



Pre-Meeting, Medina Lake Pictures



Save Medina Lake *Annual Public Meeting*

October 17, 2026

OUR VISION

***Medina Lake is
conserved
for the Benefit and
Enjoyment of all
Stakeholders***



AGENDA

Introduction	5 min
Medina Lake & BMA's Management	25
Government/Legislative Affairs	25
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Questions	15



WHO IS SAVE MEDINA LAKE?

- **13 years ago**, a group of concerned citizens formed the Save Medina Lake committee (SML). Our fundamental question was:

Why was Medina Lake drained essentially dry from 2009 to 2012, while similar Central Texas lakes were not?

After 13 years, we now know WHY Medina Lake continues to be drained dry, and WE HAVE A SOLUTION!

- Today SML has > 21,000 followers on Facebook and Instagram and receives over 200,000 views on many of our posts. We have gathered over 13,500 signatures on two petitions supporting our efforts.
- We are a research and data driven organization working closely with USGS and other key organizations.
- SML is a non-profit 501(C)(4) organization. There are no paid employees.



SAVE MEDINA LAKE TEAM MEMBERS

Mike Crandall

Sylvia Lawson

Andrea Cramer

Rachel Mulherin

Henning Eilert-Olsen

Michelle Reichle

Casey Fox

Mike Sarosdy

Kip Gary

Sarah Voss

Phyllis LaLonde

People providing key support to SML's team –

Geren Anderson, Bill McBain, Shirlee Crandall,
Anne-Vi Eilert-Olsen, Dave Lawson, Mike
Mulherin, Travis Reich, Dawn Volesky



Medina Lake & BMA Management



A brief history of Medina Lake

- **1912:** Medina Lake System completed for ~\$6 million, funded primarily by British investors.
- **1925: BMA** created to manage the Medina Lake project.
- **1950:** After decades of financial struggles and bankruptcy, the system's assets were sold to **BMA** for \$10.
- **1979:** BMA converted to a Water Control and Improvement District under the Texas Constitution.

THE BMA PERMIT ISSUED BY TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)

66,750 AF/year — BMA's total authorized diversion

- **45,856 AF** — Agriculture
- **20,144 AF** — Municipal, including **19,974 AF for BexarMet/SAWS**
- **750 AF** — Domestic & livestock

Up to 33,000 acres authorized for irrigation

Senior Water Right — One of the oldest water permits in Texas, making it **difficult to challenge**

BMA & TCEQ control the permit — They are the parties governing permitted water use, including releases from Medina Lake

The TCEQ permit is fundamental on how Medina Lake water can be released and used.

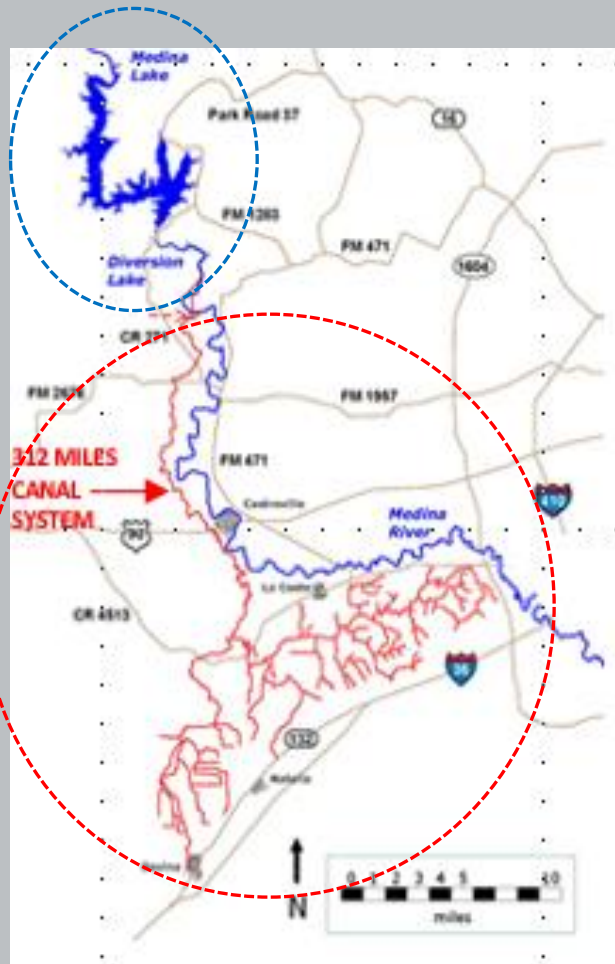


PROBLEM STATEMENT:

BMA wastes 75% of the water it drains from Medina Lake in its delivery. This has caused Medina Lake to go essentially dry twice within 10 years (2012 & 2022).



THE MAIN ISSUE IS BMA'S WATER DISTRIBUTION SYSTEM/CANAL SYSTEM



312 miles of mostly dirt-lined canals — the system must be filled to deliver water, regardless of how few customers order water

Only 10–15% of land owners buy water — approximately 300–500 of 3,200 properties

~75% of released water is lost through seepage and evaporation

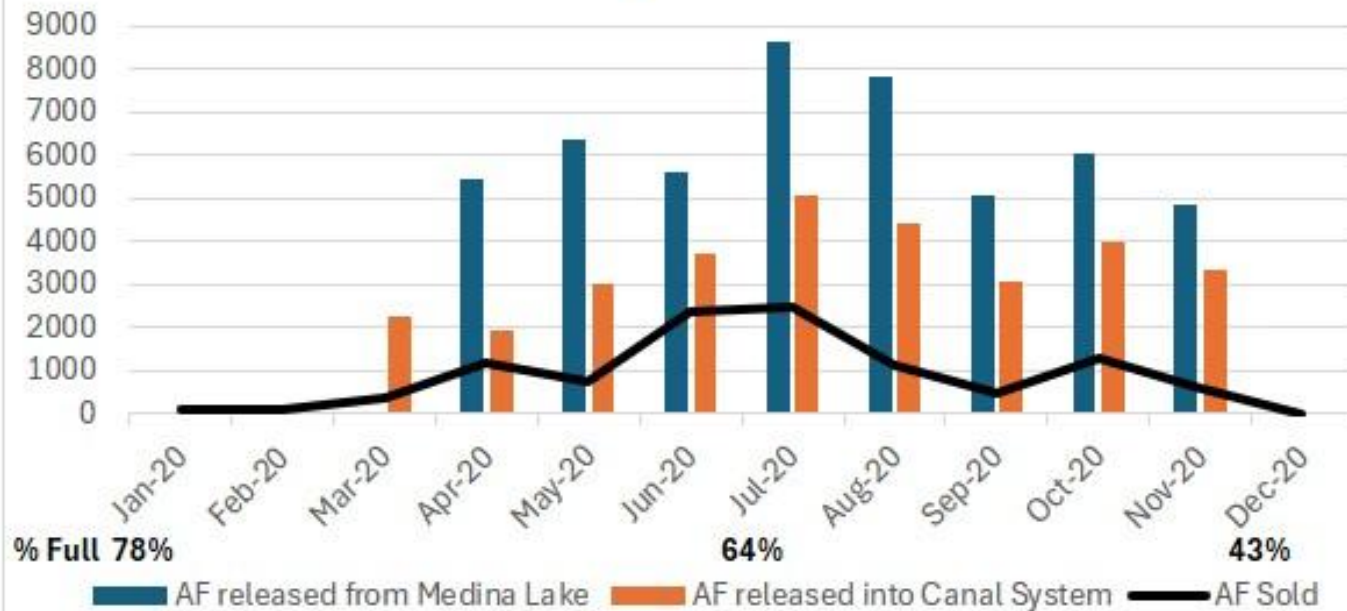
110-year-old infrastructure makes the current delivery system highly inefficient

In this era, why is this precious resource in Texas being wasted?



2020. ONLY 22% OF WATER RELEASED FROM MEDINA LAKE WAS ACTUALLY SOLD

AF released from Medina Lake vs. AF released into Canal System vs. AF Sold



~50,000 AF of water was released from Medina Lake to only sell 10,800 AF.

- In September >5000 AF was released from Medina Lake, **only 482 AF was sold, 9%**
- In November >4800 AF was released, **only 582 AF was sold, 12%**

~49,952 AF released from Medina Lake vs. 30,891 AF released into Canal vs. 10,800 AF sold



OVER 50% DROP IN WATER SALES, PROPERTIES, AND OWNERS SINCE 2009

**SAVE
MEDINA LAKE
(SML) HAS
ANALYZED
BMA'S
*WATER SALES
INVOICES
FOR 2009 &
2017.**

Analysis	2009 Water Sales Analysis	% Change from 2009 to 2017	2017 Water Sales Analysis
Total number of Sales Invoices	2200	-55%	986
Total number of Properties	796	-53%	378
Total number of Property Owners	700	-52%	335
Total number of acres	14,786	-38%	9,188
Total amount of water purchased AF	15,717	-53%	7,363
Total amount of water purchased \$	\$307,874	-14%	\$265,946

*House Bill 872 was passed into law in 2021 therefore BMA will no longer provide extracts of their water sales.



BASED ON BMA'S FINANCIAL STATEMENTS, WATER SALES HAVE DECLINED FURTHER

Year	~AF Released from Medina Lake <i>Mass Balance Calculated</i>	AF Sold
2018	25,203	7,568
2019	29,035	7,749
2020	49,952	10,998
2021	30,859	6,787
2022	22,007	6,115
2023	0	0 AF sold due to a dry Medina Lake
2024	0	0 AF sold due to a dry Medina Lake
2025	0	0 AF sold due to a dry Medina Lake
2026	0	0 AF sold to date due to a low Medina Lake



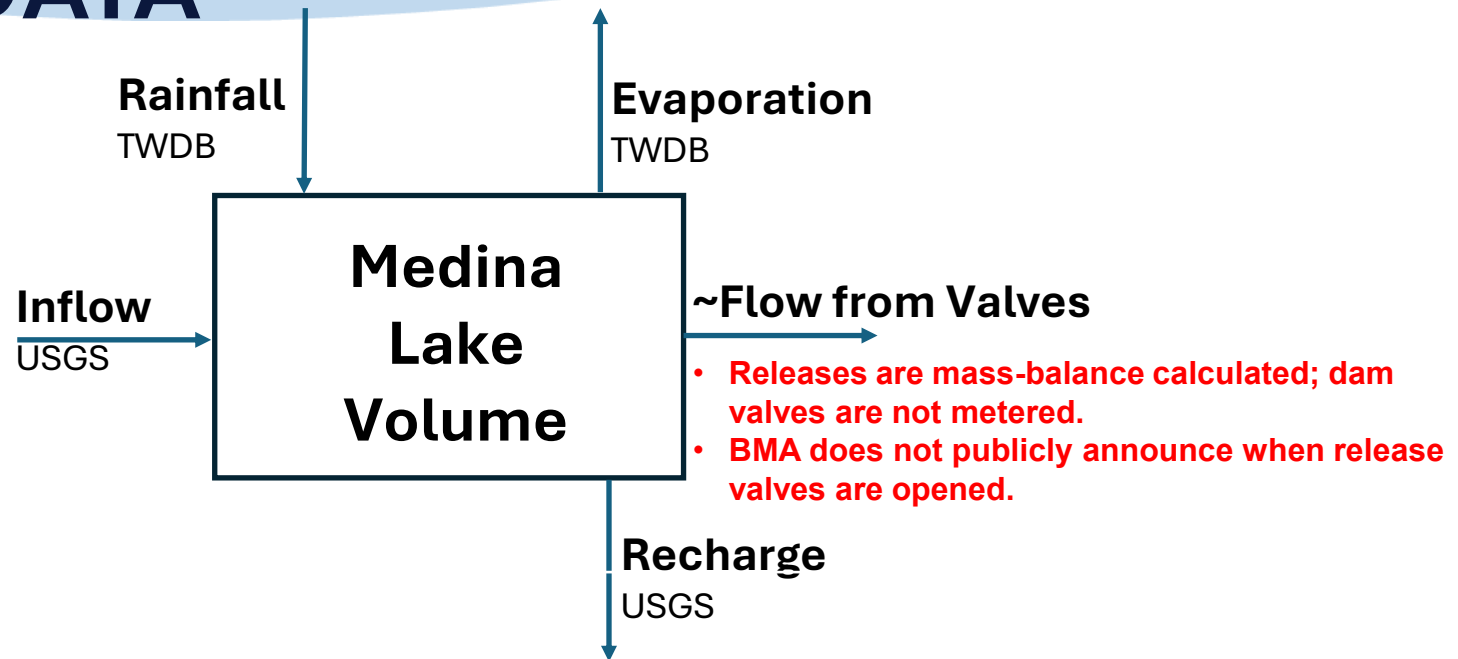
What would Medina Lake look like TODAY

If

BMA didn't intentionally drain
the lake dry?



TO ANSWER THIS QUESTION SML DEVELOPED A MODEL BASED ON *USGS & TWDB DATA

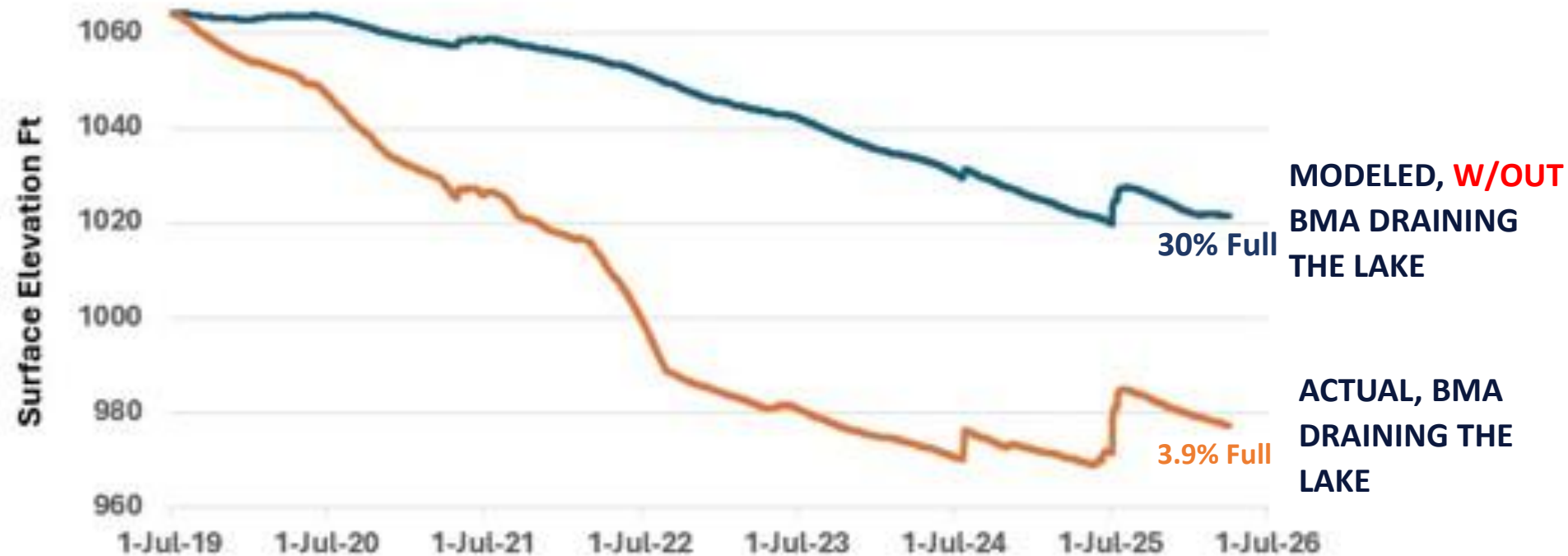


$$\begin{aligned} \text{Medina Lake Volume change} = & \text{Inflow} + \text{Rainfall} \\ & - \text{Evaporation} - \text{Recharge} \\ & - \text{Flow from Valves} \end{aligned}$$



FROM THE MODEL, MEDINA LAKE WOULD BE

- **Down just 42 feet** (1022' surface elevation) **on May 1, 2026**
- **Instead, it was down 87 feet** (977' surface elevation).



- **After the July 2026 Flood, the lake would have been at 50% full**
- **ADDITIONAL 110,000 AF would have recharged the Edwards and Upper Trinity Aquifers**



BMA IS HEAVILY SUBSIDIZED BY SAWS

- **2007:** BMA and BexarMet entered a **40-year agreement** for up to **19,974 AF/year**; earlier agreements date to 1991.
- **2012:** SAWS inherited the agreement when BexarMet was dissolved.
- SAWS provides ~70–75% of BMA's annual revenue.
- **Through 2049: SAWS has ~\$150 million remaining in contract payments**
- **SAWS has taken no water since *2013** due to poor water quality and an unreliable supply while continuing contractual payments.

*SAWS took water for only 1 month. in 2015. They stopped taking water after 1 month due to poor water quality. The water treatment plant in Von Ormy has been shutdown



BEXARMET AND SAWS PAYMENT SCHEDULE FOR BMA CONTRACT.

ESTIMATED 2026 – 2049

ACTUAL 1995 – 2025

BexarMet Income ACTUAL	1995-2012	\$12,334,448
SAWS Income ACTUAL		
	2013	\$2,496,750
	2014	\$2,496,750
	2015	\$2,596,620
	2016	\$2,696,490
	2017	\$2,836,308
	2018	\$2,896,230
	2019	\$2,936,178
	2020	\$3,016,076
	2021	\$3,016,074
	2022	\$3,135,918
	2023	\$3,295,710
	2024	\$3,758,747
	2025	\$3,946,411
SAWS INCOME ACTUAL TOTAL		
2013 - 2025		\$39,124,262

SAWS Income ESTIMATED @ 3.82% increase/year		
	2026	\$4,097,164
	2027	\$4,253,676
	2028	\$4,416,166
	2029	\$4,584,864
	2030	\$4,760,005
	2031	\$4,941,837
	2032	\$5,130,616
	2033	\$5,326,605
	2034	\$5,530,082
	2035	\$5,741,331
	2036	\$5,960,649
	2037	\$6,188,346
	2038	\$6,424,741
	2039	\$6,670,166
	2040	\$6,924,967
	2041	\$7,189,500
	2042	\$7,464,139
	2043	\$7,749,269
	2044	\$8,045,291
	2045	\$8,352,622
	2046	\$8,671,692
	2047	\$9,002,950
	2048	\$9,346,863
	2049	\$9,703,913
Remaining for SAWS 2026 - 2049		\$156,477,454
Total for SAWS only		\$195,601,716
Total for BexarMet + SAWS		\$207,936,164

SML has an Open Public Records Request into SAWS to confirm the Estimated.



- CAGR at 3.82% is the most reasonable basis for future GBRA given its historical variability.

BMA'S 2025 FINANCIAL STATEMENT, REVENUE SECTION

BEXAR-MEDINA-ATASCOSA COUNTIES WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1

Management's Discussion and Analysis
December 31, 2025

The District's net position increased during the current year. The increase is attributable to activities as shown in the following table:

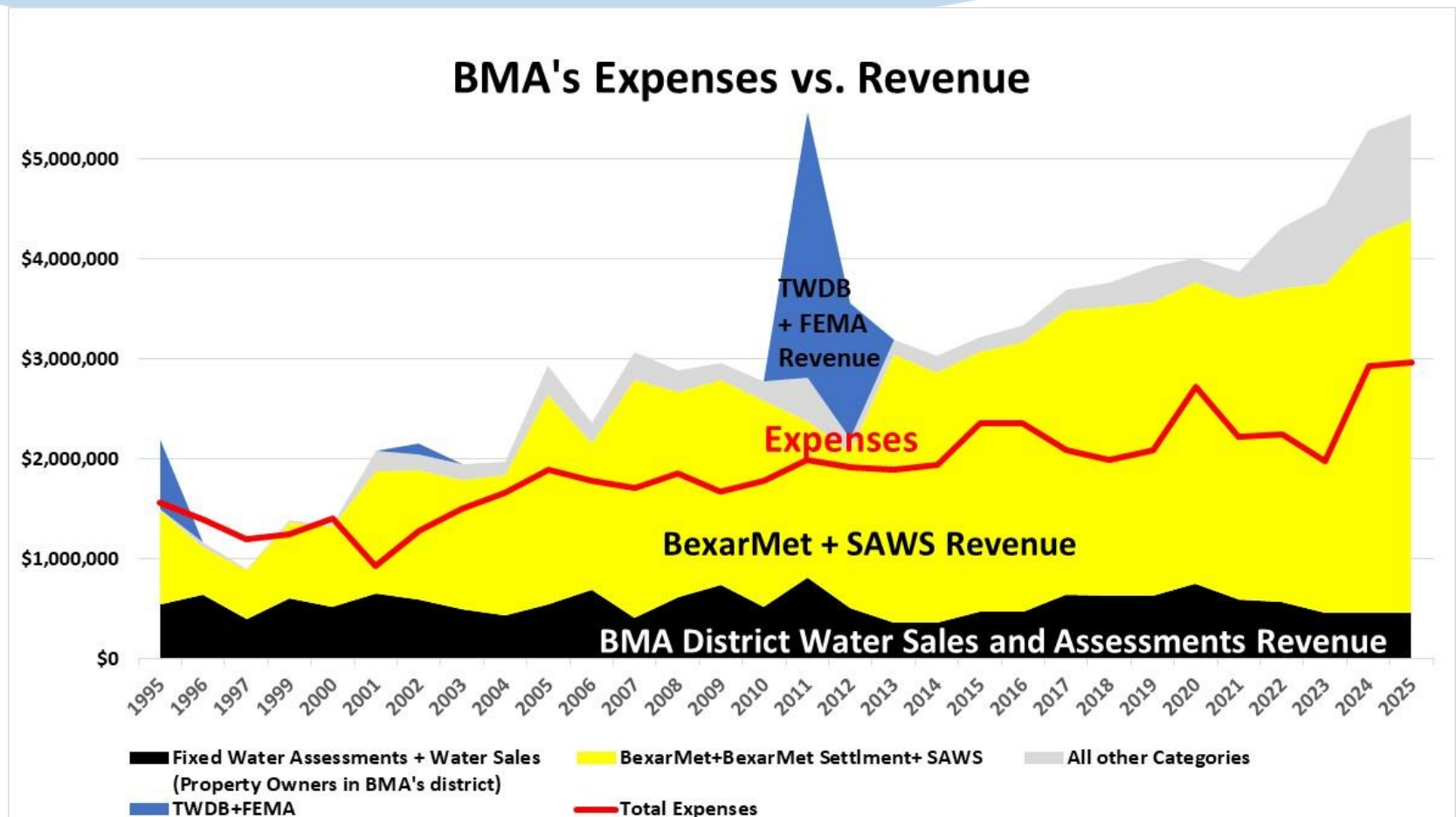
	<u>2024</u>	<u>2025</u>	<u>Increase (Decrease)</u>
Revenue			
Municipal water sales	\$ 3,758,747	\$ 3,946,411	\$ 187,664
Fixed water assessments	449,176	447,957	(1,219)
Irrigation water sales	-	-	-
Investment earnings	669,212	601,640	(67,572)
Other	406,291	443,703	37,412
Total revenue	<u>5,283,426</u>	<u>5,439,711</u>	<u>156,285</u>

In 2025 73% of all BMA's revenue came from SAWS (red box) despite the fact that SAWS has NOT taken water since 2013.

- In 2025, all property owners (3213) in BMA's district paid \$447,957 (blue box) for the right (Fixed Water Assessments) to purchase water.
- With Medina Lake effectively dry for almost four years, BMA has not delivered any water since September 1, 2022.

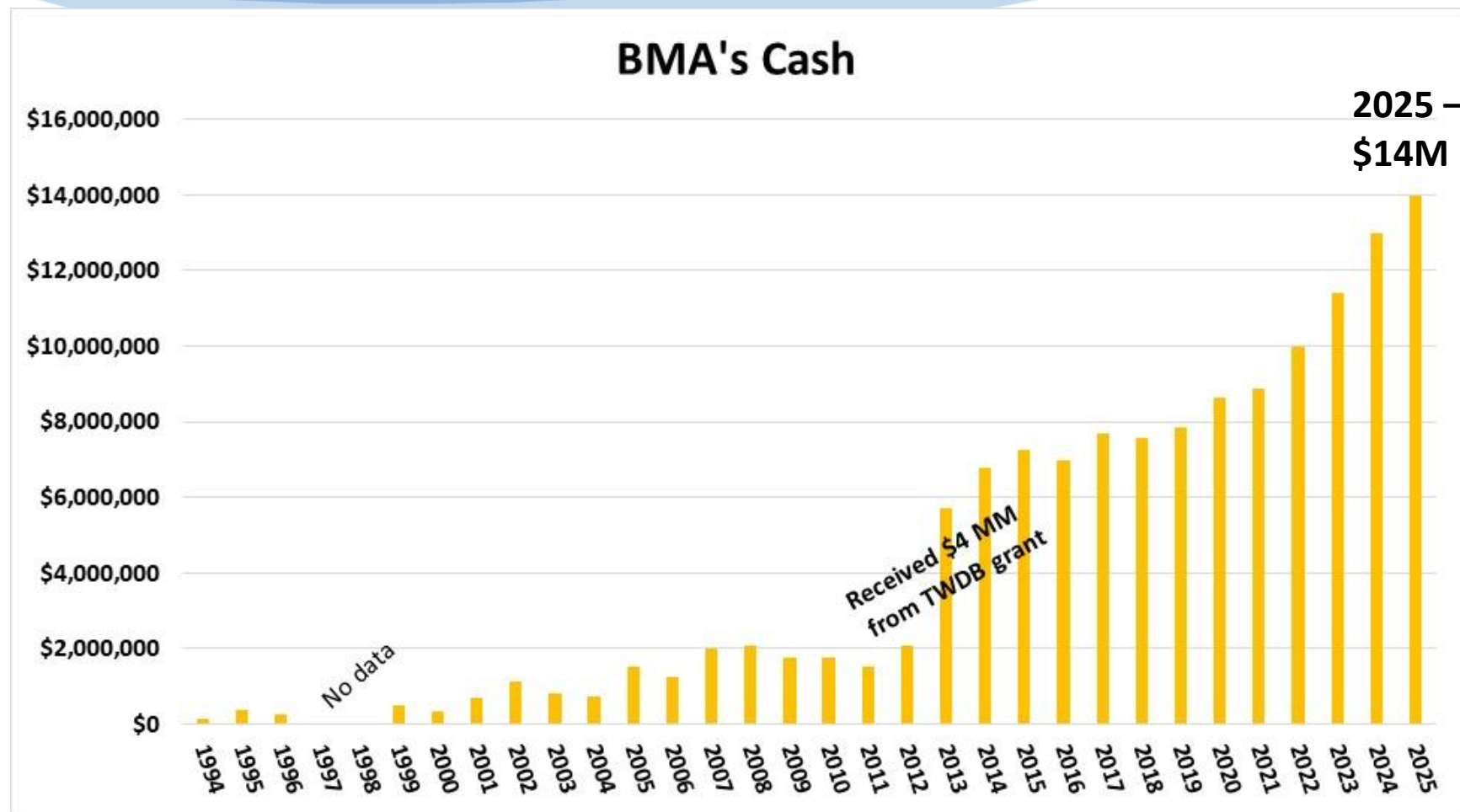


WITHOUT SAWS SUBSIDY FUNDING, BMA'S WATER SALES AND ASSESSMENTS DO NOT COME CLOSE TO COVERING OPERATING EXPENSES.



Revenue from BMA's District Property Owners (Water Sales and Assessments Revenue) has changed very little since 1995.

AS BMA RECEIVES MONEY FROM SAWS EACH YEAR, THEIR CASH IN THE BANK CONTINUES TO GROW



BMA's cash increased \$2.7MM from 2012 to 2013. This is the same timing in which they received 2 TWDB grants - \$2.7MM in 2011, \$1.3MM in 2012.

BMA'S 2025 FINANCIAL STATEMENT, NET POSITION

BEXAR-MEDINA-ATASCOSA COUNTIES WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1

Statement of Net Position
December 31, 2025

Assets	
Cash & Cash Equivalents	\$ 13,985,477
Receivables:	
Fixed water assessments - net	181,738
Other	153,472
Inventory	69,742
Prepaid expenses	118,018
Net pension asset	273,740
Lease asset	334,083
Capital assets	23,210,617
Total assets	<u>38,326,887</u>

**On December 31, 2025 BMA had \$13.9M in the bank.
Estimate \$15M for 2026.**

THE SOLUTION

Replace Medina Lake's surface water with groundwater pumped from new wells located closer to Irrigators.

The Benefits – Reliable water for farmers, increased aquifer recharge, improved downstream flows, and a more stable Medina Lake. *Michelle Reichle will review in detail later in the presentation*



POTENTIAL FUNDING

San Antonio Water System. Currently has ~\$150 million remaining to pay BMA (through Dec 31, 2049).

Existing BMA funds. BMA currently has \$14M cash in the bank. Estimate this to be \$15M by year end.

State of Texas - Texas Water Development Board or other programs



Government / Legislative Affairs

Relationship Building



UPDATE: SAN ANTONIO WATER SYSTEMS LAWSUIT WITH BMA

June 2023

SAWS sues BMA



Feb. 2025

BMA wins mandamus



June 2025

Trial court dismisses SAWS claims



July 2025

SAWS appeals

July 8, 2026

BMA WINS APPEAL

Fourth Court of Appeals affirms
dismissal



Sept. 2026

SAWS DOES NOT APPEAL TO
TEXAS SUPREME COURT

**SAWS will continue paying the
remaining contract balance -
~\$150MM – 2049. Receives no
water in return.**

The litigation appears to be over, but the underlying problem is not. BMA and SAWS now need to come to the table to develop a long-term solution.



EDWARDS AQUIFER AUTHORITY (EAA)

SML met with EAA senior leadership to discuss the proposed solution.

Path Forward: EAA identified **no fundamental impediment** to replacing Medina Lake surface water with Edwards groundwater, provided required permits and water rights are secured.

EAA Can Facilitate: EAA could help connect well owners with available **Edwards water-right holders** and explain the permitting process.

Legislative Support: EAA offered to **explain its processes to legislators and stakeholders** as the proposal is evaluated.

Common Ground: Broad agreement that using Medina Lake's limited surface water for irrigation **does not make sense under recurring drought conditions. NO ONE BENEFITS FROM REPEATEDLY DRAINING MEDINA LAKE!**

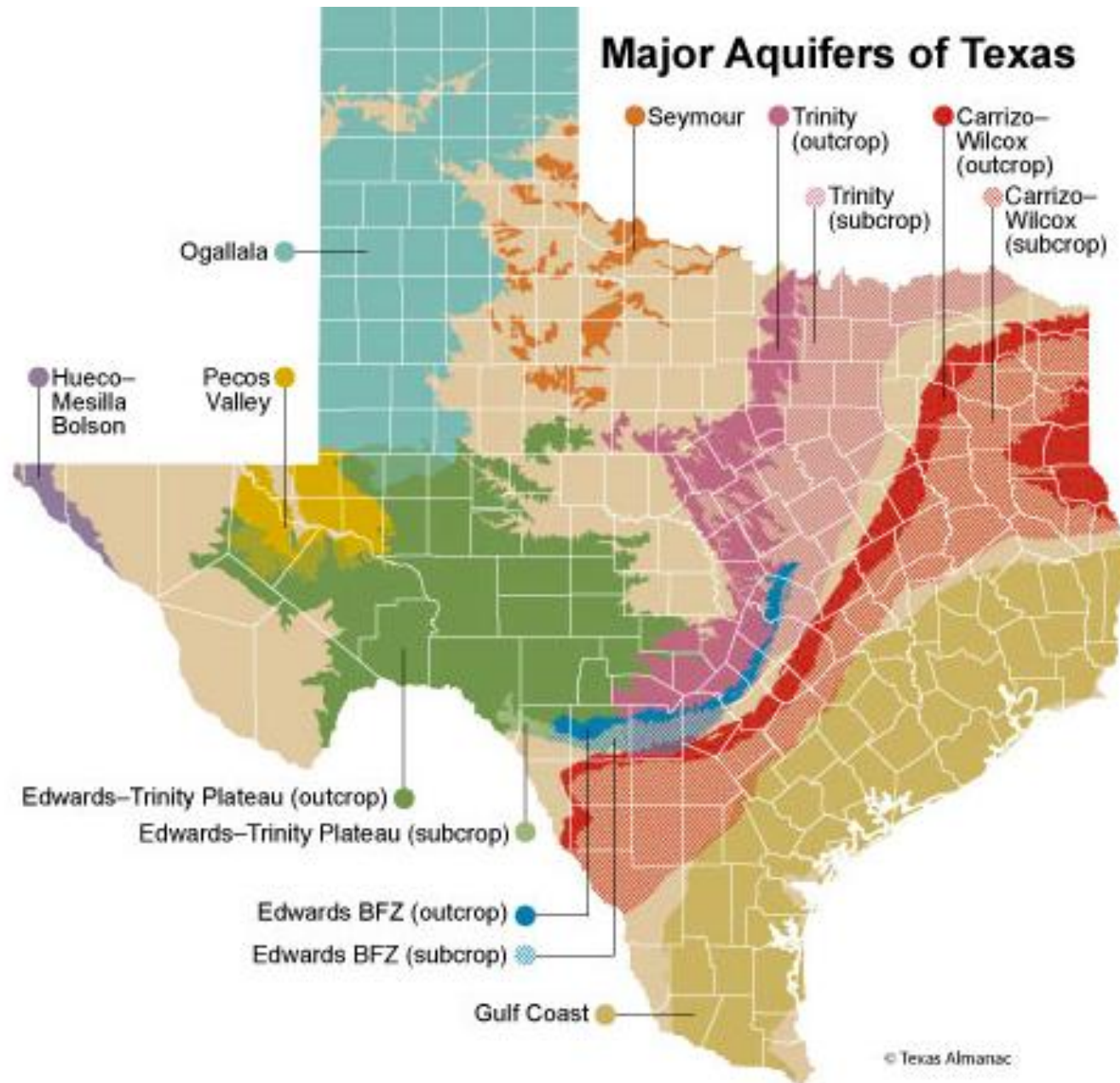


USGS STUDY 2017-2022, SUPPORTED BY SAWS AND EAA

- Met with Allen Clark, Hydrologist US Geological Survey & Namjeong, Ph.D Hydrologist US Geological Survey
- Multiple USGS studies have shown recharge into Edwards and Upper Trinity Aquifers
- Purpose of this study was to detail recharge relative to the lake level—they could not have chosen a better period to do that.
- This is why our proposal will work, pass muster, and is the best path forward.



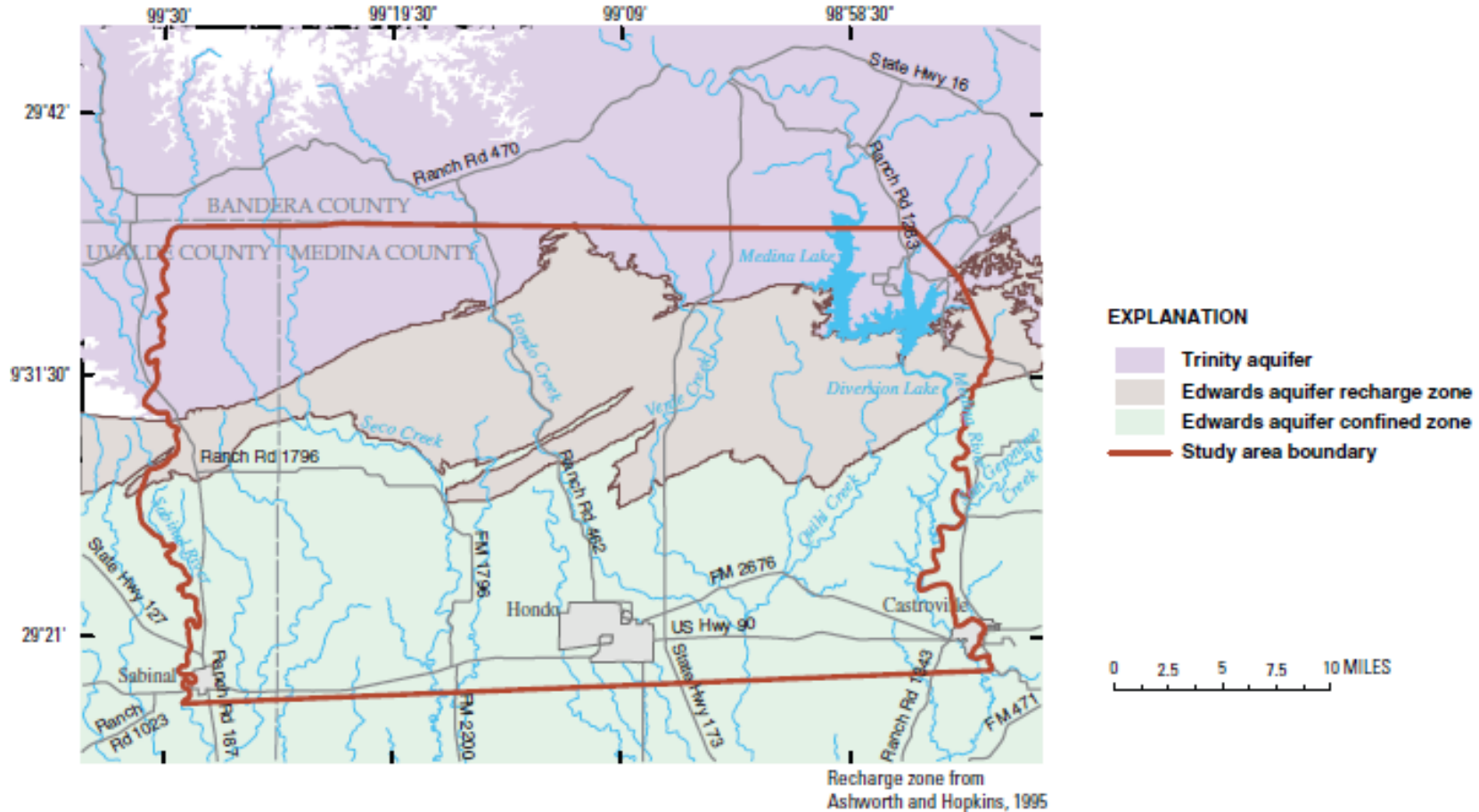
Major Aquifers of Texas



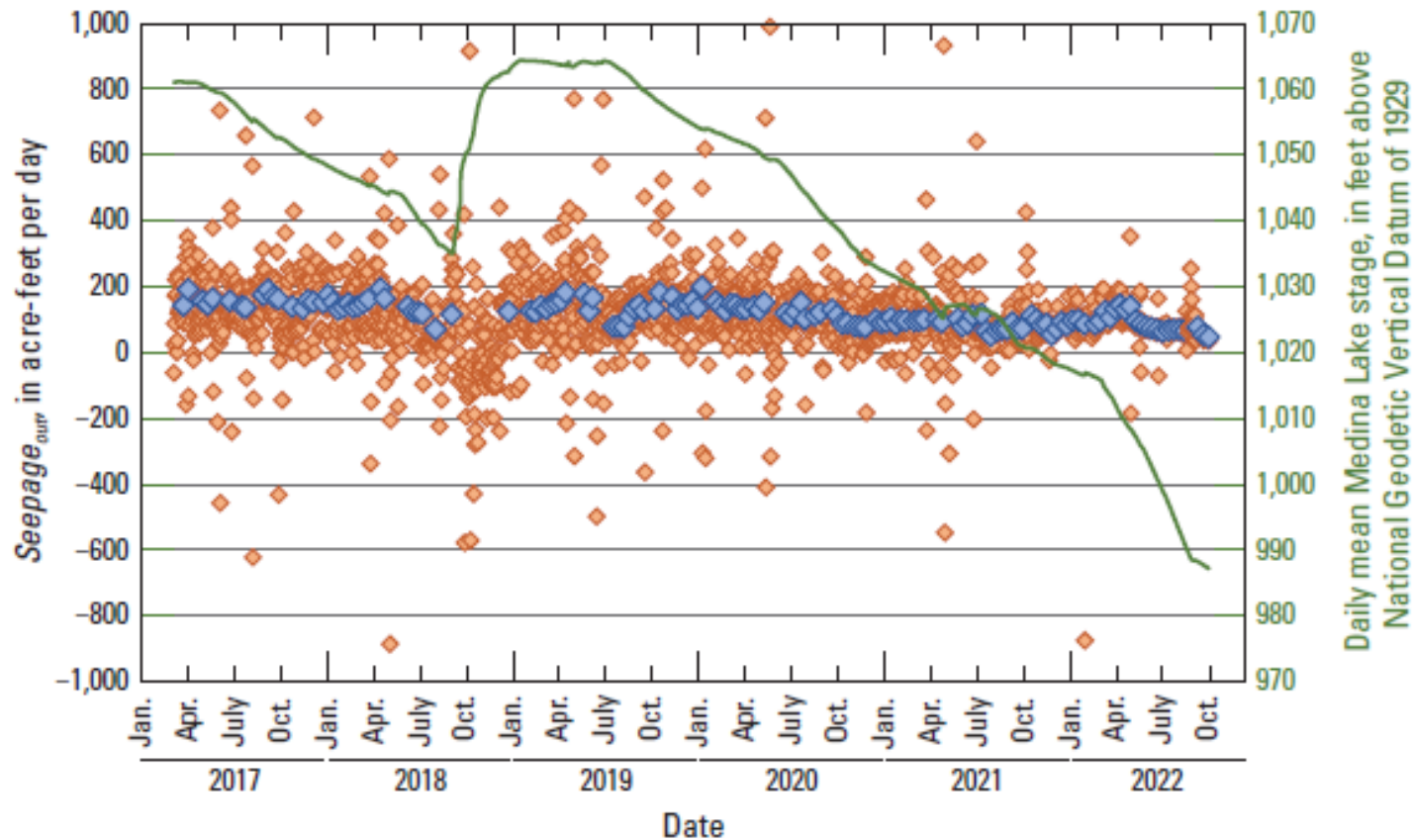
© Texas Almanac



FLOW PATHS IN EDWARDS AQUIFER, NORTHERN MEDINA, AND NORTHEASTERN UVALDE COUNTIES



USGS STUDY – AQUIFER RECHARGE RELATIVE TO LAKE LEVEL

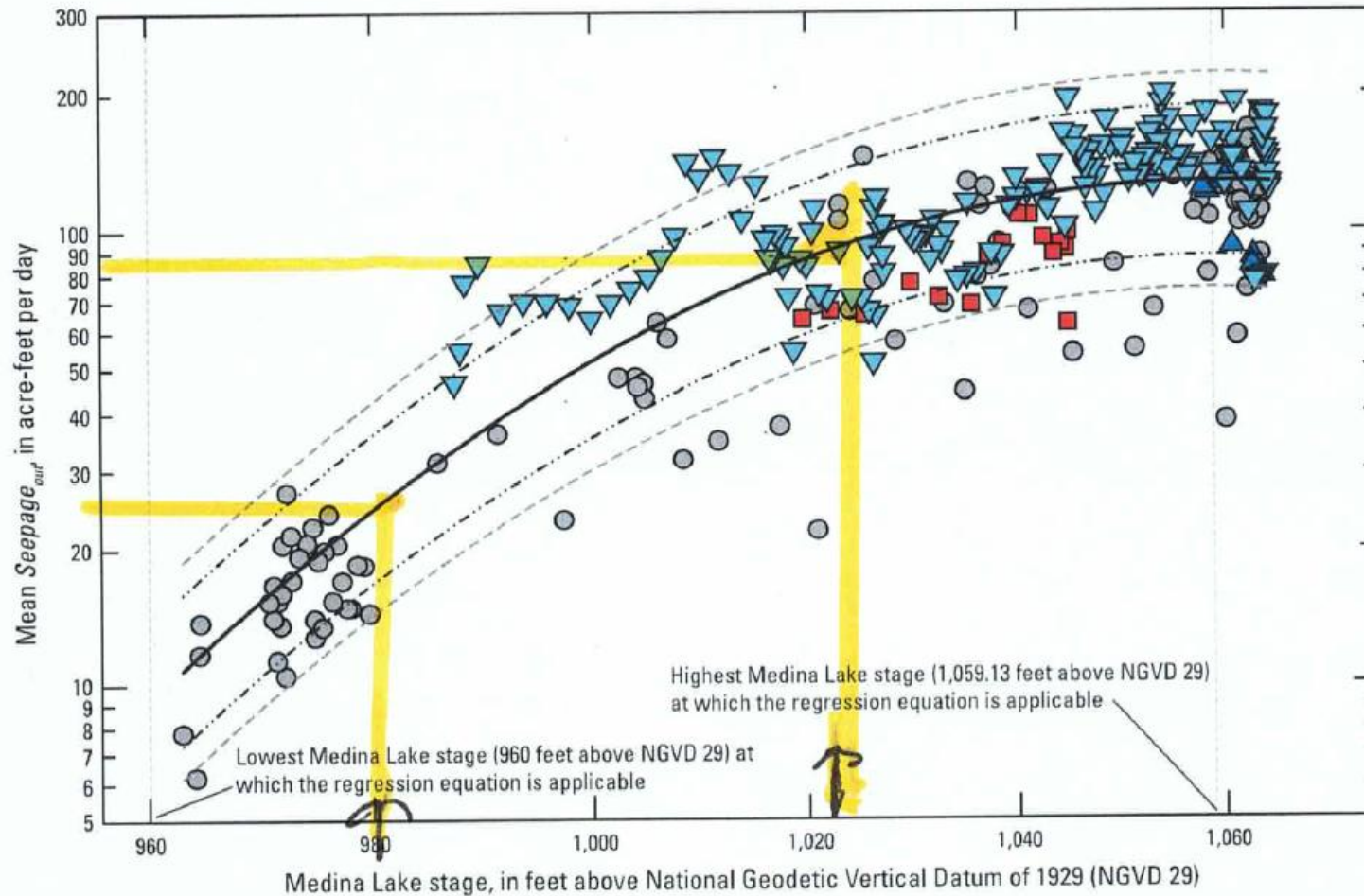


EXPLANATION

- Medina Lake stage
- ◇ Daily Seepage_{out}
- ◇ Mean Seepage_{out} computed for selected water-budget periods¹



USGS STUDY – AQUIFER RECHARGE RELATIVE TO LAKE LEVEL



- Mean $Seepage_{out}$ in acre-feet per day, for various water-budget periods during 1955–64
- Mean $Seepage_{out}$ in acre-feet per day, for various water-budget periods during 1995–96
- ▲ Mean $Seepage_{out}$ in acre-feet per day, for various water-budget periods during 2001–02
- ▼ Mean $Seepage_{out}$ in acre-feet per day, for various water-budget periods during 2017–22



USGS STUDY. KEY TAKE-AWAYS FROM THE STUDY, PUBLISHED 2024

- Studied how water from Medina Lake seeps into underground aquifers
- Used a water-budget method (basically: water in vs. water out).
- Seepage mainly recharges:
 - Edwards Aquifer
 - Upper zone of the Trinity Aquifer
- **Groundwater recharge ranged from:**
 - ~6 to 200 AF/day, average of 50,000 Acre Feet / year
 - Recharge depends heavily on lake water level (stage).
- **More water seeps into aquifers when lake levels are higher**
- When not drained, Medina Lake typically provides **~10% of Edwards Aquifer recharge**; recharge has been minimal for roughly **7 years**.



WE HAVE ALSO MET WITH

***BANDERA COUNTY RIVER
AUTHORITY AND GROUNDWATER
DISTRICT***

**AND PLAN TO MEET IN THE
NEAR FUTURE**

***MEDINA COUNTY
GROUNDWATER DISTRICT***

SAN ANTONIO RIVER AUTHORITY

BMA



SENATOR FLORES, REPRESENTATIVE VIRDELL, REPRESENTATIVE MCLAUGHLIN

SML discussed the following with each Legislator –

Problem: Medina Lake has proven unreliable for irrigation—water delivered only **~50% of the time** over the past 14 years.

Inefficiency/Wasteful: BMA's **312-mile, mostly earthen canal system** loses an estimated **75 %** of released water.



SENATOR FLORES, REPRESENTATIVE VIRDELL, REPRESENTATIVE MCLAUGHLIN

Financial: BMA is being heavily subsidized by the SAWS contract - \$150MM remaining through 2049. This is 75% of BMA's yearly revenue. SAWS is getting nothing in return.

Recharge: Medina Lake can provide **40,000+ AF/year** of aquifer recharge when at least half full.

Solution: Replace surface-water irrigation releases from Medina Lake with **groundwater wells closer to farmers.**



SENATOR FLORES, REPRESENTATIVE VIRDELL, REPRESENTATIVE MCLAUGHLIN

Benefits:

- **Reliable Water for Farmers.** Edwards Aquifer groundwater provides a dependable, firm-yield supply.
- **Increase Aquifer Recharge.** Preserve and increase recharge to the **Edwards and Upper Trinity Aquifers.**
- **Restore River Flow.** Increase Medina River flows below Diversion Dam, benefiting **ecology, recreation, and communities.**
- **Stabilize Medina Lake.** Limit releases primarily to flood conditions, supporting **property values, recreation, residents, and local businesses.**

Next Step: There was broad agreement to bring **BMA, SAWS, EAA, legislators, and other stakeholders together to work on this problem.**



CALL TO ACTION: HELP BRING SAWS, BMA & MEDINA LAKE STAKEHOLDERS TO THE TABLE

Write your state legislators in Bexar, Medina, Atascosa & Bandera Counties

Ask them to bring SAWS, BMA and Medina Lake stakeholders to the table to develop a permanent solution.

Write a personal letter explaining why ending the repeated draining of Medina Lake is important to you.

Tell your story. Share how the repeated draining of Medina Lake impacts you, your property, your community, or the region.

Ask for action. Encourage your legislators to help bring the parties together and work toward a long-term solution.

Your Voice Matters - Help Us Find a Permanent Solution for Medina Lake



CALL TO ACTION: SENATORS & HOUSE REPRESENTATIVES

County	Senator	House Representative
Atascosa	Pete Flores	Don McLaughlin, Jr.
Bandera	Pete Flores	Wes Virdell
Bexar	Roland Gutierrez Judith Zaffirini Donna Campbell Jose Menendez	Trey Martinez Fischer Marc Lahood Philip Cortez Mark Dorazio John Lujan Diego Bernal Elizabeth Campos Josey Garcia Barbara Gervin-Hawkins Ray Lopez
Medina	Pete Flores	Wes Virdell



QR CODE FOR LEGISLATOR'S ADDRESSES

SCAN HERE





Camp Bullis Sentinel Project &

Medina Lake wells

Corrinne Kotara, USGS

Potentiometric study of the Edwards and Trinity aquifers within the boundaries of the Camp Bullis Sentinel Landscape area in parts of Bandera, Bexar, Blanco, Comal, Kendall, and Medina Counties, Texas

Allan K. Clark

USGS, Oklahoma-Texas Water Science Center

San Antonio, Texas

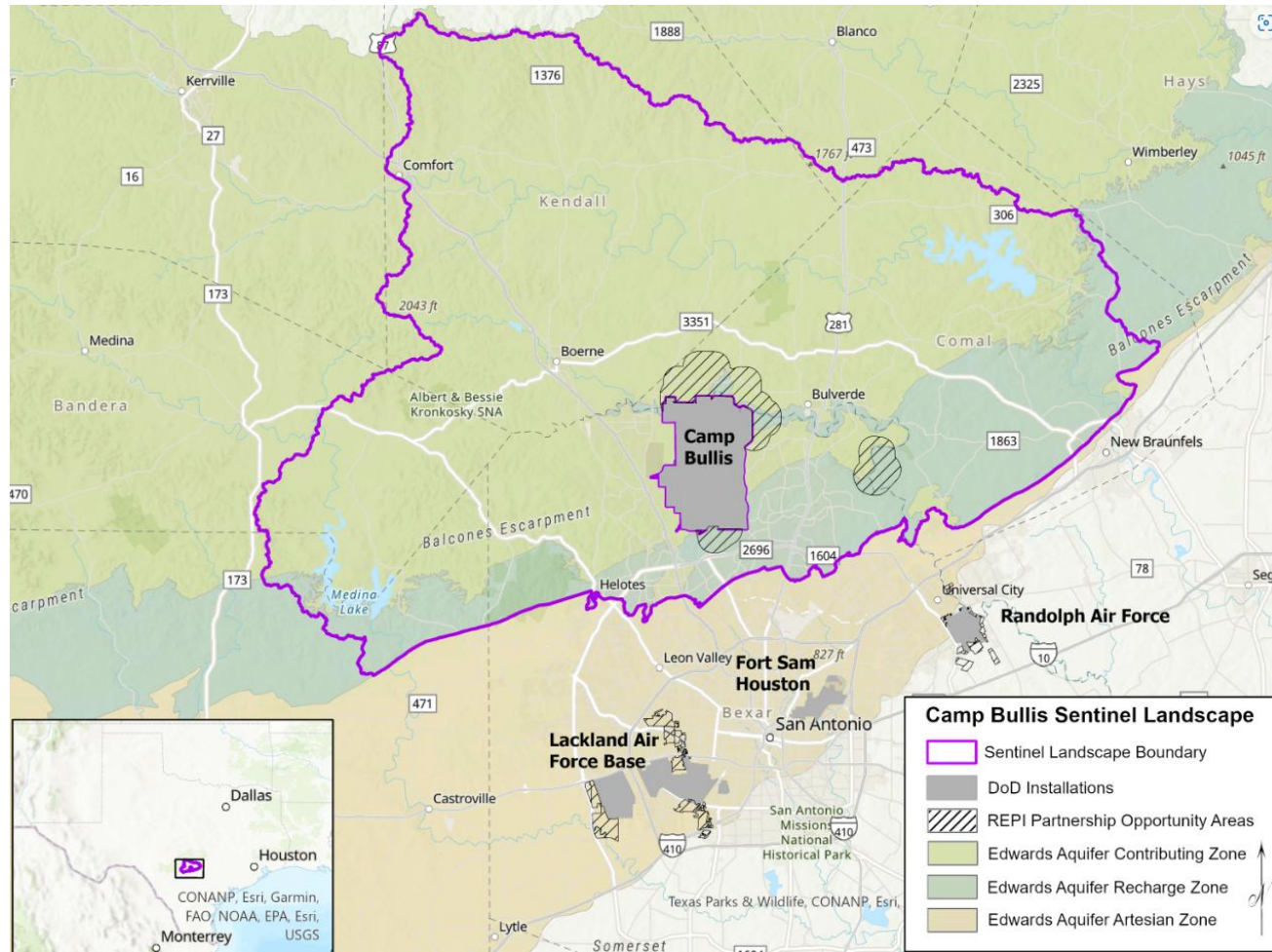


Allan K. Clark, OTWSC

What is the Camp Bullis Sentinel Landscape?

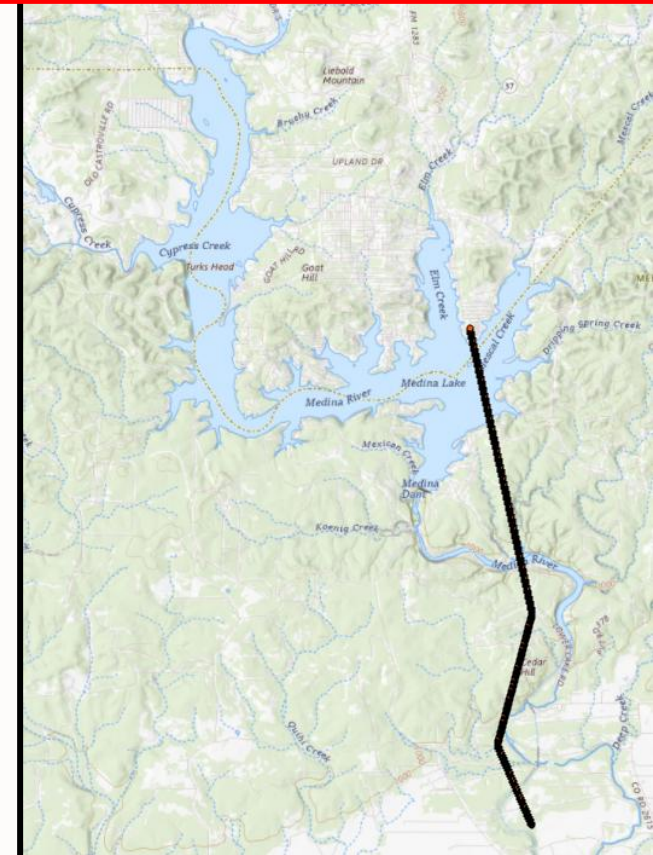
[Camp Bullis | Sentinel Landscapes](#)

Allan K. Clark, OTWSC



Problem

There is a lack of comprehensive water-level data in both the Edwards and Trinity aquifers within the CBSL study area. Specifically, there is a lack of comprehensive potentiometric data with which to compare water-levels in the Edwards aquifer to those in the upper, middle, and lower zones of the Trinity aquifer. These data are needed to understand where depletion, recharge, groundwater communication between aquifers, and groundwater communication within the zones of the Trinity aquifer are occurring.



Objective

The objective of the study is to obtain comprehensive water-level data within the Edwards and Trinity aquifers within the CBSL study area (and outside). This water-level data will be used to build maps of the potentiometric surface of the aquifers to aid in identifying groundwater flow paths within and between the Edwards and Trinity aquifers and gain an understanding of where areas of groundwater depletion and recharge might be affecting the aquifers.

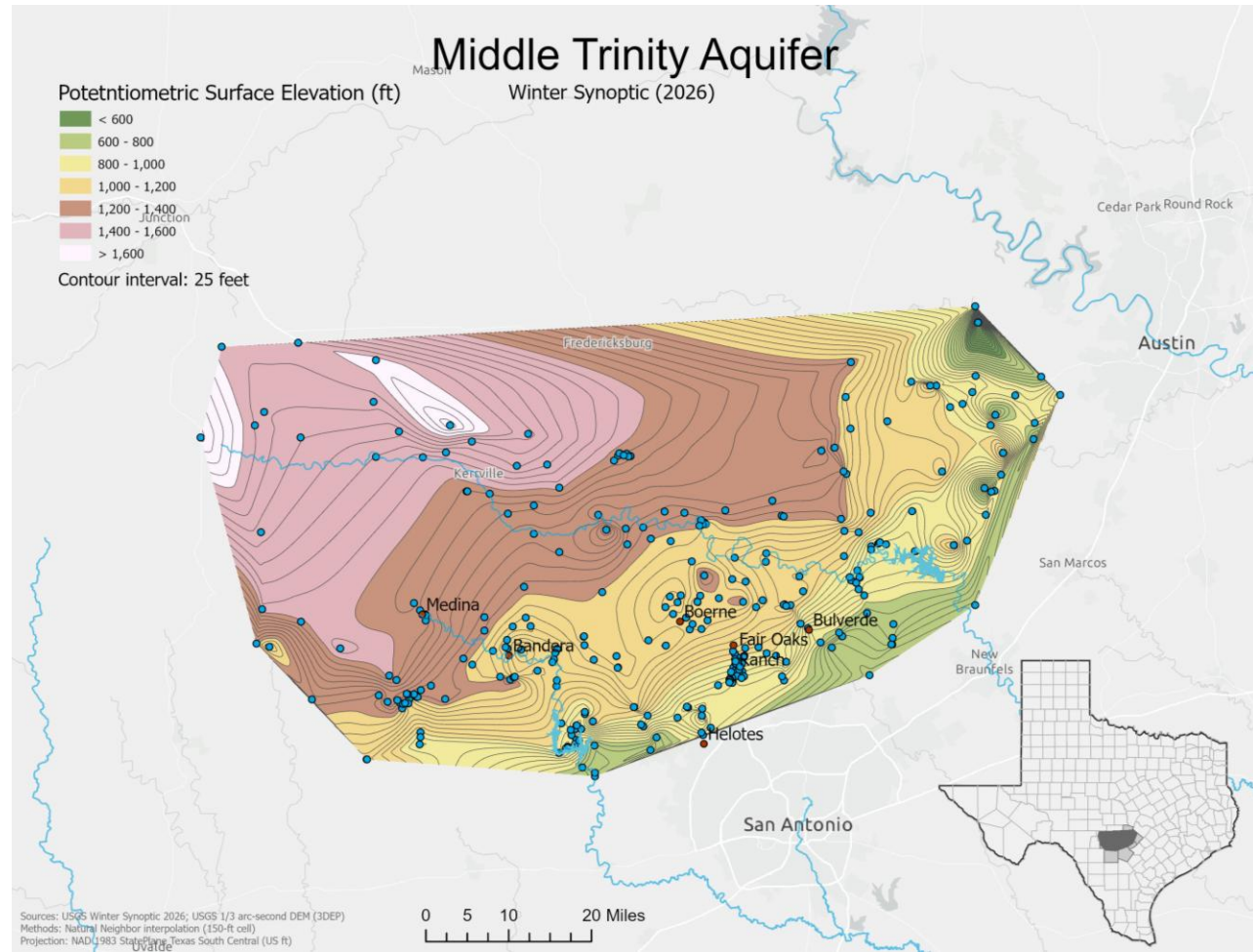
Scope

The scope of the study will be within the outcrops and parts of the confined Edwards and Trinity aquifers in parts of Bandera, Bexar, Blanco, Comal, and Medina Counties. Synoptic water-level surveys events will occur over a four-year period beginning in the winter of year one. A total of 8 synoptic water level measurements are planned to occur over the 4-year period.

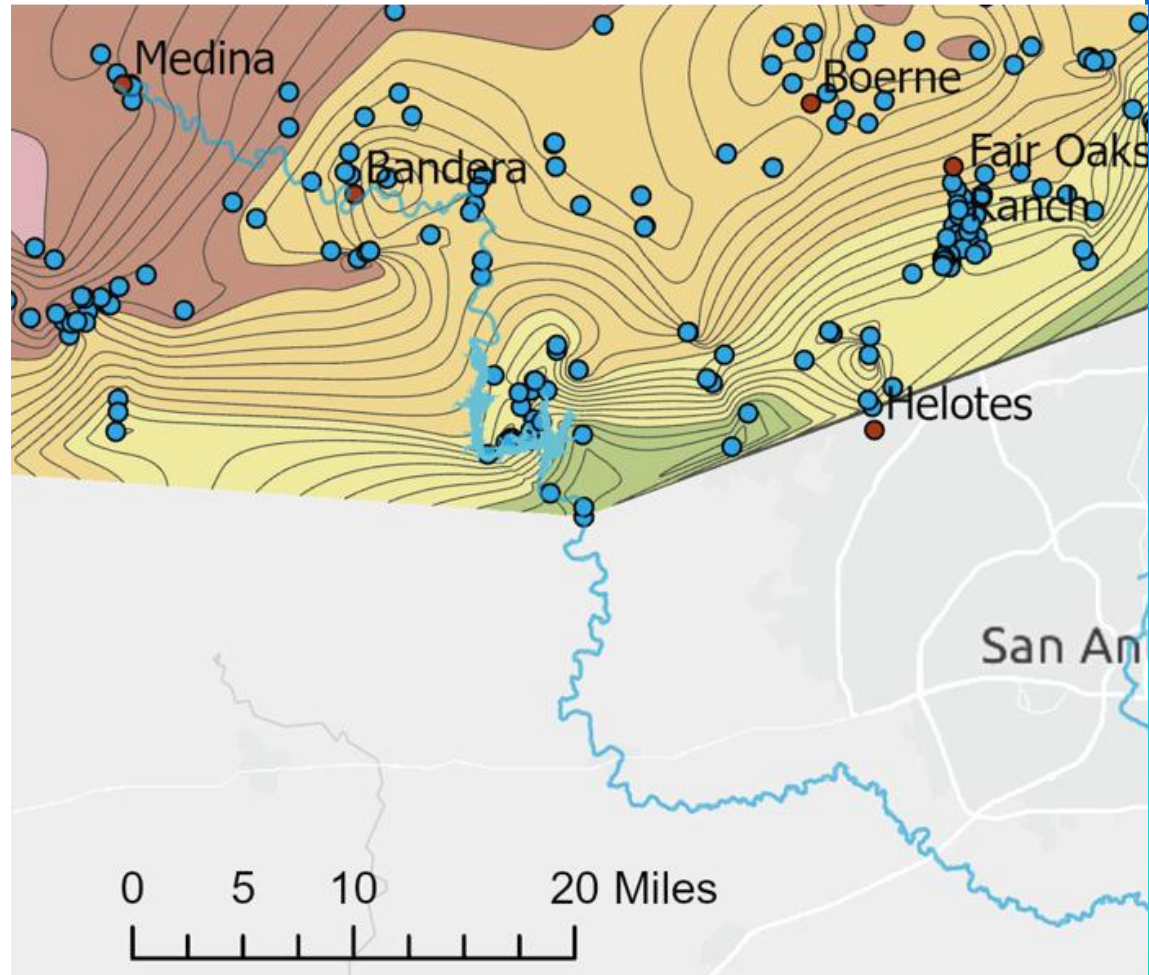
Aquifers being studied:

- Edwards
- Upper zone of the Trinity
- Middle zone of the Trinity
- Lower zone of the Trinity

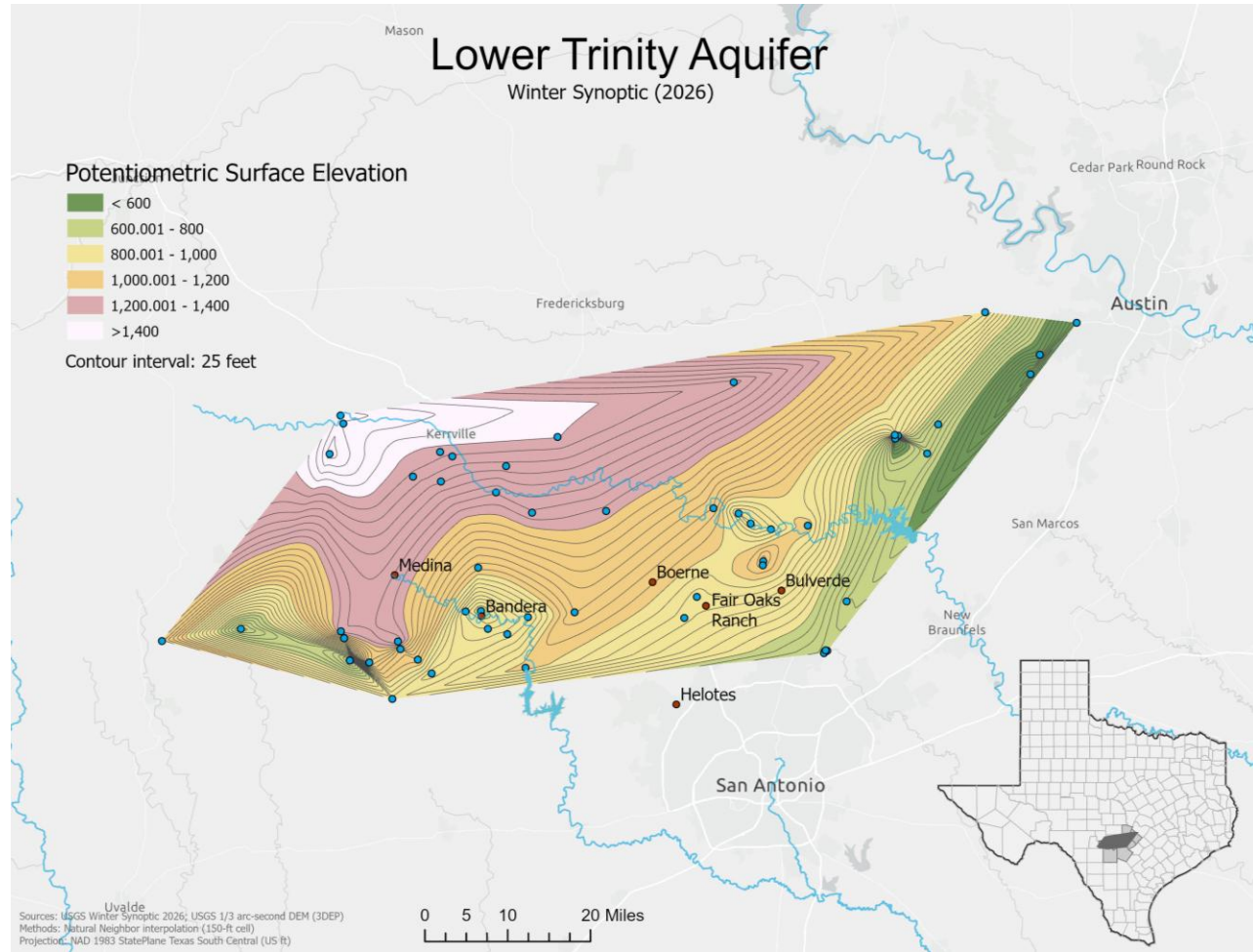
Preliminary Results



Preliminary Results



Preliminary Results





In closing, a final word from
Retired Medina County Judge
Chris Schuchart

PLEASE DONATE.

IT IS ONLY through your
contributions SML can do our
work to

SAVE MEDINA LAKE

YOUR DONATIONS SUPPORT:

**MARKETING CAMPAIGNS • LEGAL
COUNSEL • LEGISLATIVE ADVOCACY •
EDUCATIONAL MATERIALS**



SAVE THE DATE!

APRIL 10, 2027



Paradise
CANYON
ESTABLISHED 1957



LEARN MORE



**Come Together to Raise Funds &
Help Save Medina Lake! Details to Follow!**
WWW.SAVEMEDINALAKE.COM





Questions

Door Prizes

2021 BMA Canal System Flight by Casey Fox



THANK YOU!