

# DRAFT

## Conceptual Framework

# Groundwater Extraction Metering Program

*For Discussion Only*



## San Antonio Basin Groundwater Sustainability Agency

Ad Hoc Committee Recommendations to SABGSA Board – 1<sup>st</sup> DRAFT  
July 18, 2023

# PROCESS OVERVIEW

## 1<sup>st</sup> 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

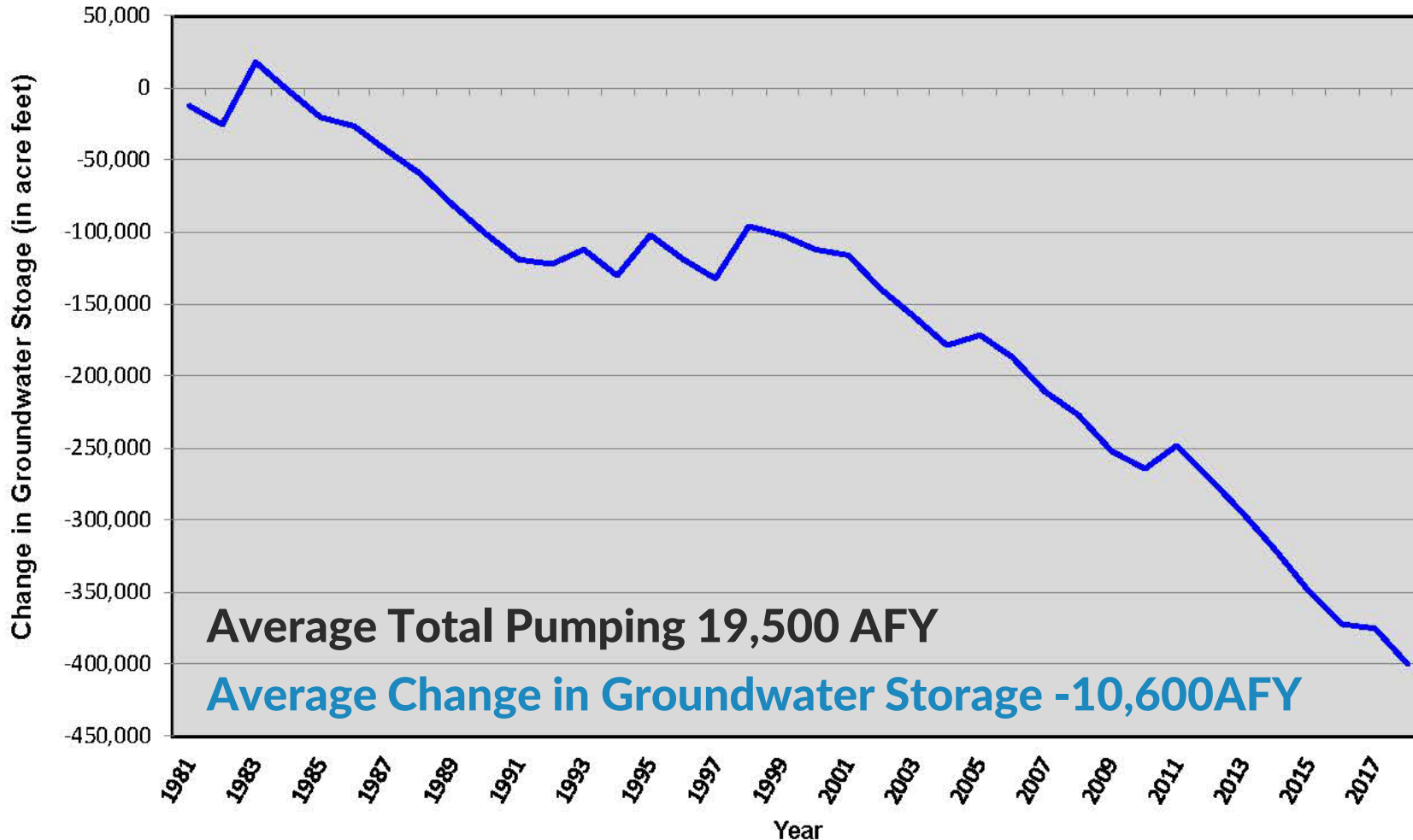
- **Program Objective:** Facilitate consistent and reliable reporting of groundwater extraction volumes excluding de minimis wells (under 2AFY).
- **Program Purpose:** Provide accurate and reliable data of groundwater extraction volumes as specified as a Tier 1 Management Action of the GSP.
- **Overarching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

## Presentation Goal

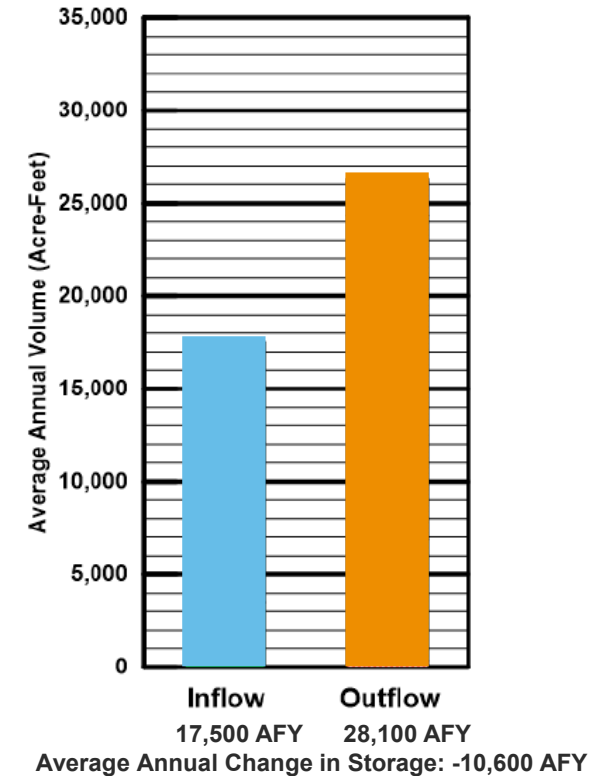
**Provide an update and circulate recommendations for the SABGSA Flow Metering Program from Ad Hoc Committee for Discussion**

# BASIN STATUS

Extracting More than the Basin's Sustainable Yield

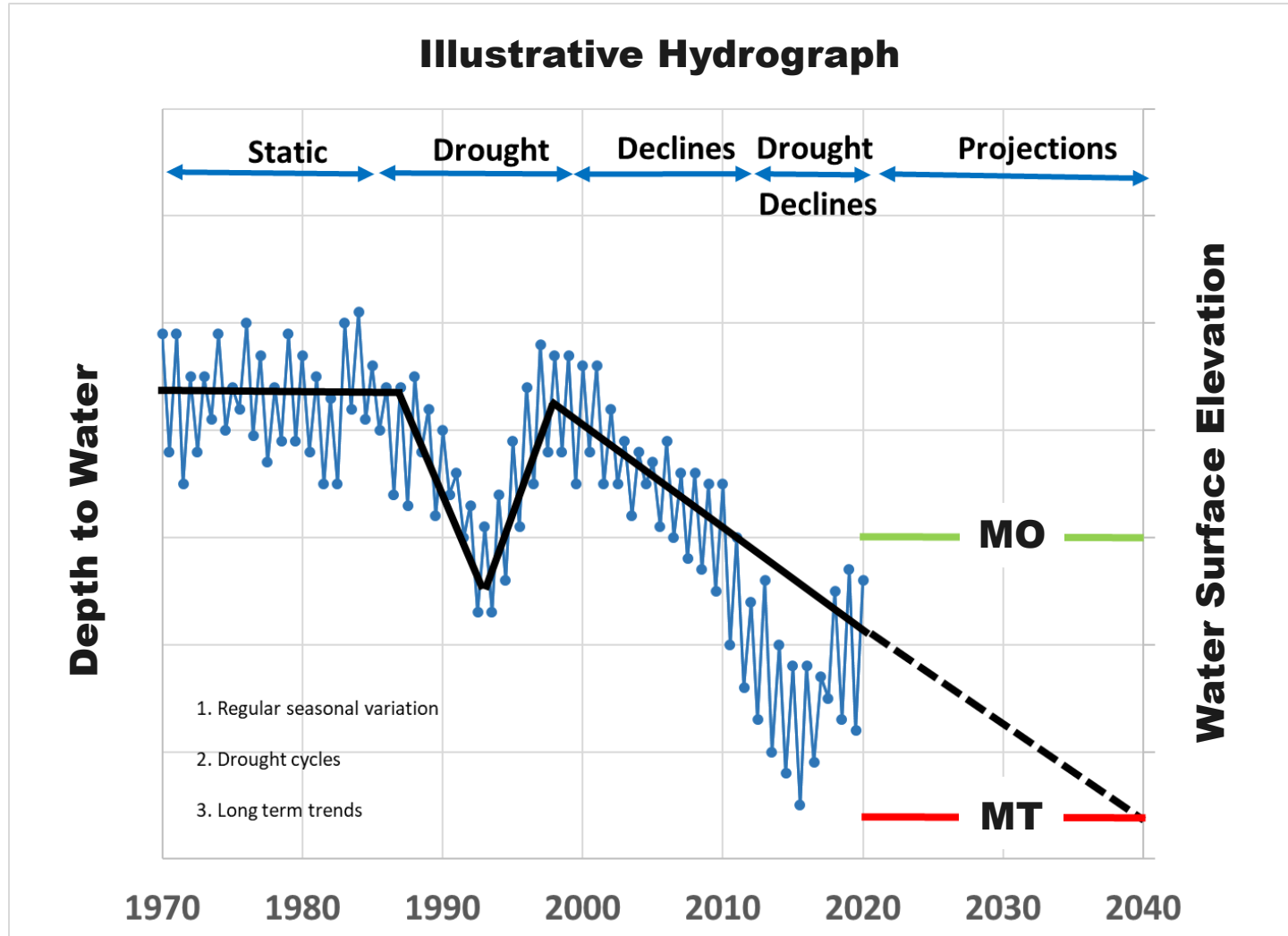


## Historical Base Period



# 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

- Meters required to be calibrated based on manufacturer specifications.
- If verification error exceeds 5%, then the meter must be recalibrated or replaced with a certifiable meter.
- GSA may create a calibration schedule in the future (annual/biannual)

## Accuracy Level Required by other GSAs

- $\pm 5\%$ 
  - Mid Kings River
  - Upper Ventura River
  - Fox Canyon
  - Borrego Springs
- $\pm 4\%$ 
  - Cuyama
- $\pm 2\%$ 
  - 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
  - GSA could require photo documentation
- Monthly flow meter readings must be reported twice a year to the GSA in Spring and Fall
  - Specific Due Dates TBD
- 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

## 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**
- **Installation records, Contractor contact information and license number**
- **Calibration records and results, Contractor contact information and license number**
- **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 is discussing lowering the Assessment for FY 23-24 in anticipation of the mandatory metering program.
- SABGSA will continue to search for grant funding.

## 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 FOR ORDINANCE

Take Effects April 2024; Tentative Deadline for Install April 2025



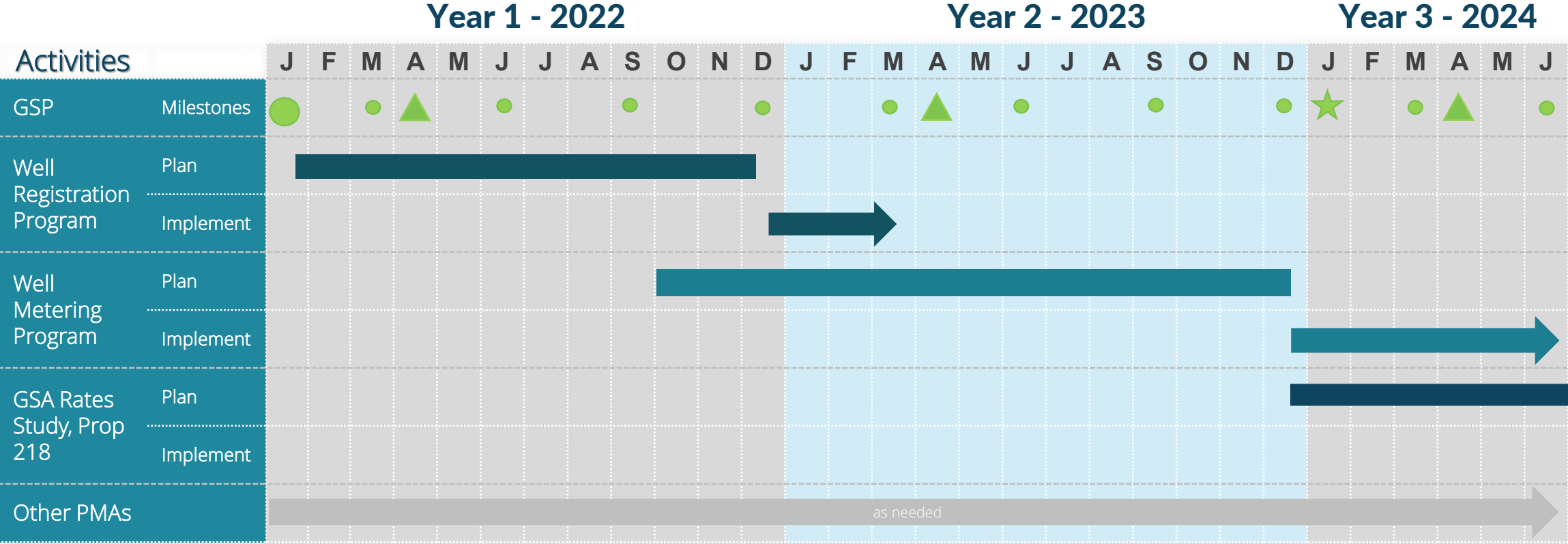
# DISCUSSION ITEMS/ QUESTIONS

- General comments on draft framework
- Comments on timeline for implementation

## Next Steps for Ad Hoc Committee

- Form Content – Compliance and Reporting
- Draft Ordinance with Legal and Technical Input
- Develop Data Management System
- Establish Budget for Data Collection and DMS
- Develop Plan for Landowner Communication and Public Workshops
- 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