private donations can help support these efforts	✓	
Continue with the newsletters, social media, and You Tube presentation and educational presentations	✓	
Continued Implementation of the EAHCP and Incidental Take Permit Compliance		
Continue to implement the EAHCP and ITP	✓	

This tables illustrates that the EAA has continued to address the concerns of downstream interests by successfully implementing actions detailed in the effectiveness measures.

Effectiveness Measures for the 2024 Report are summarized as follows:

Regulatory

Effectiveness Measure:

- **Begin educating legislators that the brackish zone of the Edwards Aquifer can be used for ASR development with no penalty for storing and withdrawing the stored water.**

Effectiveness Measure:

- **Consider developing rules that regulate the process of developing ASR projects in the saline portion of the Edwards Aquifer to assure consistency in approach and regulation.**

Effectiveness Measure:

- **Develop formal working agreements with other groundwater conservation districts to assure that the permitting process for each District is consistent and transparent in protecting the Edwards Aquifer and springflows.**

Effectiveness Measure:

- **Continue effort to renew recharge dam permits.**

Effectiveness Measure:

- **Continue implementation of the Abandoned Well Program.**

Financing

Effectiveness Measure:

- **Continue researching the potential for protecting funds allocated to implementation of the EAHCP and ITP using an alternative means for reducing the current reserve requirements. This would be accomplished using a private insurance strategy to cover risk associated with the current reserve fund requirements. These strategies need to include protections the EAA would need in case of a default by the private insurer.**

Effectiveness Measure:

- **Since the implementation of the conservation measures includes the payment to agricultural permit holders not to plant crops, consider discussions with USDA to have the agency provide assistance through guaranteed or direct insurance coverage that would mitigate the risk for a private insurer and**

potentially reduce the premium required from the EAA.

Effectiveness Measure:

- **If the EAA were to implement the use of an insurance program to reduce reserves it must be clear that this reduction would only affect future payments to the reserve funds not for EAA operations.**

Effectiveness Measure:

- **The EAA should continue its support of the Edwards Aquifer Conservancy with the goal of having the Conservancy be self-sufficient and be able to support the implementation of the EAA Next Generation concepts.**

Planning, Research, and Partnership Development

Effectiveness Measure:

- **Continue research into methods of improving water quality and recharge through improvements to soil health and riparian restoration.**

Effectiveness Measure:

- **Continue research on the interrelationship between the Edwards and Trinity aquifers.**

Effectiveness Measure:

- **Continue developing partnerships with outside funding sources to leverage EAA resources to meet both short-term and long-term objectives.**

Effectiveness Measure:

- **Continue to work with outside organizations to identify potential properties for conservation easement acquisition.**

Effectiveness Measure:

- **Continue to work with Edwards Aquifer Conservancy to develop a long term financing option for continued conservation easement acquisition and maintenance. The goal for this effort is to have funding in place as the City of San Antonio resources are exhausted.**

Water Quality

Effectiveness Measure:

- **Continue collecting water quality data from sampling public and private wells as well as from surface water sources.**

Effectiveness Measure:

- **Identify priority areas for water quality protection in the contributing and recharge zones that would impact water quality in the aquifer or in Comal and San Marcos Springs.**

Effectiveness Measure:

- **Consider expanding the water quality analysis to take into account the increased urbanization of the I-35 corridor.**

Effectiveness Measure:

- **Continue providing staff support to the City of San Antonio for water quality field work in conservation easements.**

Effectiveness Measure:

- **Implement a hazardous waste disposal program to assist agricultural interests in disposing of this waste in a responsible manner.**

Effectiveness Measure:

- **Continue well registration and plugging program.**

Water Conservation and Reuse

Effectiveness Measure:

- **EAA should consider developing a grant program to assist smaller utilities efforts to reduce water loss. The program should actively promote the program to smaller utilities and develop a realistic timeline for implementation of the recommendations.**

Effectiveness Measure:

- **EAA should consider partnering with smaller utilities to determine what level of reuse could be accomplished under existing TCEQ wastewater permit parameters.**

Effectiveness Measure:

- **As a conservation measure, consider identifying areas that could benefit from ASR development within the EAA jurisdiction.**

Effectiveness Measure:

- **Continue to work with funding agencies to leverage local resources to promote water conservation.**

Effectiveness Measure:

- **The EAA adopted a Groundwater Conservation Plan in 2014. The plan established Best Management Practices that all permit holders were supposed to implement and report annually. EAA should make all of the annual reports available on their website so that they can be accessed.**

Education

Effectiveness Measure:

- **Develop metrics that can assess the success of the Education and Outreach Center.**

Effectiveness Measure:

- **Continue the newsletters, social media, podcasts, and You Tube presentations and programs. These programs are useful for promoting the goals of the EAA and continue to provide a variety of public outreach and education.**
- **Continued Implementation of the Edwards Aquifer Habitat Conservation Plan and Incidental Take Permit**

Effectiveness Measure:

- **Continue to move forward with the preparations to obtain a renewal of the Incidental Take Permit.**

Effectiveness Measure:

- **Continue the public outreach and education programs that provide updated information on the program and the progress being made to renew the Incidental Take Permit.**

Effectiveness Measure:

- **Continue to implement the EAHCP and use the adaptive management process to address issues as they arise.**

I. INTRODUCTION

An act of the Texas Legislature established the Edwards Aquifer Authority (EAA) in 1993. This action resulted from a federal lawsuit brought against the State to ensure the protection of endangered species that only exist in Comal and San Marcos Springs. These springs are the largest natural springs in Texas. The legislation took into consideration both municipal and agricultural interests that use the Edwards Aquifer and recognized the importance of the Edwards Aquifer and its impact on:

- Springflows that are needed for the endangered species to survive;
- These Springflows provide the base flow for several rivers, most notably the Guadalupe River;
- Replenishment of both major and minor aquifers in the Region;
- The springs receive water from groundwater movement in the Nueces, San Antonio, and Guadalupe River Basins.

The EAA enabling legislation also created the South Central Texas Water Advisory Committee (SCTWAC) to represent downstream interests in the Guadalupe, San Antonio, and Nueces River Basins. The SCTWAC is responsible for developing an Effectiveness Report which reviews EAA actions over the previous two years and the impact of those decisions on Comal and San Marcos springflows as well the impacts on downstream interests. Once the SCTWAC adopts the report, the report is submitted to the Texas Commission on Environmental Quality (TCEQ) for review.

The EAA covers over 8,000 square miles across eight counties, including Uvalde, Medina, and Bexar counties, and portions of Atascosa, Caldwell, Guadalupe, Comal, and Hays counties and have faced significant legal, fiscal, and administrative challenges in fulfilling legislative mandates. Nevertheless, the EAA has developed a permitting system that has survived multiple legal challenges and developed a functioning water market for permitted water within its jurisdiction and scientific understanding of the aquifer and its impact on protected species and springflows.

In addressing the contentious political and policy issues surrounding water resource management over the Edwards Aquifer, the Texas Legislature has given the EAA the tools to implement management strategies that meet the legislative directives successfully. The EAA has developed some of the most successful water management strategies in Texas. As an active participant in the Texas Water Development Board (TWDB) Regional Water Planning process, the EAA has

assumed a leadership role in directing research dealing with the Edwards Aquifer, Comal, and San Marcos Springs and the protection of the endangered species that live within the springs.

The SCTWAC has adopted the use of Effectiveness Measures in each biennial report. These Effectiveness Measures include making suggestions on policy matters that could affect springflows or could have an impact on downstream interests. These Effectiveness Measures have evolved to reflect the changing role of the EAA as a regulatory agency to being the driving force behind the implementation of the Edwards Aquifer Habitat Conservation Plan and the subsequent issuance of the Incidental Take Permit from the U.S. Fish and Wildlife Service.

II. SOUTH CENTRAL TEXAS WATER ADVISORY COMMITTEE

2.1 BACKGROUND

The SCTWAC was formed to recognize the hydrologic interdependence of the Edwards Aquifer and the Guadalupe, San Antonio, and Nueces River basins. This interdependence impacts surface and groundwater rights within the river basins and the recharge of Edwards Aquifer and minor aquifers in the Region.

The SCTWAC recognizes the need for an effective EAA to implement water resource strategies that protect EAA permit holders, springflows, and downstream water interests. This report reflects the perspective of downstream interests within the three river basins and comments on specific actions and policies adopted by the EAA. Additionally, this report has suggested policies that would be mutually beneficial for both the EAA and downstream interests. The SCTWAC has commented on and, in some instances, been critical of specific actions and/or policies of the EAA. It should be noted that the SCTWAC fully supports the EAA and its mission of protecting the Edwards Aquifer, springflows, and those dependent on it for water.

2.2 MEMBERSHIP AND RESPONSIBILITIES OF THE SOUTH CENTRAL TEXAS WATER ADVISORY COMMITTEE

The SCTWAC has 20 appointed members from seventeen counties within the Region (see Figure II-1), representing affected downstream interests. These members represent the affected counties and cities, except for Atascosa County, which may not have a representative on the SCTWAC when the County has a representative on the EAA Board of Directors. In addition, ten members

represent interests in the Guadalupe River basin, five represent interests in the San Antonio River basin, and five represent interests in the Nueces River basin. Table II-1 lists the membership.

Table II-1 2022 South Central Texas Water Advisory Committee Membership

Representing	Member
City of Victoria	Gary Middleton- Chairman/EAA Representative
Atascosa County	Robert L. Ulrich
Caldwell County	Tom Goynes
Calhoun County	Colton Hahn
Comal County	Carl Englerth
DeWitt County	Bill Braden
Goliad County	Ray Bednorz
Gonzales County	Craig Hines
Guadalupe County	Greg Seidenberger
Hays County	Honorable Ruben Bercerra
Karnes County	Punch Humphries
Medina County	Fred Yanta
Nueces County	Joe McComb
Refugio County	Larry Aduddell
San Patricio County	Brian Williams
Uvalde County	Vic Hildebran
Victoria County	Tim Andruss
Wilson County	Steve Snider
City of Corpus Christi	Steve Klepper
City of San Antonio	Gregory Hudspeth

The SCTWAC designates one of its members to serve on the EAA Board of Directors. The appointee is granted full participation rights in EAA deliberations but is not allowed to vote on issues before the Board of Directors. The SCTWAC reports to the TCEQ and the EAA Board of Directors. The SCTWAC, by resolution, may request that the EAA Board of Directors reconsider any EAA Board action that the SCTWAC members consider prejudicial to downstream water interests. The EAA Board of Directors reviews the request, and if the result does not satisfy the SCTWAC, a request can be made for the TCEQ to review the action and make a recommendation to the EAA Board of Directors. If the EAA Board of Directors determines that the EAA action is contrary to that of the TCEQ recommendations the EAA Board of Directors is required to reverse itself.

2.3 STATUTORY REQUIREMENTS FOR THE EDWARDS AQUIFER AUTHORITY EFFECTIVENESS REPORT

The presiding officer of the SCTWAC is mandated to submit an Effectiveness Report on the EAA to the TCEQ and Board of Directors by October 31 of each even-numbered year. The first report was issued in 1998, and reports have been filed every two years since that time.

The EAA enabling legislation requires that the report assess:

1. The effectiveness of the EAA
2. The effect on downstream water rights by the EAA management of the aquifer

Specific points for consideration in the evaluation include determining if the EAA:

1. Has functioned as an effective organization;
2. Has played a significant role in regional planning activities;
3. Complied with statutory mandates and deadlines provided in the EAA act;
4. Provided for effective protection of water quality in the aquifer and contributing systems;
5. Achieved its water conservation goals;
6. Provided effective protection of aquatic and wildlife habitat, endangered and threatened species, in-stream uses, and bays and estuaries that depend on the aquifer for surface water flows.

The SCTWAC has relied upon specific Effectiveness Measures developed in each of the reports to assess the effectiveness of the EAA. The role and responsibilities of the EAA have evolved due to legislative actions, judicial rulings, and the development and implementation of the Habitat Conservation Plan.

In general, the Effectiveness Measures are grouped into the following areas:

- Regulatory
- Research
- Financial
- Planning
- Administrative
- Education
- Implementation of the Edwards Aquifer Habitat Conservation Plan and compliance

with the Incidental Take Permit

It is important to note that the Effectiveness Measures reflect the issues and priorities of downstream interests. The SCTWAC has always maintained that the actions of the EAA should meet legislative mandates which are not mutually exclusive from downstream interests.

2.3.1 RELATIONSHIP OF THE EDWARDS AQUIFER TO THE BOUNDARIES OF THE EDWARDS AQUIFER AUTHORITY

The Edwards Aquifer is the primary water source for much of South Central Texas. The western edge of the aquifer begins in Kinney County and runs in a generally northeastern direction into Bell County. While the aquifer and its contributing zone cover multiple counties, the EAA jurisdiction is based on county boundaries and areas that affect Comal and San Marcos Springs. Portions of the transition, recharge, and artesian zones of the Edwards Aquifer lie outside the jurisdiction of the EAA. The EAA boundaries encompass agricultural and municipal users' most significant usage within the aquifer. Water use in the western counties of Uvalde and Medina is primarily agricultural. In contrast, the counties west of the Knippa Gap, Bexar, Comal, and Hays counties are primarily municipal and industrial users. Figure II-2 illustrates the relationship between the river basins and the different zones affecting the Edwards Aquifer.

2.3.2 RELATIONSHIP OF THE EDWARDS AQUIFER AUTHORITY TO THE GUADALUPE, NUECES, AND SAN ANTONIO RIVER BASINS

The Edwards Aquifer crosses the upper reaches of the Guadalupe, Nueces, and San Antonio River Basins. The Edwards formation consists of a contributing zone of approximately 4,400 square miles, a recharge zone of 1,500 square miles, and a confined zone of 2,100 square miles for a total of approximately 8,100 square miles. Rainfall across the Region averages 22 inches in the west to 36 inches in the east. Significant recharge occurs in the western portion of the aquifer in the Balcones Fault Zone where the Edwards limestone is still at the land surface and has not been faulted deep into the sub-surface. (See Figure II-3)

The Edwards Aquifer is the primary source of water for the Cities of San Antonio, New

Braunfels, and San Marcos. In addition, many smaller cities within the EAA solely depend on the aquifer for their water supply. Comal and San Marcos Springs, the largest natural springs in Texas, depend on aquifer water and provide significant surface water flows to both the Guadalupe and San Antonio River basins. Smaller springs in the western portion of the Edwards Aquifer are the source of much of the surface water for the upper Nueces River basin.

The total volume of water in the Edwards Aquifer has been estimated at 45 million acre feet. (*Note: One (1) acre foot of water contains 325,851 gallons*). The aquifer is predominantly composed of porous limestone, which provides rapid recharge during storm events that collect in streams and rivers of the Guadalupe, Nueces, and San Antonio River Basins. The flow of water is generally south/southeast across the recharge zone where the water comes into direct contact with the porous Edwards limestone. The hydraulic gradient lowers as water naturally moves east and northeast to the major springs in New Braunfels, San Marcos, and San Antonio. As water flows from the western counties toward the east, irrigation and municipal water wells intercept a substantial portion of the aquifer's annual recharge. Water is recharged in all three river basins and is discharged through water wells and natural springs in all three rivers basins.

However, recharge is not balanced. For example, approximately 51% of recharge occurs in the Nueces River Basin, 37% in the San Antonio River Basin, and 12% in the Guadalupe River Basin.

The following sections outline population and water demand projections for the SCTWAC counties in the Guadalupe, Nueces, and San Antonio River Basins as identified in the draft 2021 Texas Water Plan. It is important to note that these river basins contribute surface water supplies to areas located outside the boundaries of the Edwards Aquifer Authority and are heavily dependent on spring flows to provide base water flow for each of these rivers.

Figure II-1 EEA & SCTWAC Region SC Tx

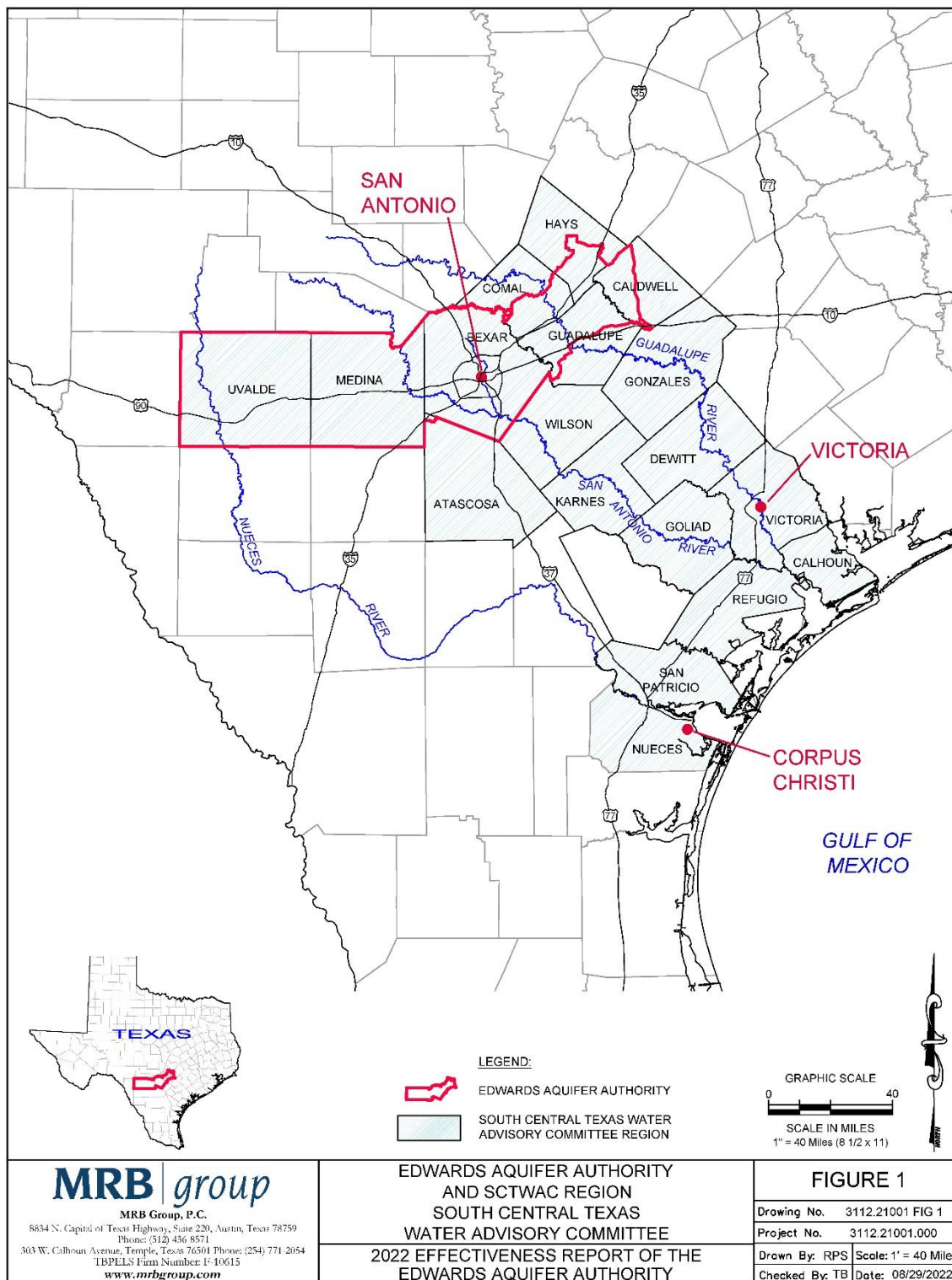


Figure II-2 EEA River Basins SC Tx

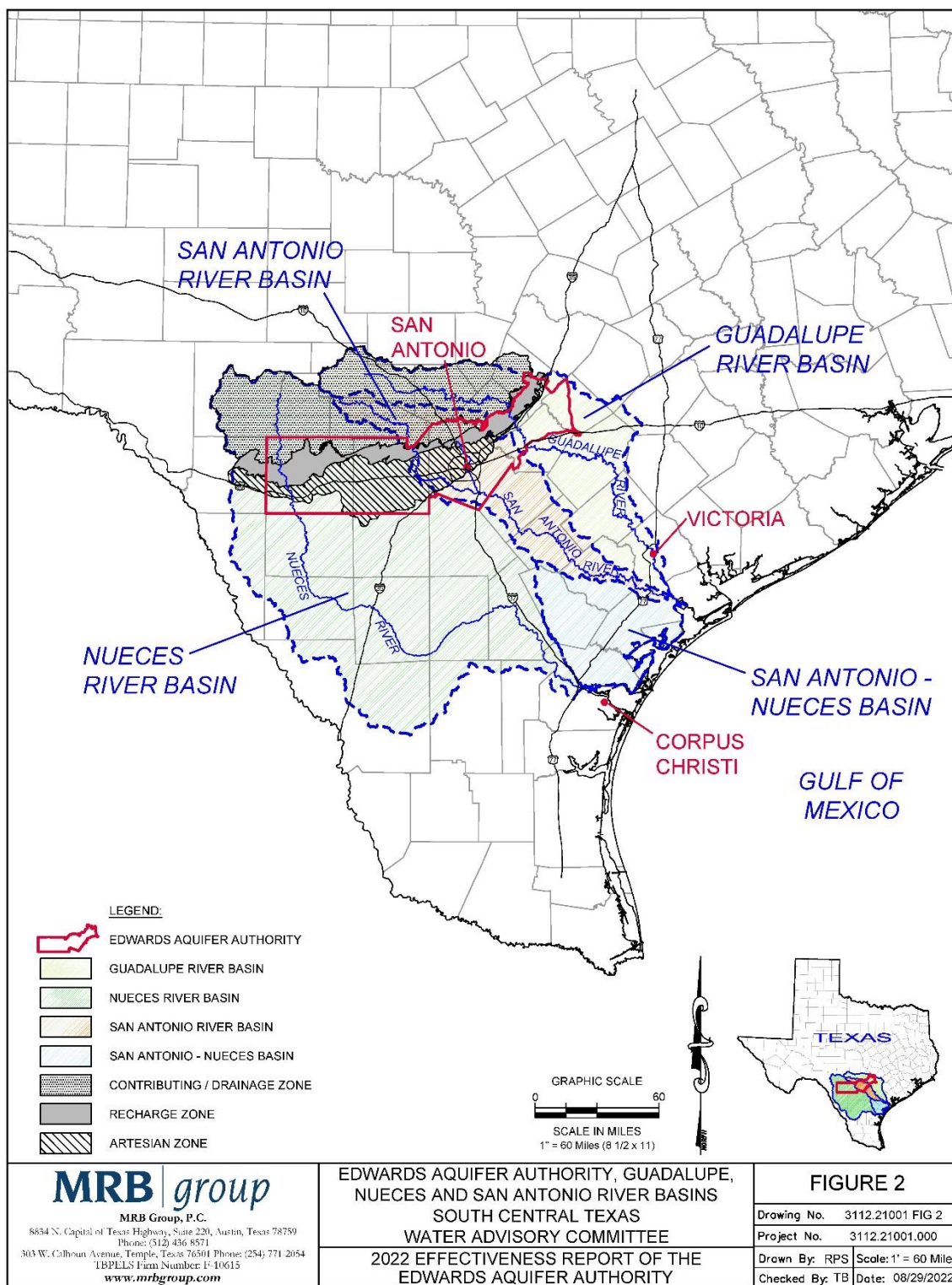
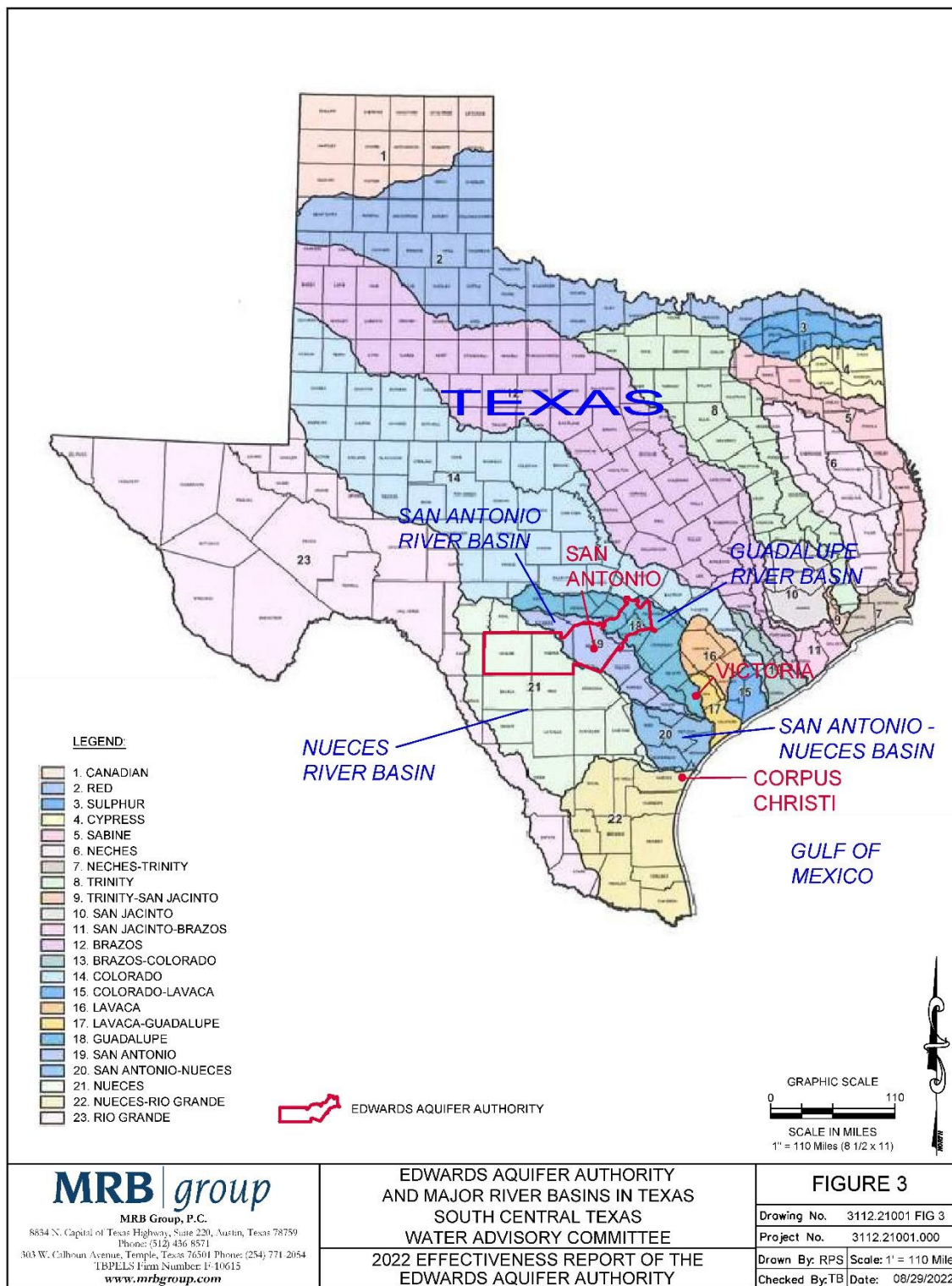


Figure II-3 EEA & Major River Basins SC Tx



2.3.3 GUADALUPE RIVER BASIN

The Guadalupe River Basin is bounded on the north by the Colorado River Basin and on the south by the San Antonio and Nueces River Basins. The total drainage area of the basin is 6,700 square miles. The basin begins at the headwaters near Kerrville, Texas, flows south, and drains into San Antonio Bay. Comal and San Marcos Springs provide the bulk of the base flow for the river below Canyon Dam. The following cities are located or partially located south of Comal and San Marcos Springs.

- Cuero
- Gonzales
- Kyle
- Lockhart
- Luling
- New Braunfels
- Port Lavaca
- San Marcos
- Seguin
- Victoria

2.3.4 SAN ANTONIO RIVER BASIN

The San Antonio River Basin drains a land area of 4,180 square miles. The basin extends from Kerr and Medina Counties in the Texas Hill Country southeast toward the Gulf of Mexico. The central portion of the basin drains approximately half of Medina County to the far northwest, the majority of Bexar, Wilson, and Karnes Counties. The remainder of the basin is drained by a portion of Goliad County and parts of Bandera, Kendall, Comal, Guadalupe, DeWitt, Kerr, Atascosa, Victoria, and Refugio Counties.

The basin's major watersheds are:

- Medina River
- Leon Creek
- Upper San Antonio River
- Salado Creek

- Cibolo Creek
- Lower San Antonio River

The following are major cities within the river basin:

- Alamo Heights
- Converse
- Floresville
- Goliad
- Karnes City
- Kenedy
- Kirby
- Leon Valley
- Live Oak
- San Antonio
- Schertz
- Universal City

2.3.5 NUECES RIVER BASIN

The Nueces River Basin, associated coastal basins, bays, and estuaries comprise approximately 31,500 square miles of South Texas. The headwaters are in Edwards County and discharge into Nueces Bay. The area stretches from the Texas Hill Country to the Texas coast. The Upper Nueces Basin provides groundwater for agricultural and municipal purposes. In contrast, surface water from Lake Corpus Christi and Choke Canyon reservoirs provides the primary water source for Corpus Christi and the Coastal Bend region of Texas. It is important to note that the use of surface water is predominantly in the adjacent coastal basins of the Nueces River.

The following are the major cities within the river basin:

- Aransas Pass
- Beeville
- Carrizo Springs
- Corpus Christi

- Cotulla
- Crystal City
- Devine
- Gregory
- Hondo
- Ingleside
- Kingsville
- Pearsall
- Pleasanton
- Port Aransas
- Portland
- Robstown
- Rockport
- Taft
- Uvalde

2.3.6 POPULATION AND WATER DEMAND PROJECTIONS FOR SCTWAC COUNTIES

Table II-2 lists population projections developed by the Texas Water Development Board for the Regional Water Planning Groups tasked with developing the Texas Water Plan. The projections show that the most significant population increases are projected to be in Bexar, Nueces, Hays, Guadalupe, Comal, and Victoria Counties, with all but Nueces County located in the San Antonio and Guadalupe River Basins. This growth will depend upon adequately managing the groundwater and surface water resources in the Region.

Table II-2 Population Projections by County for SCTWAC Counties

2020-2070

County	Basin	2020	2030	2040	2050	2060	2070
Uvalde	Nueces	28,896	31,548	33,861	36,257	38,543	40,734
Medina	Nueces	52,653	59,694	65,676	70,896	75,605	79,700
Bexar	San Antonio	1,974,041	2,231,550	2,468,254	2,695,668	2,904,319	3,094,726
Comal	Guadalupe	152,499	193,188	234,515	276,239	317,682	357,464
Guadalupe	Guadalupe	182,693	235,318	276,064	315,934	356,480	396,261
Hays	Guadalupe/ Colorado	183,278	240,549	303,637	353,712	441,377	541,765
Caldwell	Guadalupe	47,008	57,533	67,955	78,249	88,639	98,754
Gonzales	Guadalupe	21,751	23,921	25,963	28,330	30,738	33,256
Wilson	Guadalupe	54,266	66,837	79,044	90,016	100,411	109,771
Atascosa	Nueces	52,574	60,755	68,210	75,481	82,324	88,676
Karnes	Nueces	15,456	15,938	15,968	15,968	15,968	15,968
Dewitt	San Antonio	20,855	21,555	21,900	22,216	22,245	22,572
Goliad	Guadalupe	8,427	9,519	10,239	10,545	10,759	10,884
Victoria	Guadalupe	93,857	100,260	105,298	109,785	113,470	116,522
Calhoun	Guadalupe	24,037	26,866	29,622	32,276	34,906	37,454
Refugio	San Antonio/ Nueces	7,687	7,929	7,985	78,119	8,175	8,213
Nueces	Nueces/ Rio Grande	374,157	407,534	428,513	440,797	449,936	456,056
San Patricio	San Antonio/ Nueces	68,760	72,114	74,043	75,451	76,405	77,049
Total		3,427,856	3,762,348	4,316,747	4,805,939	5,167,982	5,585,825

Source: Texas Water Development Board

Table II-3 lists water demand projections for the SCTWAC counties. The Texas Water Development Board developed these projections for the Regional Water Planning Groups tasked with developing the Texas Water Plan. Water demands are highest in Bexar, Nueces, Victoria, Uvalde, Medina, and San Patricio Counties. The demands in the Upper Nueces Basin are primarily agricultural. In the Southern Nueces Basin, demands are influenced heavily by industrial water demands.

**Table II-3 Water Demand Projections for SCTWAC Counties
2020-2070
(in acre feet)**

County	Basin	2020	2030	2040	2050	2060	2070
Uvalde	Nueces	73,467	74,152	74,647	75,323	76,062	76,818
Medina	Nueces	70,826	71,745	72,527	73,276	74,069	74,822
Bexar	San Antonio	344,503	370,868	395,122	420,879	446,877	471,297
Comal	Guadalupe	42,052	51,191	59,498	67,595	76,204	84,763
Guadalupe	Guadalupe	40,989	47,698	52,552	57,475	62,659	67,877
Hays	Guadalupe/ Colorado	40,729	50,453	61,476	72,555	89,124	107,760
Caldwell	Guadalupe	7,719	8,765	9,862	10,998	12,205	13,415
Gonzales	Guadalupe	23,388	23,625	23,613	23,697	23,815	24,336
Wilson	Guadalupe	30,059	31,374	32,664	33,820	34,947	36,116
Atascosa	Nueces	52,389	53,409	54,252	54,513	54,769	55,263
Karnes	Nueces	8,363	7,819	7,141	6,494	5,862	5,829
Dewitt	San Antonio	10,060	9,973	9,179	8,424	7,682	7,358
Goliad	Guadalupe	7,205	7,318	7,389	7,417	7,443	7,460
Victoria	Guadalupe	74,761	76,311	77,009	77,740	78,451	79,066
Calhoun	Guadalupe	65,351	71,934	72,169	72,429	72,717	73,004
Refugio	San Antonio/ Nueces	2,776	2,778	2,737	2,736	2,727	2,724
Nueces	Nueces/ Rio Grande	124,951	134,710	137,462	139,157	140,845	142,120
San Patricio	San Antonio/ Nueces	66,428	71,041	71,118	71,230	71,371	71,499
Total		1,086,016	1,165,164	1,220,417	1,275,758	1,337,829	1,401,527

Source: Texas Water Development Board

III. STATUS OF MEETING EFFECTIVENESS MEASURES ESTABLISHED IN THE 2020 REPORT

The SCTWAC has adopted Effectiveness Measures to provide benchmarks to assess the success of the EAA in meeting its legislatively mandated mission and protecting springflows and downstream interests. The Effectiveness Measures have evolved over the past 20 years to reflect legislative actions, permitting and legal challenges, and policy changes that have brought the EAA into the forefront of developing water management strategies through the development of the Edwards Aquifer Habitat Conservation Plan (HCP), and the issuance of the Incidental Take Permit (ITP). The EAHCP and ITP have led to a significant increase in the EAA aquifer and water quality

research. The signatories to the ITP include the EAA, the Cities of San Antonio, San Marcos, New Braunfels, and Texas State University. Texas State University and Texas Parks and Wildlife Department have committed to protecting the threatened and endangered species dependent on Comal and San Marcos spring flows. The continued spring flows have a direct impact on the availability of water for downstream interests.

The Effectiveness Measures for this report focused on looking forward to the future and anticipating upcoming challenges that the EAA will face. The Effectiveness Measures targeted the following areas:

- Regulatory
- Financial
- Planning, Research, and Partnership Development
- Water Quality
- Water Conservation and Reuse
- Education
- Continued Implementation of the HCP and ITP compliance

3.1 REGULATORY

Historically, the EAA has focused on the development of groundwater withdrawal permits within the freshwater zone of the Edwards Aquifer. This regulatory approach was based on the theory that only the freshwater zone would be developed. The development of EAA technology that can treat the brackish water has shown that the brackish zone can be used for Aquifer Storage and Recovery (ASR). As a result, the legislature established the usage cap of 572,000 acre feet/year for the entire aquifer, not just the freshwater zone. This has resulted in getting specific legislative approval for the ASR project in New Braunfels.

A related issue has been the dramatic population increase along the I-35 corridor, increasing the demand for groundwater in the Trinity and Carrizo-Springs aquifers. Other groundwater districts in each County regulate these aquifers. Table III-1 lists these Groundwater Conservation Districts and the regulated aquifers. In total, there are 11 groundwater districts that overlap with the EAA.

Table III-1 Groundwater Districts Within the EAA Jurisdiction

County	District(s)	Aquifers Regulated
Hays	Hays Trinity GCD	Trinity
	Barton Springs/Edwards Aquifer Conservation District	Edwards/Trinity
	Plum Creek Conservation District	Carrizo-Wilcox
Guadalupe	Guadalupe County GCD	Carrizo-Wilcox
Bexar	Trinity Glen Rose GCD	Trinity
Comal	Comal Trinity GCD	Trinity
Caldwell	Plum Creek Conservation District	Carrizo-Wilcox
	Gonzalez County UWCD	Carrizo-Wilcox
	Barton Springs/Edwards Aquifer Conservation District	Edwards/Trinity
Medina	Medina County GCD	Edwards/Trinity
Uvalde	Uvalde County UWCD	Edwards (BFZ), Edwards Trinity (Plateau), Carrizo-Wilcox/Trinity

GCD – Groundwater Conservation District

UWCD – Underground Water Conservation District

The following are the regulatory effectiveness measures and what the EAA has done to address them.

Effectiveness Measure:

Clarify the brackish zone of the Edwards Aquifer can be used for ASR development with no penalty for storing and withdrawing the water.

Use of the brackish zone for ASR development still needs specific legislative approval.

Effectiveness Measure:

Currently, any utility asking to use the brackish zone for ASR has to get specific legislative approval for each project. It is recommended that the EAA establish a policy supporting use of the brackish zone for ASR development and develop rules to regulate the use of the brackish zone for ASR development.

The EAA has demonstrated its support for ASR development in the brackish zone by supporting the New Braunfels ASR study.

Effectiveness Measure:

Begin groundwork with the legislature to educate them on the relationship of the brackish zone and its potential for use in ASR projects and potentially for treating and/or blending water. As part of this process, develop options for the use of the brackish zone and how these uses could be permitted.

The EAA has been working with local legislators to educate them on the issues. The last session proposed legislation to accomplish this effectiveness measure, but the draft legislation did not pass. The EAA was not used as a resource.

Effectiveness Measure:

Enter into formal working agreements with other groundwater districts to assure that the permitting process for each District is consistent and transparent in protecting the Edwards Aquifer and springflows.

The EAA has continued to have informal working agreements with local groundwater districts to assure that any permits issued by the Districts include the requirement that a permit to drill through the Edwards Aquifer be obtained from the EAA.

3.2 FINANCING

Effectiveness Measure:

The EAA should begin a process with permit holders to begin to explain the need for the increased fees and how the increased revenues will be used.

The EAA staff have been communicating with permit holders detailing that there has not been an increase in fees for almost ten years, and the increase will be used to finance its operations and programs. The EAA has commissioned a study by TXP, Inc. that gave several options to assist the EAA in meeting its revenue needs by lowering the amount of reserves for implementation of the ITP through the use of an insurance policy similar to crop insurance provided by USDA.

Effectiveness Measure:

EAA seems to have been put in the position of taking over the conservation easement program by default with the City of San Antonio beginning to wind down its program. The EAA should clarify how much money is to be dedicated to this future program and an estimate of available funding at the termination of the City of San Antonio's conservation acquisition program.

The EAA has been working with the City of San Antonio to continue implementing the conservation easement program. It is anticipated that the EAA will take over active management within ten years or when the current bond funds are exhausted.

Effectiveness Measure:

The establishment of the EAC has the potential to provide additional resources for education and research. The relationship between the EAA and EAC should be clarified to provide a long-term plan where it is clear when the EAC will be self-sufficient, and the EAA in-kind assistance can be reduced.

The EAA is still providing support for the EAC. The goal is to have the EAC self-sufficient within the next five years using donations and support from private sources.

3.3 PLANNING, RESEARCH, AND PARTNERSHIP DEVELOPMENT

The EAA has been actively expanding its planning, research, and partnership development for several years. This activity has been associated with the implementation of the EAHCP and other research and modeling efforts. The EAA has worked with the San Antonio Fire Department, Morgan's Wonderland Camp, the City of San Antonio, Historically Underutilized Businesses, the Community Advisory Committee, and the continued support of the Edwards Aquifer Conservancy.

Effectiveness Measure:

Continue research into the interrelationship between the Edwards and Trinity aquifers and how stream flow in the contributing and recharge zones.

The EAA has continued its research and modeling of the interrelationship between the aquifers. The staff has also shared resources with the Hays Trinity GCD and Bandera GCD, as well as holding two workshops a year dealing with land management and soil improvement to increase recharge efficiency.

Effectiveness Measure:

Continue support of riparian restoration as part of the EAHCP and for the contributing and recharge zones.

The EAA has continued work in support of riparian restoration as part of the EAHCP and separate from the EAHCP. Staff has been working with the San Antonio River Authority and universities and establishing an advisory panel. The EAA has hosted a forum at the Research Park with

conservation easement holders to improve riparian restoration.

Effectiveness Measure:

Continue working with the Region L Planning Group to develop the 2021 State Water Plan.

The EAA has continued to work with Region L Planning Group in the development of the 2021 State Water Plan.

Effectiveness Measure:

Work with conservation groups to identify strategic properties to acquire for conservation easements.

The EAA has been working with local governments and conservation groups to identify potential conservation easements that can be acquired. Groups that the EAA has been working with include the City of San Antonio, Comal County, and the Hill Country Conservancy.

Effectiveness Measure:

With the loss of funding from the City of San Antonio for conservation easement acquisition, the EAA should develop a comprehensive plan detailing how funds collected through aquifer fees will be used for the acquisition of conservation easements.

The EAA is looking at developing long-term partnerships with public and private funding sources to ensure adequate funding for the continued acquisition and management of conservation easements once the funding from the City of San Antonio is exhausted.

Effectiveness Measure:

With the limitation of funds through aquifer fees, the EAA should partner with conservation groups, foundations, non-profits, and state and federal agencies to leverage EAA funding to continue with land acquisition and determine what group is to operate and maintain the properties.

EAA has successfully leveraged its resource through corporate donations and grant funding from the Texas Water Development Board, San Antonio River Authority, Department of Defense, and the United States Department of Agriculture. The EAA continues to look toward long-term partnerships with both public and private sources to continue the management of conservation easements. The inclusion of the EAA in the Camp Bullis Sentinel Landscape (CBSL) consortium has increased the chances of the EAA receiving grants to achieve this objective.

Effectiveness Measure:

Continue to facilitate meetings with groups that are active in planning in the Region.

By continuing to host forums, meetings among stakeholders, and in cooperation in multi-jurisdictional research, the EAA has continued to facilitate meetings that are active in planning within the Region.

3.4 WATER QUALITY

The EAA has continued to monitor water quality in accordance with the EAHCP and ITP requirements and working with river authorities and cities to expand water quality analysis in the recharge zone. The EAA has worked with local governments to provide sampling and water quality research, and fieldwork near Comal and San Marcos Springs as part of the EAHCP, and has successfully removed invasive species within the springs. EAA staff have also begun focusing on water quality monitoring on private wells and within the recharge zone outside city limits. The Water Quality Effectiveness Measures established in the 2020 report focused on cooperative efforts with other local governments and additional water quality monitoring in the contributing and recharge zones.

Effectiveness Measure:

The EAA has worked with major players in the Region to share water quality data. The EAA is encouraged to place Water Quality Best Management Practices on its website that can be used by communities and private interests in implementing water quality improvements.

The EAA has placed the Water Conservation BMPs on its website as part of its water conservation plan.

Effectiveness Measure:

Identification of priority areas for water quality protection in the contributing and recharge zones that would impact water quality in the aquifer or would impact water quality in Comal and San Marcos Springs.

The EAA has focused its water quality efforts on the recharge zone due to the immediate impact a problem can have on the aquifer. A division of labor has evolved where cities monitor water quality within their corporate limits, and the EAA has focused its efforts outside the corporate limits of the cities. Water quality data is shared between all groups.

Effectiveness Measure:

Continue to support the City of San Antonio staff for water quality fieldwork in conservation areas.

EAA staff continues to support the City of San Antonio in doing water quality fieldwork in conservation areas. The City compensates the EAA for these efforts.

Effectiveness Measure:

Continue cooperative work with other partners to share water quality data and information.

There continues to be cooperation between those collecting and interpreting water quality data. The EAA facilitates the sharing of data through hosting meetings and forums.

Effectiveness Measure:

Continue well registration and well-plugging activities.

Well registration and well-plugging activities have continued with a focus on Bexar County and the western counties.

3.5 WATER CONSERVATION AND REUSE

Effectiveness Measure:

EAA is encouraged to consider funding smaller utilities efforts to reduce water loss through leak detection. An implementation plan showing a schedule for fixing leaks based on water loss should be considered as part of any financial assistance.

The EAA has not considered this option because they have not had much interest from local utilities.

Effectiveness Measure:

EAA should provide leadership in promoting water reuse among smaller utilities and assist those communities in identifying resources to examine the feasibility of water reuse. EAA should monitor existing and proposed wastewater discharges.

The EAA has addressed water reuse through its conservation plan. Do not have an ongoing process to promote the use of reusing wastewater effluent.

Effectiveness Measure:

Develop partnerships with other funding agencies to leverage EAA and local resources for conservation and reuse efforts.

The EAA has developed partnerships with federal and State agencies to assist in leveraging local resources for conservation efforts.

Effectiveness Measure:

EAA should consider acting as a coordinator between local utilities and regional and State agencies to help implement these conservation and reuse objectives.

The EAA has worked through its Conservation Plan with local utilities while cooperating with regional and State agencies to implement conservation and reuse objectives.

Effectiveness Measure:

EAA should encourage reuse or land application for municipal wastewater discharges.

The EAA Conservation Plan generally addresses reuse issues.

3.6 EDUCATION

Effectiveness Measure:

Complete implementation of the partnership with Morgan's Wonderland Camp and consider outreach to local public and private schools to bring more students in for the experience.

The complete implementation of the partnership with Morgan's Wonderland Camp was accomplished in 2022 with the completion of the Education Outreach Center.

Effectiveness Measure:

Integrate the educational programs of the Edwards Aquifer Conservancy and EAA programs so that public and private donations can help support these efforts.

This measure was addressed through the coordination of communication efforts and fundraising with the Edwards Aquifer Conservancy. Fundraising events included the Valero Champions for Charity event.

Effectiveness Measure:

Continue the newsletters, social media, and YouTube presentations and programs. These forums can be used for promoting the goals of the EAA and continue to provide a variety of public outreach.

The EAA has continued to produce effective newsletters, a presence on social media, and regular YouTube presentations and programs. These efforts have been successful in presenting the

educational objectives of the EAA.

3.7 CONTINUED IMPLEMENTATION OF THE EDWARDS AQUIFER HABITAT CONSERVATION PLAN AND INCIDENTAL TAKE PERMIT COMPLIANCE

Effectiveness Measure:

Continue to implement the EAHCP and Comply with the ITP through the adaptive management process to address issues as they arise.

The EAA has continued to meet all challenges that they have faced with meeting this effectiveness measure. With the expiration of the ITP in 2028, the EAA has begun the work of developing a permit renewal process and has presented a comprehensive work plan to the EAA Board of Directors to obtain the renewal.

Table III-2 Status of Meeting the 2020 Effectiveness Measures

Effectiveness Measure	In Progress/ Completed	Not Complete
Regulatory		
Clarify that the brackish zone of the Edwards Aquifer can be used for ASR development with no penalty for storing and withdrawing the water	✓	
EAA establish a policy supporting the use of the brackish zone and develop rules to regulate the use of the brackish zone	✓	
Educate the legislature on the relationship of the brackish zone and its potential for use in ASR projects and for potential blending or treatment	✓	
Enter into formal working relationships with other groundwater districts to assure that permitting is consistent and transparent	✓	
Financing		
EAA should begin a process with permit holders to explain the need for increased fees and how the revenue is to be used	✓	
EAA should begin planning for long term financing of acquisition and maintenance of conservation easements	✓	
Development of a plan to assure long term financing for the Edwards Aquifer Conservancy	✓	
Planning, Research, and Partnership Development		
Continue research into the interrelationship between the Edwards and Trinity Aquifers and their impact on stream flow in the contributing and recharge zones	✓	
Continue support of riparian restoration	✓	
Continue to work with Region L Water Plan Group	✓	

Work with conservation groups to identify strategic properties for conservation easement acquisition	✓	
Partner with conservation groups, foundations, non-profits, state and federal agencies to leverage EAA resources	✓	
Continue to facilitate meetings with groups that are active in planning within the Region	✓	
Water Quality		
Place water quality best management practices on the EAA website	✓	
Identify priority areas for water quality protection in the contributing and recharge zones that would impact water quality or would impact water quality in Comal and San Marcos springs	✓	
Continue to provide staff support for the City of San Antonio for water quality field work	✓	
Continue cooperative work with other partners to share water quality data and information	✓	
Continue well registration and plugging	✓	
Continue bi-annual collection of hazardous waste and providing financial assistance for obtaining secondary containment for regulated above ground storage tanks	✓	
Water Conservation and Reuse		
Funding for leak detection for smaller utilities		✓
Provide leadership in promoting water reuse among smaller utilities	✓	
Develop partnerships with other funding sources to leverage EAA resources	✓	
Act as a coordinator between local utilities to assist in implementing conservation and reuse objectives	✓	
Education		
Complete the Education Outreach Center and consider outreach to local public and private schools	✓	
Integrate the educational programs of the EAC and EAA so that public and private donations can help support these efforts	✓	
Continue with the newsletters, social media, and You Tube presentation and educational presentations	✓	
Continued Implementation of the EAHCP and Incidental Take Permit Compliance		
Continue to implement the EAHCP and ITP	✓	

IV. EFFECTIVENESS MEASURES FOR THE 2024 REPORT

The establishment of Effectiveness Measures by the SCTWAC has evolved to reflect the changing priorities of the EAA. The agency's initial focus was to meet the legislative mandate of issuing permits for water use from the Edwards Aquifer. The EAA was confronted with multiple lawsuits

challenging its authority throughout this process. As a result of the permitting process, an active water market was established that facilitated the sale and leasing of water within the EAA jurisdiction. The development of Critical Period Rules established guidelines for the protection of the water supply during drought periods. These rules established trigger conditions for various aquifer levels requiring all permit holders to reduce water use so that spring flows in Comal and San Marcos Springs are protected.

Concurrent with this process the EAA led the effort to develop the Edwards Aquifer Habitat Conservation Plan. This plan served as the basis for protecting the endangered species found in the springs and the protection of springflows. In addition, it developed protection strategies that allowed the issuance of an Incidental Take Permit in 2013 from the U.S. Fish and Wildlife Department. The permit holders included the EAA, the Cities of San Antonio, New Braunfels, San Marcos, and Texas State University. One of the unique aspects of this effort was the development of an adaptive management process to address unforeseen situations and develop strategies that addressed the issue. This process has allowed the various stakeholders involved the ability to work together as a group to solve problems proactively. The Incidental Take Permit was initially issued for 15 years and will expire in 2028. The EAA and other permit holders have shown that the measures established in the Edwards Aquifer Habitat Conservation Plan are working. They have begun developing the information required for a permit renewal that will cover a 30-year period starting in 2028.

The EAA has been evolving over the past 25 years, which is reflected in the latest Strategic Plan 2021-2030. The plan lays out the strategies for the agency with a focus on research, education, and aquifer sustainability. It is recognized that implementing these strategies will take time and not be fully achieved over one biennium. Still, the current drought will require the implementation of critical period rules that will severely reduce the availability of Edwards Aquifer water for both agriculture and municipal and industrial uses, particularly in the western counties within the EAA jurisdiction. At this juncture, it appears that the EAA may have to go to Stage 5 of the critical period rules in September 2022. The last time this stage was required was during the 2011-2014 drought. The ongoing drought increases the probability that measures detailed in the Incidental Take Permit will have to be implemented. The implementation of these measures will require financial resources. The EAA has not had a rate increase over the past nine years and has sufficient

reserves to cover the costs of meeting the requirements of the Incidental Take Permit. If the drought continues, the reserves will be severely depleted. The EAA commissioned a study to identify ways of funding the reserve funds including taking out insurance policies to cover these costs. This approach is similar to purchasing crop insurance through the U.S. Department of Agriculture. The EAA has consistently moved forward, meeting its legislative mandates, developing long-term research programs, and expanding its education programs. The 2024 effectiveness measures are focused on the following areas:

- Regulatory
- Financial
- Planning, Research, and Partnership Development
- Water Quality
- Water Conservation and Reuse
- Education
- Continued Implementation of the Edwards Aquifer Habitat Conservation Plan and Incidental Take Permit

4.1 REGULATORY

The EAA's initial regulatory role was legislatively mandated to be limited to 572,000 acre feet/year and is designed to regulate water withdrawals within the freshwater zone of the Edwards Aquifer. However, technology advancements have made use of the saline portion of the aquifer feasible for Aquifer Storage and Recovery (ASR), and treatment alternatives are available to potentially use the saline portion of the aquifer for drinking water. The successful ASR study by the New Braunfels Utilities, EAA, and Texas Water Development Board has demonstrated that it will work in the Edwards Aquifer. At issue was the permit limitation for pumping from the aquifer. The legislature had to grant the City of New Braunfels a special exemption to perform the study. Currently, any other permit holder wanting to develop an ASR project would have to obtain a special legislative exemption.

Groundwater planning and permitting have significantly changed over the past 20 years with the development of groundwater resources in other aquifers located below the Edwards Aquifer. In addition, the growth along the I-35 corridor has put increased pressure on water utilities to expand their water supply into lower aquifers, particularly the Trinity and Carrizo-Wilcox aquifers. There

are 11 different Groundwater Conservation Districts within the counties that the EAA regulates. These Districts historically have permitted small communities and agricultural interests. With this many regulatory agencies, there is a potential for conflicting rules and implementation strategies that could impact the EAA and its permit holders. Table IV-1 lists the Groundwater Conservation Districts within the EAA jurisdiction. Water utilities between Austin and San Antonio are aggressively looking to obtain additional water supplies and have become innovative and more efficient in using existing supplies. The EAA has had informal working relationships with these Groundwater Conservation Districts with respect to overlapping permitting responsibilities.

The EAA has used diversion dams for several years. These TCEQ permits for the dams are currently being negotiated between the EAA and TCEQ. The permit for one of the dams has been approved, and there are active negotiations between the parties to renew the second permit. EAA has indicated if the permit is denied they will go to a contested hearing.

The EAA has also been continuing its Abandoned Well Program. Priorities have been established using a risk-based assessment and prioritization approach. These efforts have focused on western counties within the EAA jurisdiction.

Table IV-1 Groundwater Conservation Districts with the EAA Boundaries

County	District(s)	Aquifers Regulated
Hays	Hays Trinity GCD Barton Springs/Edwards Aquifer CD Plum Creek CD	Trinity Edwards/Trinity Carrizo-Wilcox
Guadalupe	Guadalupe GCD	Carrizo-Wilcox
Bexar	Trinity Glen Rose GCD	Trinity
Comal	Comal Trinity GCD	Trinity
Caldwell	Plum Creek CD Gonzalez County UWCD Barton Springs/Edwards Aquifer CD	Carrizo-Wilcox Carrizo-Wilcox Edwards/Trinity
Medina	Medina County GCD	Edwards/Trinity
Uvalde	Uvalde County UWCD	Edwards/Edwards Trinity/ Carrizo- Wilcox/Trinity

The following are the Effectiveness Measures dealing with regulatory matters.

Effectiveness Measure:

- **Begin educating legislators that the brackish zone of the Edwards Aquifer can be used for ASR development with no penalty for storing and withdrawing the stored water.**

Effectiveness Measure:

- **Consider developing rules that regulate the process of developing ASR projects in the saline portion of the Edwards Aquifer to assure consistency in approach and regulation.**

Effectiveness Measure:

- **Develop formal working agreements with other groundwater conservation districts to assure that the permitting process for each District is consistent and transparent in protecting the Edwards Aquifer and springflows.**
- **Effectiveness Measure:**
- **Continue effort to renew recharge dam permits.**
- **Effectiveness Measure:**
- **Continue implementation of the Abandoned Well Program.**

4.2 FINANCING

The EAA has relied on permit fees and grants to fund its operations. The current fee structure has been in place for the past nine years—either a fee increase or other measures are required to provide sufficient resources for running the agency and complying with the Incidental Take Permit. The EAA commissioned a study by TXP to offer alternatives that would minimize or delay a fee increase. The study's results outlined strategies that would lower the reserve fund requirements. The strategy included exploring the potential for obtaining private insurance to cover some or all of the costs associated with the reserve funds. This insurance would be similar to crop insurance that the U.S. Department of Agriculture administers. This approach can potentially lower the EAA reserve fund requirements, thereby delaying or reducing permit fees. If the EAA does move forward with this concept, they will use five years to implement fully,

The announcement that the City of San Antonio would reduce its financial support for the acquisition and maintenance of conservation easements will end in 10 years or once the current \$100 million commitment is exhausted. The focus for new acquisitions is currently on areas east of Cibolo Creek and Hays County. The EAA anticipates being an active manager once the agency takes over the program. The focus of the conservation easements is to protect and improve water quality and doing the necessary research to measure the results. The EAA is actively looking for

partners for this research.

EAA has also received corporate gifts for two programs and for free consultation services. The first is expansion of conservation/land management practices on the recharge zone. The second is a groundwater trust program and that acceptance into the Qualified Ventures "Texas Outcomes-Based Finance Challenge." The inclusion in this group has allowed EAA to access free consultation to identify and implement alternative funding strategies supporting aquifer sustainability.

The EAA formed the Edwards Aquifer Conservancy (EAC) to complement its research and educational objectives and be eligible for funding that the EAA could not access. The goal of the EAA is to assist the EAC for the next five years with the expectation that the EAC will develop its long-term funding resources to support its mission.

Effectiveness Measure:

- **Continue researching the potential for protecting funds allocated to implementation of the EAHCP and ITP using an alternative means for reducing the current reserve requirements. This would be accomplished using a private insurance strategy to cover risk associated with the current reserve fund requirements. These strategies need to include protections the EAA would need in case of a default by the private insurer.**

Effectiveness Measure:

- **Since the implementation of the conservation measures includes the payment to agricultural permit holders not to plant crops, consider discussions with USDA to have the agency provide assistance through guaranteed or direct insurance coverage that would mitigate the risk for a private insurer and potentially reduce the premium required from the EAA.**

Effectiveness Measure:

- **If the EAA were to implement the use of an insurance program to reduce reserves it must be clear that this reduction would only affect future payments to the reserve funds not for EAA operations.**

Effectiveness Measure:

- **The EAA should continue its support of the Edwards Aquifer Conservancy**

with the goal of having the Conservancy be self-sufficient and be able to support the implementation of the EAA Next Generation concepts.

4.3 PLANNING, RESEARCH, AND PARTNERSHIP DEVELOPMENT

The EAA has continued to achieve long-range planning objectives through research and partnership development. Funding for several research objectives has come from working with other entities, with funding coming from private sources. There is a recognition that there is a need to share information with other research groups on various topics, such as how to increase recharge. The work has focused on identifying the most environmentally sensitive and economically beneficial lands to preserve, protect, and enhance Edwards Aquifer recharge. This effort has been focused on Comal and Hays counties. The work in these counties has included soil restoration and land management strategies that enhance water quality and recharge. The sharing of information with the Hays/Trinity Groundwater Conservation District and the Bandera County Groundwater Conservation District is done through joint workshops twice a year. As part of this effort, there is continued research on the interrelationship of the Edwards and Trinity Aquifers.

The Field Research Park (FRP) was established in December 2019 on a 150-acre tract donated to the EAA from the City of San Antonio. The site is currently used for several research projects staffed by the EAA and outside groups such as the University of Texas at San Antonio. Current research includes just completed Phase 1 of a soil restoration and land management demonstration project. The work focuses on improving soil health restoration with the objective of creating greater water holding capacity. The long-term goal is to positively impact the diffuse recharge of the aquifer and improve water quality in runoff to surface streams—this is just the first phase of a 5-7 year study.

The Interformational Flow (IFF) Study has continued with work done at the FRP. There has been extensive work and data collection in the Nueces and Blanco river basins. This work has been completed along with relevant stream gain/loss studies. While the collaborative effort with the New Braunfels ASR project and the Blanco River basin hydrographic model has been completed, future work will be on the Cibolo Creek, Dry Comal River, and Comal River basins. This effort will focus on using the FRP extensively since it is located on Cibolo Creek and the geology and features along the boundary between the Trinity and Edwards aquifers.

The EAA is actively working with stakeholders and funding sources to provide funding for its ongoing research activities. Other research partnerships outside the EAHCP have been ongoing, including work with the San Antonio River Authority and the University of Texas San Antonio. The EAA has developed working and funding relationships with corporate donors, the Texas Water Development Board, San Antonio River Authority. In addition, EAA has been actively engaged with the Department of Defense and the United States Department of Agriculture in the Camp Bullis initiative. This initiative has the potential for long-term support for the EAA in its research efforts.

The EAA has continued its long-term relationship with the San Antonio Water System to provide funding to have the EAA provide staff resources for maintaining and oversight of the existing conservation easements. This relationship has provided valuable information for other EAA initiatives as well as an outside source of funding. The EAA has also worked with local governments, including Comal County and the Hill Country Conservancy, to identify future conservation easements. A related issue is the development of long-term funding sources for continued easement acquisition and maintenance to continue when the City of San Antonio's resources are exhausted.

Effectiveness Measure:

- **Continue research into methods of improving water quality and recharge through improvements to soil health and riparian restoration.**

Effectiveness Measure:

- **Continue research on the interrelationship between the Edwards and Trinity aquifers.**

Effectiveness Measure:

- **Continue developing partnerships with outside funding sources to leverage EAA resources to meet short-term and long-term objectives.**

Effectiveness Measure:

- **Continue to work with outside organizations to identify potential properties for conservation easement acquisition.**

Effectiveness Measure:

- **Continue to work with Edwards Aquifer Conservancy to develop a long-term**

financing option for continued conservation easement acquisition and maintenance. The goal of this effort is to have funding in place as the City of San Antonio's resources are exhausted.

4.4 WATER QUALITY

Water quality has been an increasingly important component of the EAA mission. The EAA has been sampling water quality in public and private wells, streams, and Comal and San Marcos Springs. Maximum Contaminant Levels established by the TCEQ are the benchmark used for water quality analysis. EAA work has shown that there has not been a significant change in water quality over the years. The EAA has also continued its well registration and plugging activities focusing on Bexar County and the western counties.

Municipal water quality ordinances and TCEQ regulations have focused on corporate limits and developing areas. While the regulations may differ somewhat in scope, the greatest concern is the impact of catastrophic events that could enter the aquifer. A related concern is that contaminants could enter through abandoned wells. With this in mind, the EAA has focused its efforts on monitoring both surface and groundwater quality in areas outside of cities and within the recharge zone. This effort has grown over time, and the program continues to expand. In addition, the City of San Antonio continues to contract with the EAA to monitor water quality in the conservation easements.

The rapid development along the I-35 corridor has created concern over its impact on water quality. While the EAA has not completed a water quality model to track any issues, it has done a statistical trend analysis. The EAA also was involved in bi-annual collection events to collect hazardous waste and provide financial assistance for the secondary containment of regulated above-ground storage tanks. This program has been retired as cities and TCEQ have taken steps to collect this waste and have sites for dropping off hazardous waste. It is anticipated that the EAA will begin to focus on collecting hazardous waste from agricultural interests located west of San Antonio.

Effectiveness Measure:

- **Continue collecting water quality data from sampling public and private wells and surface water sources.**

Effectiveness Measure:

- **Identify priority areas for water quality protection in the contributing and recharge zones that would impact water quality in the aquifer or Comal and San Marcos Springs.**

Effectiveness Measure:

- **Consider expanding the water quality analysis to consider the increased urbanization of the I-35 corridor.**

Effectiveness Measure:

- **Continue providing staff support to the City of San Antonio for water quality field work in conservation easements.**

Effectiveness Measure:

- **Implement a hazardous waste disposal program to assist agricultural interests in responsibly disposing of this waste.**

Effectiveness Measure:

- **Continue well registration and plugging program.**

4.5 WATER CONSERVATION AND REUSE

The SCTWAC has supported water conservation efforts by the EAA and permit holders. As a result, the EAA began water conservation efforts, including plumbing retrofits and municipal leak detection. With the adoption of the EAHCP, resources were made available, and the EAA efforts were directed to creating the most significant savings possible to meet the conservation goals established in the plan. This goal has been achieved by entering into agreements with SAWS to pay for leak detection in their distribution system and with agricultural interests to implement water conservation practices.

The adoption of the Critical Period Rules established trigger conditions that would require reductions in water use based on water levels in the monitoring wells in Bexar and Uvalde counties and springflows at Comal and San Marcos springs. There are five levels of implementation of the critical period rules, with reductions in water use increasing with each critical level. Table IV-2 lists the various mandated reductions for all permit holders in the San Antonio and Uvalde pools.

Table IV-2 Mandated Water Use Reductions for Permit Holders

Critical Period Stage	% Reductions in San Antonio Pool	% Reductions in Uvalde Pool
Stage 1	20	0

Stage 2	30	5
Stage 3	35	20
Stage 4	40	35
Stage 5	44	44

Source: Edwards Aquifer Authority

Perhaps the most innovative approach for implementing short-term water conservation during critical periods was the establishment of the Voluntary Irrigation Suspension Option (VISPO). This initiative was detailed in the EAHCP and includes irrigation users that will reduce or stop using water during drought to protect Comal and San Marcos springflows and the endangered species dependent on the springs. The term of the program is for 5 years. The VISPO program compensates irrigation permit holders for being enrolled in the program, but it also pays an additional amount in years when irrigation is fully suspended. The trigger condition for the program is when the J-17 well in Bexar County is at or below 635 feet on October 1. At that point, the enrolled water must be suspended for the following calendar year. If VISPO is not implemented, the permit holder is in control and can be used or leased during non-suspension years. The enrollment goal for the program was 41,795 acre feet of irrigation water for both base and unrestricted water qualify for the program. The program is completely filled. As detailed on the EAA website, there are two types of payments.

- **Standby Payment:** Every participant will receive a standby payment no later than March 1 of each year. This payment will be made regardless of whether or not the participant is required to suspend withdrawals that year. The amount of the standby payment is \$54 per acre-foot per year over the five years of the program.
- **Forbearance Payment:** In years when withdrawals of enrolled water are suspended, the participants will be paid a forbearance payment no later than March 1 of that year. Forbearance payment is \$160 per acre-foot plus the standby payment of \$54 per acre-foot per year for a total of \$214 per acre-foot for years that suspension is required.

The EAA has done a commendable job in meeting the water conservation goals established in the EAHCP. By focusing on major users, the plan's goals have been attained. The current drought has forced the implementation of Stage 4 restrictions in August 2022, and unless the Region receives significant rainfall in the near future, it is probable that Stage 5 restrictions will be in place, and

the VISPO forbearance payments will be triggered.

The SCTWAC continues to have concerns about smaller municipal permittees that do not have the resources to perform leak detection within their systems. With the reductions forced by the drought, these utilities are directly impacted as they usually don't have alternative water supplies. As water demands continue to increase across the Region, water reuse is a viable resource that needs to be expanded. Research that the EAA has completed has shown that reuse water does not impact water quality within the Edwards Aquifer.

Effectiveness Measure:

- **EAA should consider developing a grant program to assist smaller utilities' efforts to reduce water loss. The program should actively promote the program to smaller utilities and develop a realistic timeline for implementing the recommendations.**

Effectiveness Measure:

- **EAA should consider partnering with smaller utilities to determine what level of reuse could be accomplished under existing TCEQ wastewater permit parameters.**

Effectiveness Measure:

- **Consider identifying areas that could benefit from ASR development within the EAA jurisdiction as a conservation measure.**

Effectiveness Measure:

- **Continue to work with funding agencies to leverage local resources to promote water conservation.**

Effectiveness Measure:

- **The EAA adopted a Groundwater Conservation Plan in 2014. The plan established Best Management Practices that all permit holders were supposed to implement and report annually. EAA should make all annual reports available on their website for easy access.**

4.6 EDUCATION

The EAA has actively promoted ongoing educational programs and outreach during the past two

years. This has been accomplished through outreach on social media, the EAHCP, and Edwards Aquifer Conservancy. The integration of the educational efforts of the EAA and Edwards Aquifer Conservancy is highlighted by the successful partnership with Morgan's Wonderland Camp and the opening of the Education and Research Center. The educational materials and programs that the EAA has sponsored provide valuable insight to the public by presenting information on the aquifer in an understandable format for non-scientists. The periodic newsletters, interviews, and podcasts also give the public insight into the current and future direction of the EAA. These programs and the outreach are exemplary, providing information and meaning to aquifer protection.

Effectiveness Measure:

- **Develop metrics that can assess the success of the Education and Outreach Center.**

Effectiveness Measure:

- **Continue the newsletters, social media, podcasts, and YouTube presentations and programs. These programs help promote the goals of the EAA and continue to provide a variety of public outreach and education.**

4.7 CONTINUED IMPLEMENTATION OF THE EDWARDS AQUIFER HABITAT CONSERVATION PLAN AND INCIDENTAL TAKE PERMIT

The EAA has done a remarkable job in implementing the EAHCP and acquiring the Incidental Take Permit with partner cities of San Antonio, New Braunfels, San Marcos, and Texas State University. The initial term of the Incidental Take Permit was 15 years, with an expiration date of 2028. The EAA has been proactive in approaching the renewal by developing a work plan to have the data available for the permit renewal and will be requesting that the permit be issued for a 30-year term. The implementation of the renewal plan was recently approved, and presentations and information will be available to the public. The EAHCP website contains various information and updates on the program, interviews, and publications that provide detailed information on the EAHCP activities.

Effectiveness Measure:

- **Continue to move forward with the preparations to obtain a renewal of the**

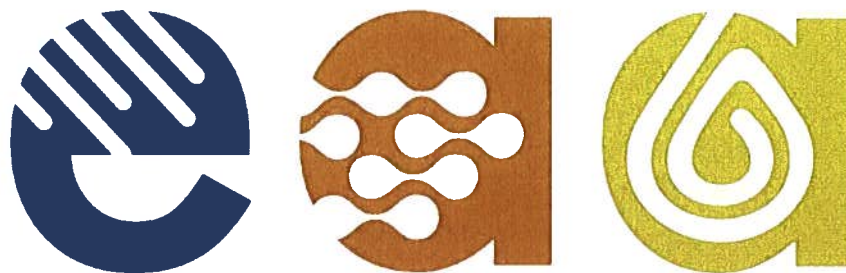
Incidental Take Permit.

Effectiveness Measure:

- **Continue the public outreach and education programs that provide updated information on the program and the progress being made to renew the Incidental Take Permit.**

Effectiveness Measure:

- **Continue to implement the EAHCP and use the adaptive management process to address issues as they arise.**



**EDWARDS AQUIFER
AUTHORITY**

**ACCOMPLISHMENTS
2020-22**

**Prepared for MRB Group for:
The Report on the Effectiveness of the Edwards Aquifer Authority**

**To be submitted by:
The South Central Texas Water Advisory Committee**

INTRODUCTION

The Edwards Aquifer Authority (EAA) is pleased to present this overview of accomplishments for calendar years 2020 through 2022. This report is provided to the South Central Texas Water Advisory Committee (SCTWAC) to assist in its biennial report on the effectiveness of the EAA. These accomplishments, which are tied to the key objectives identified in the EAA's 2021-30 Strategic Plan adopted by the EAA board in May 2021, are intended to depict the more significant achievements of the EAA since SCTWAC's last effectiveness report.

Partnerships for Creative Solutions

We will put into place innovative and incentivized programs to encourage private-public partnerships and to instill buy-in and trust with our stakeholders and regulated community.

These programs will be designed around the purpose of ensuring a secured and protected Edwards Aquifer system.

2020-22 ACCOMPLISHMENTS:

- NBU ASR Demonstration Project – continued to collaborate with New Braunfels Utilities and its consulting specialists to ensure protection of the freshwater portion of the aquifer while also facilitating the demonstration phase of the ASR. If successful, the project has potential to reduce groundwater demand near Comal Springs during times of critical drought.
- Heightened public awareness -- leveraged the occasion of the 25th anniversary of the EAA in 2021 to engage with stakeholders and the general public in new and enhanced ways, including website and social media presence, recurring podcasts, newsletters, presentations before various stakeholder groups, media reports and features, and as the centerpiece to the Texas Water Conservation Association fall conference in San Antonio. We also integrated, wherever strategically advantageous, our communication efforts with fundraising activities of the Edwards Aquifer Conservancy, such as with the Valero Champions for Charity event.
- First Responder Program -- finalized this program aimed at training and equipping first responders with information on sensitive karst features to prevent contamination from hazardous material spillages as a result of fighting fires on the recharge zone. The initiative was funded by a \$218k grant from the Edwards Aquifer Protection Program of the City of San Antonio (COSA) awarded in 2019 and is a collaboration of the EAA, COSA, San Antonio Fire Department and Texas A&M with support from Texas Parks & Wildlife. Highlights of the program include the development of best management practices, a training course for HazMat first responders and a database interface that will put EAA collected data in the hands of first responders to minimize any impacts to the Aquifer from their efforts related to incidents on the recharge zone.
- Camp Bullis Sentinel Landscape (CBSL) – As a member of a consortium of 40+ area organizations, participated in the application for and subsequent designation by the US Department of Defense as a CBSL. The CBSL designation increases the chances of grant

awards by DoD and other federal programs for projects that strengthen military readiness, conserve natural resources, bolster agricultural and forestry economies, and increase climate change resilience with respect to Camp Bullis. By serving on the CBSL's Watershed Conservation and Soil Health & Infiltration Committees, staff hopes to secure grant funding for conservation easements, well plugging, and expansion of land management practices included in the Next Generation concept.

Greater Understanding and Management Through Science

Relying on our scientific research, we will reinforce and solidify our position as the trusted leader in managing, enhancing, and protecting the aquifer.

We will utilize scientific data, combined with lessons learned from experience, to foster public policy that ensures the highest possible water quality and sustainable water quantity.

To this end, we will draw scientists from near and afar to conduct research and collaborate on a myriad of studies to better inform our understanding of the Edwards Aquifer to identify and validate solutions to better manage, enhance, and protect the system.

2020-22 ACCOMPLISHMENTS:

- EAA Next Generation - continued to develop and pursue the EAA Next Generation concepts whereby the EAA working both independently and collaboratively seeks to identify and protect the most environmentally sensitive and economically beneficial lands for multi-generational preservation, protection, and enhancement of Edwards Aquifer recharge with a focus on lands within Comal and Hays counties. Next Generation concepts also include soil restoration and land management practices to further enhance diffuse recharge and water quality, as well as other groundwater-specific conservation measures. Primary funding for Next Generation initiatives is intended to be derived from external sources in partnership with the Edwards Aquifer Conservancy, the EAA's supporting non-profit organization.
- Interinformational Flow (IFF) Study –continued this research effort in tandem with work at the FRP. Extensive work and data collection in the Nueces and Blanco river basins were completed along with assembly of relevant stream gain/loss study results. Ongoing collaborations, including the NBU ASR demonstration project and development of a Blanco River basin hydrogeologic model, will provide a regional perspective. But the focus in the upcoming years will be on the Cibolo Creek, Dry Comal River, and Comal River basins. The FRP is well positioned to support this research because of its Cibolo Creek location, geology, and structural features along the boundary between the Trinity and Edwards aquifers. Study tasks will include data collection to quantify water balances in the system, drilling of new monitoring wells, and inter-aquifer testing.
- Field Research Park (FRP) – Established in December 2019, the 150-acre FRP is currently the focal point for several research projects staffed internally and with external collaborators such as the University of Texas at San Antonio. The research is focused on aquifer sustainability through water quality and quantity protection and enhancement.

- Soil Restoration and Land Management Research –completed Phase I of a soil restoration and land management demonstration and research site at the FRP. The work is focused on restoration of soil health and water holding capacity through improved management of the land surface. The long-term goal of which is to have positive impacts on diffuse recharge to the system as well as improved quality of surface water runoff. Staff are in the initial phase of data collection to support research that quantifies the benefits of these practices over the next five to seven years.
- Elevated science profile – identified key tools for further development, including a model for assessing recharge value of properties based on site-specific hydrogeology and associated factors. Additionally, we have begun developing an approach to assessing the impacts of climate change to the aquifer, specifically as it relates to the renewal of the habitat conservation plan. Undergirding these efforts, was the continued advancement of an integrated data sharing management plan for making scientific data more accessible internally and externally.

Expanded and Diversified Funding

Through collaborative and innovative relationships, we will expand and diversify our funding sources to build shared value without burdening permit holders.

We will be active stewards of our financial resources, continually seeking collaborative partners to help offset aquifer management fee revenues as our primary funding source.

Critical to this effort is the Edwards Aquifer Conservancy (EAC), which will be robust and sustainable, raising enough funds each year to achieve operational status independent of the EAA budget.

2020-22 ACCOMPLISHMENTS:

- Creative solutions – engaged with new partners to enhance financial resources to fund opportunities for aquifer sustainability under the Next Generation umbrella of concepts, including two sizable corporate gifts for: 1) expansion of conservation/land management practices on the recharge zone and 2) a groundwater trust program; and the acceptance into the Quantified Ventures “Texas Outcomes-based Finance Challenge,” providing EAA access to free consultation to identify and implement alternative funding strategies in support of aquifer sustainability initiatives under Next Generation. These approaches also include ongoing discussions and evaluations of potential conservation properties in Comal and Hays counties. Internally, we opted to competitively bid our employee healthcare coverage ahead of schedule in a strategic move to leverage our experience and buying power to achieve greater value for staff and the EAA as a whole, resulting in approximately \$300k in savings for 2022.
- AMF Sustainability – continued to sustain programs (HCP and general EAA) without need for increased aquifer management fee rate for ninth consecutive year.

Assuredness in Regulatory Programming

Wherever possible, we will work toward permanence in core programs to further assurance and reliability in the economic, environmental, and regulatory optimization and general conservation of the aquifer system.

This includes securing a long-term incidental take permit issued by the U.S. Fish & Wildlife Service that balances certainty and flexibility for the aquifer-dependent endangered and threatened species for the next 30 years.

2020-22 ACCOMPLISHMENTS:

- Groundwater withdrawal management - Maintained compliance with pumping limitations for years 2020 and 2021.

Year	Permitted (acre-feet)	CPM Authorization (acre-feet)	Pumped (acre-feet)	Un-Pumped (acre-feet)	Over- Pumped (acre-feet)	Over-Pumped (% of CPM Authorization)
2020	571,600	541,805	342,457	199,348	1,583	0.29%
2021	571,600	544,366	306,608	237,758	1,369	0.25%

- Edwards Aquifer Habitat Conservation Plan (EAHCP) - Initiated the EAHCP permit renewal process through selection of a program consultant to guide the permit renewal process and formally presented the workplan from 2022-2028 (permit renewal timeline) to the EAA Board of Directors.
- Recharge Dam Permitting Updates – Continued engagement with TCEQ regarding revisions to recharge dam diversion permits. Achieved approval of one permit and currently in process of attempting to negotiate a settlement to protest related to the other three. If negotiations are unsuccessful, will go to contested case hearing with a recommendation from the TCEQ Executive Director to approve all three.
- Abandoned Well Program – continue to use risk-based assessment and prioritization approach to targeting abandoned wells for closure. This approach utilizes GIS technology along with a criteria of risk factors such as conditions of the well, geology, surrounding development, etc.

Greater Influence Through Inclusion

We will become a more inclusive organization such that the EAA becomes a model for collaboration, transparency, and accessibility.

This means we will invite and partner with others when and where our mission intersects with various segments of our community.

We will be user friendly, including developing fully integrated centralized information systems that will make vital data easily accessible for all of our employees, our permit holders, our stakeholders, our partners, and the public at large.

2020-22 ACCOMPLISHMENTS:

- Internships and Education Partnerships – continued to refine and expand footprint of the EAA’s internship and education-based partnerships, including the Sam Houston High School intern initiative, the CAST Tech partnership that will eventually introduce students at neighboring SAISD technology magnate school to EAA workplace technical expertise and data opportunities for hands-on learning. Also maintained partnership with the Alamo Community Colleges through work study placement program across all areas of the EAA.
- Education Outreach Center (EOC) – celebrated the grand opening of the EOC in April 2022. Through a partnership with the Ultra-Accessible™ Morgan’s Wonderland Camp, the EOC provides a platform for elevating the profile, outreach, and impact of the EAA mission.
- COVID-19 Response – employed expanded technological resources and organizational flexibility to provide EAA board and staff with the tools necessary to maintain safe work environments while continuing the effective implementation of all aspects of the EAA’s mission.