

DRAFT

Conceptual Framework

Groundwater Extraction Metering Program

For Discussion Only



San Antonio Basin Groundwater Sustainability Agency

Ad Hoc Committee Updates to GSA Board - Updates from July 18th presentation highlighted in red
August 15, 2023

PROCESS OVERVIEW

1st Step Toward Demand Management

Purpose of the Ad Hoc Committee:

Address the initial exploration and establish a framework for the well registration and metering program. Identify a stepped, linear process for the Board's consideration. Step one, the Well Registration Program, was completed March 31, 2023.

AD HOC COMMITTEE MEMBERS

SABGSA: Kevin Merrill
Chris Wrather

Adv. Comm: Leta Spencer
Matt Scrudato

Staff: Donna Glass, SABWD
Stephanie Bertoux, SABGSA

OTHER METERING PROGRAMS STUDIED

Borrego Valley GSA
Cuyama GSA
Fox Canyon GSA
McMullin Area GSA
Mid Kings River GSA
North Folk Kings GSA
Upper Ventura River GSA

RESOURCES CONSULTED

GSI Water Solutions
Brownstein, Hyatt, Farber & Schreck

METERING PROGRAM OVERVIEW

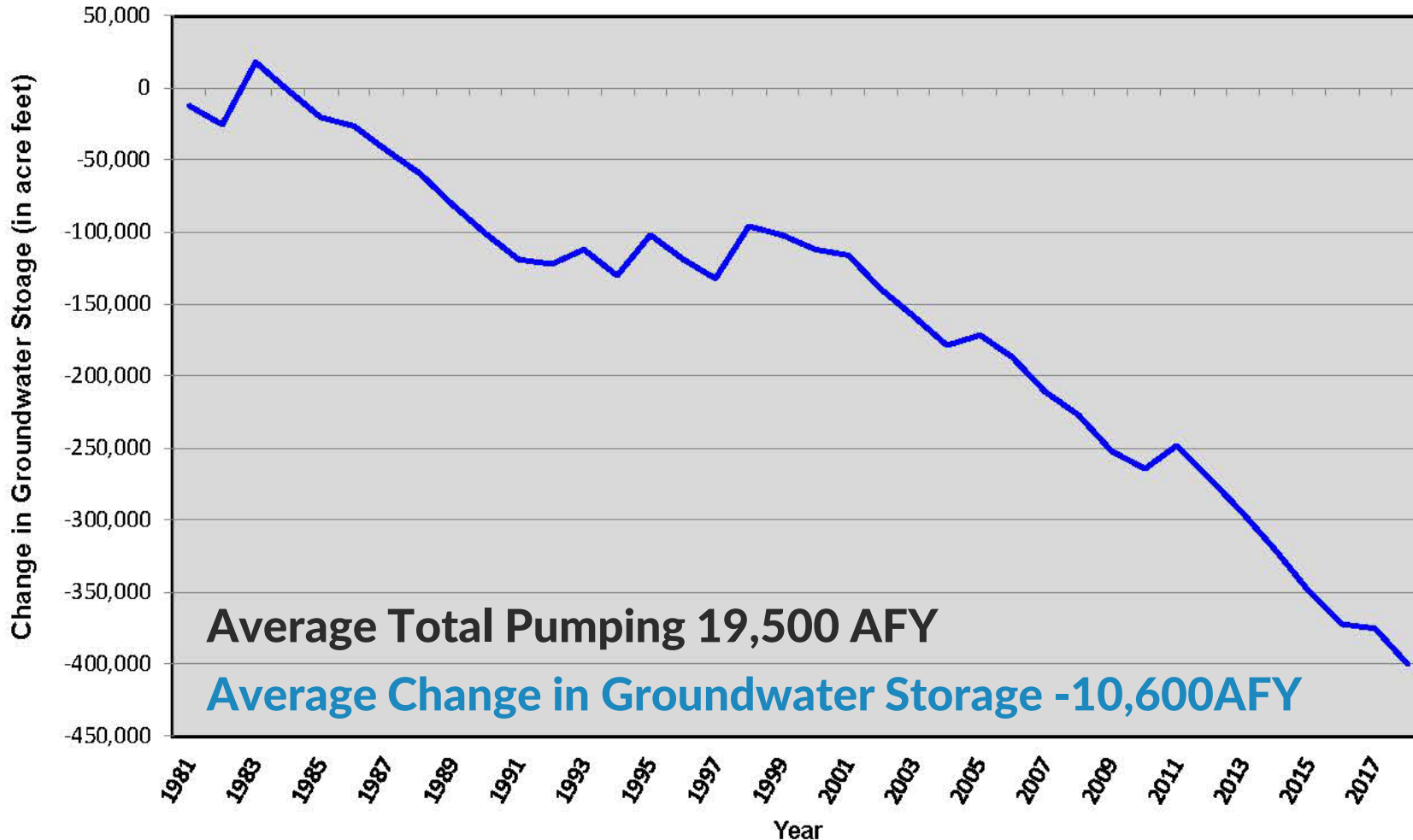
- **Program Objective:** Facilitate consistent and reliable reporting of groundwater extraction volumes excluding de minimis wells (under 2AFY).
- **Program Purpose:** Provide accurate and reliable data of groundwater extraction volumes as specified as a Tier 1 Management Action of the GSP.
- **Overarching Goal:** Sustainably manage, protect and maintain the groundwater resources within the Basin consistent with SGMA for the benefit of all water users.

Presentation Goal

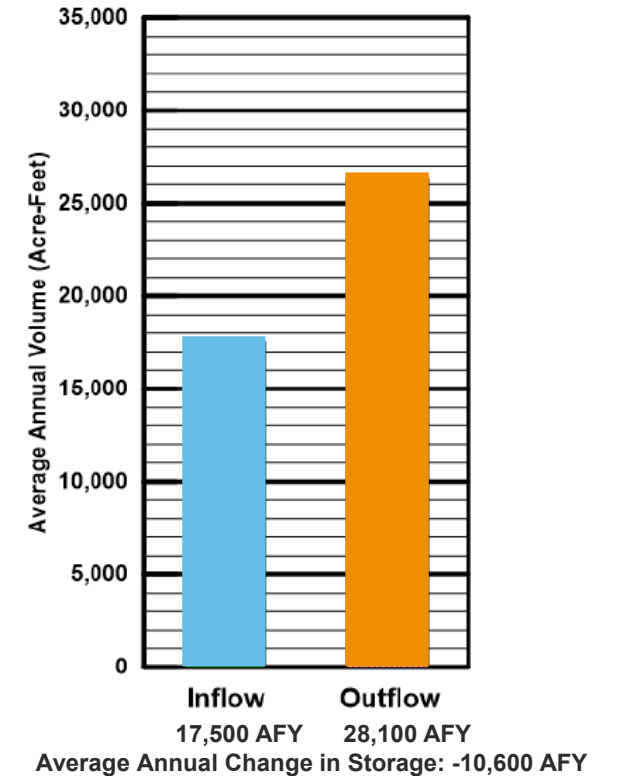
Provide an update and circulate recommendations for the SABGSA Groundwater Extraction Metering Program from Ad Hoc Committee for Discussion

BASIN STATUS

Extracting More than the Basin's Sustainable Yield

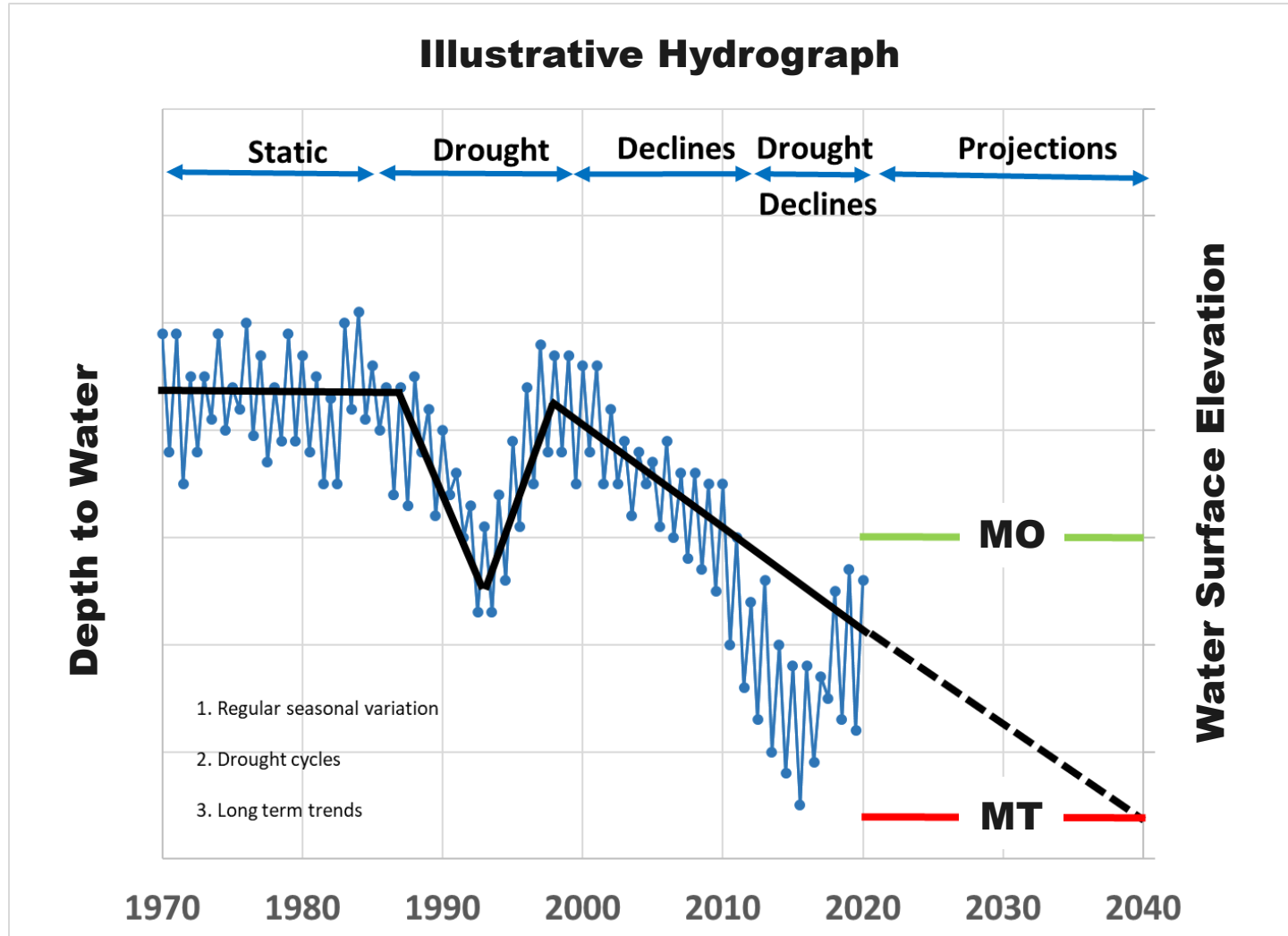


Historical Base Period



BASIN STATUS

Chronic Lowering of Groundwater Levels



Based on Historical
Water Budget...

On average, basin-wide
groundwater levels are
declining about 1.5 ft
per year

Without intervention, 50%
of the RMS wells could
reach their respective MTs
in about 20 years

BASIN MANAGEMENT

Understanding Water Extraction in the Basin

To support effective basin management, two key pieces of information are needed.



METERING PROGRAM COMPONENTS

Who

- All wells in the GSA (excluding de minimis wells)
 - GSA is legally authorized to require flow meters. Landowner is responsible for all associated costs. (Water Code 10725.8)

Flow Meter Specifications

- Totalizing flow meter with a calibrated accuracy of $\geq 5\%$ by volume (Water Code 1042)

Installation

- ~~Must be performed by a licensed installer/pump contractor.~~
- Must be installed to manufacturer specifications.

Calibration

- **Accuracy of +/-5%. GSA calibration compliance form/certificate required.**
- If verification error exceeds 5%, then the meter must be recalibrated or replaced with a certifiable meter.
- **Ad Hoc Comm. to continue to discuss frequency of routine calibration and validation – per manufacturers specifications v. GSA master schedule.**

Accuracy Level Required by other GSAs

- + / - 5%
 - Mid Kings River
 - Upper Ventura River
 - Fox Canyon
 - Borrego Springs
- + / - 4%
 - Cuyama
- + / - 2%
 - McMullin

LEGAL AUTHORITY

Water Code 10725.8 - SGMA

- (a) A groundwater sustainability agency may require through its groundwater sustainability plan that the use of every groundwater extraction facility within the management area of the groundwater sustainability agency be measured by a water-measuring device satisfactory to the groundwater sustainability agency.
- (b) All costs associated with the purchase and installation of the water-measuring device shall be borne by the owner or operator of each groundwater extraction facility. The water-measuring devices shall be installed by the groundwater sustainability agency or, at the groundwater sustainability agency's option, by the owner or operator of the groundwater extraction facility. Water-measuring devices shall be calibrated on a reasonable schedule as may be determined by the groundwater sustainability agency.
- (c) A groundwater sustainability agency may require, through its groundwater sustainability plan, that the owner or operator of a groundwater extraction facility within the groundwater sustainability agency file an annual statement with the groundwater sustainability agency setting forth the total extraction in acre-feet of groundwater from the facility during the previous water year.
- (d) In addition to the measurement of groundwater extractions pursuant to subdivision (a), a groundwater sustainability agency may use any other reasonable method to determine groundwater extraction.
- (e) This section does not apply to de minimis extractors.

LEGAL AUTHORITY

23 CCR § 1042 – Metering Standards – SWRCB’s Measurement of Extraction for Probationary Fees if Basin is in Probationary Status. SABGSA Not Bound by These Requirements.

(a) A measurement device must be all of the following to be a “meter” used to measure groundwater extractions from the well for purposes of section 1040, subdivision (a)(1)(A):

- (1) Equipped with a totalizer that records the total volume of groundwater extracted from the well.
- (2) Permanently attached to the well discharge pipe between the point of extraction and the point of delivery for beneficial use.
- (3) Calibrated to an accuracy of within + five (5) percent by volume. The calibration must be conducted by a qualified individual upon installation and at least once every five years thereafter, or more frequently if necessary to ensure accuracy is maintained.
- (4) Installed, maintained, operated, inspected, and monitored to ensure the accuracy requirement of subdivision (3).
- (5) Installed in a manner such that it is readily accessible for reading, inspection, testing, repair and replacement.
- (6) Reasonably accessible and available for inspection by an authorized representative of the board upon request.

(b) The board may conduct a field inspection or request additional information from the extractor to determine if a meter is properly installed and meets the requirements of this section. Failure to provide reasonable access for an inspection or to provide records of calibration by a qualified individual upon request by the board is a sufficient basis for the board to determine that a meter has not been used to measure groundwater extractions for purposes of section 1040, subdivision (a)(1)(A).

Credits

NOTE: Authority cited: Sections 1529.5, 1530, 5107, 5208 and 10736(d)(3), Water Code. Reference: Sections 1529.5, 1530 and 5202(f), Water Code.

FLOW METER REPORTING

Semi-Annually by Landowners in Spring and Fall

Reporting Requirements

- Each flow meter must be read monthly
- Monthly flow meter readings must be reported twice a year to the GSA in Spring and Fall
 - Due to GSA November 1 (April 1-Sept. 1 readings) and May 1 (Oct. 1 – Mar 1 readings)
- Reporting must be completed using the process identified by the GSA.
 - The specific mechanism for data collection (digital, by mail, etc.) and information to be collected is TBD.
 - Internal data management does not need to be addressed in an ordinance or rules/regs. However, landowners should be given notice of their reporting obligations concurrently with the requirement to install meters. That way they can form a plan for compliance.

SABGSA Reporting Form May Include

- Owner/Operator
- Local Well Name
- State Well Number (SWN)
- Flow meter serial number
- Flow meter reading for the volume (including units) for the reporting period with date and time of recording
- Calculated total volume (including units) for the reporting period
- Photograph of the well flow meter at the time of reading showing the totalizer value

PROGRAM COMPLIANCE & VERIFICATION

- Ad Hoc Committee to develop reporting form templates for:
 - Groundwater Extraction/Flow Meter Reporting
 - Installation/Calibration Compliance
 - Parcel and Facility Identification

Non-Compliance

- SABGSA should consider future enforcement mechanisms (policies and penalties) for non-compliance.
- Ad Hoc Committee will develop recommendations for:
 - Well Registration Non-Compliance
 - Flow Meter Install Non-Compliance
 - Calibration Non-Compliance
 - Reporting Non-Compliance

SABGSA Flow Meter Compliance Form May Include

- **Manufacturer, Model, and Serial Number of Flow Meter**
- **Date Flow Meter Installed**
- **Diameter of Pipe and Size of Flow Meter**
- **Calibration records and results, flow tester contact information ,etc.**
- **If multiple flowmeters on a parcel, SABGSA could require a map identifying the locations of the various flowmeters and lands serviced collectively by these flowmeters**

ADDITIONAL INFORMATION

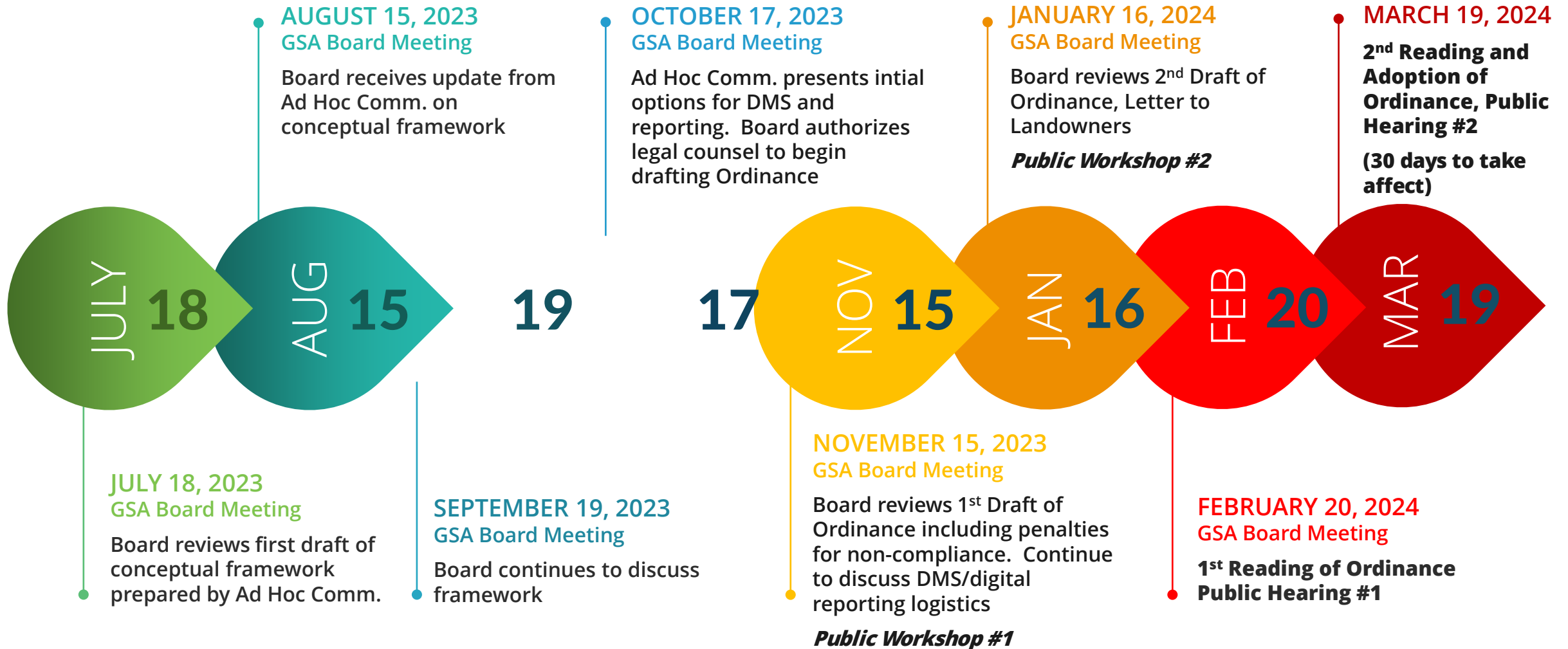
- Roughly 1/3 wells in the Basin were reported to have flow meters during the well registration process
 - It is unknown as to whether these flow meters will meet the accuracy and installation requirements.
- Flow meter parts and labor are estimated at \$3,000 - \$8,000 per well depending on the size of the system and the type of flow meter
- Installation can be subsidized by the County of Santa Barbara's Well Metering Assistance Program
 - \$500 per Landowner (not per well).
- **SABWD has lowered the Assessment for FY 23-24 from \$60 to \$40 per irrigated acre in anticipation of the mandatory metering program.**
- SABGSA will continue to search for grant funding.
 - **Bureau of Reclamation WaterSMART grant may be an option. Funding and grant requirements for FY 24-25 not yet available.**

SABGSA Well Registration Program Stats

- **Registered Wells: 268**
 - **Accounts for 12,370.83 irrigated acres – roughly 95.7% of total irrigated acres within the Basin**
 - **Outstanding Well Registrations account for 555.07 irrigated acres - roughly 4.3% of total irrigated acres within the Basin**
- **Metered Wells: 94 of 268 – 35%**
 - **Electromagnetic: 17**
 - **Propeller: 73**
 - **Ultrasonic: 2**
 - **Unknown: 2**
- **Unmetered Wells: 174 of 268 – 65%**

DRAFT SCHEDULE | SUBJECT TO CHANGE

Takes Effects April 2024; Tentative Deadline for Install April 2025



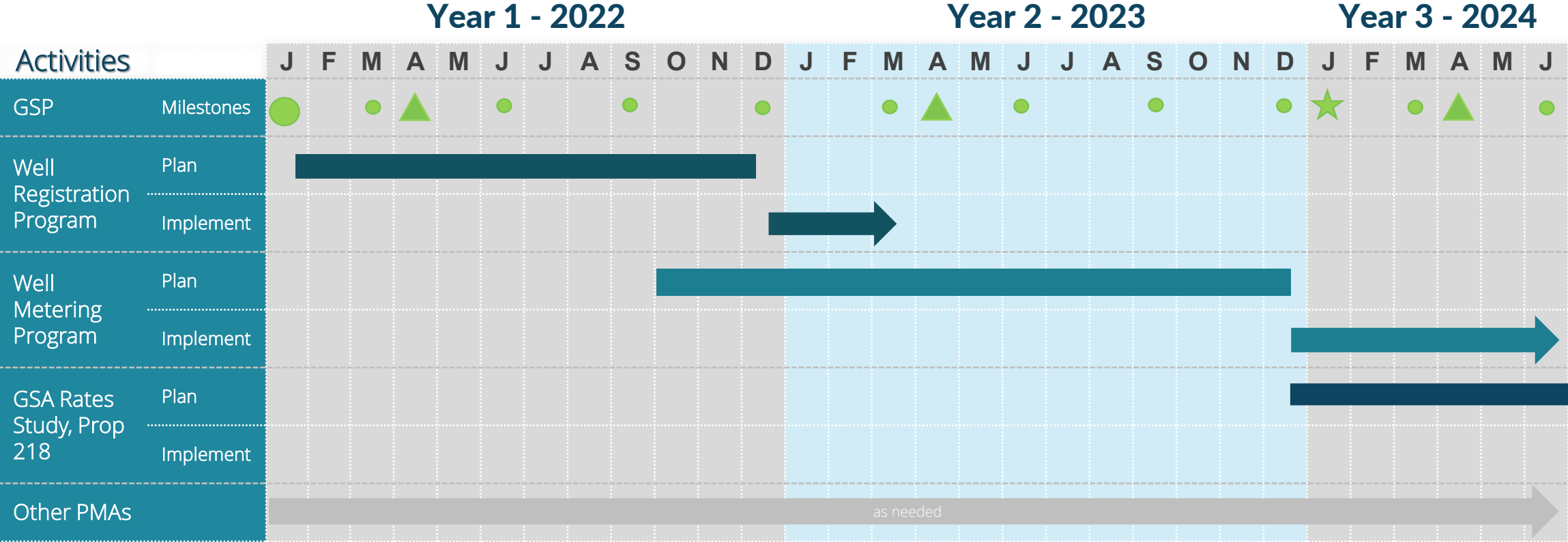
DISCUSSION ITEMS/ QUESTIONS

- General comments on draft framework
- Is it practical for the reporting mechanism to be all digital? Could consider RFP for DMS platform.
- Flow meter failure and back up measurements to be addressed by Ad Hoc Comm.

Next Steps for Ad Hoc Committee

- Interview Other GSAs for Successes and Lessons Learned
- Form Content – Compliance and Reporting
- Develop Framework for Data Management System
- Establish Budget for Data Collection and DMS
- Develop Plan for Landowner Communication and Public Workshops
- Draft Ordinance with Legal and Technical Input
- Refine Program Timeline
- Develop FAQ Document and Instructions

PROJECTS AND MANAGEMENT ACTIONS TIMELINE



Timeline is an estimate, subject to change

- GSP Adopted
- ▲ Annual Reports
- Quarterly Reports
- ★ GSP Determination