Lower Tule River Irrigation District
Pixley Irrigation District

PIXLEY ID GROUNDWATER SUSTAINABILITY AGENCY

Sustainable Groundwater Management Act (SGMA)

SEPTEMBER 3, 2019

Overview

1. Sustainable Groundwater Management Act Overview
2. Overview of Tule Basin
3. Groundwater Sustainability Plan Content Overview
4. TimeLine Overview

Key SGMA Terms

- **SGMA**: Sustainable Groundwater Management Act – Described in the Water Code – A Law of the State of California
- **GSA**: Groundwater Sustainability Agency – Overarching body responsible for implementing SGMA – Defined by boundaries
- **GSP**: Groundwater Sustainability Plan – Each GSA adopts a GSP – GSP describes how the GSA will meet the requirements of the SGMA
- **Coordination Agreement**: Defines the Methodologies to coordinate within the Tule Subbasin. GSAs signed a Memorandum of Understanding (MOU).

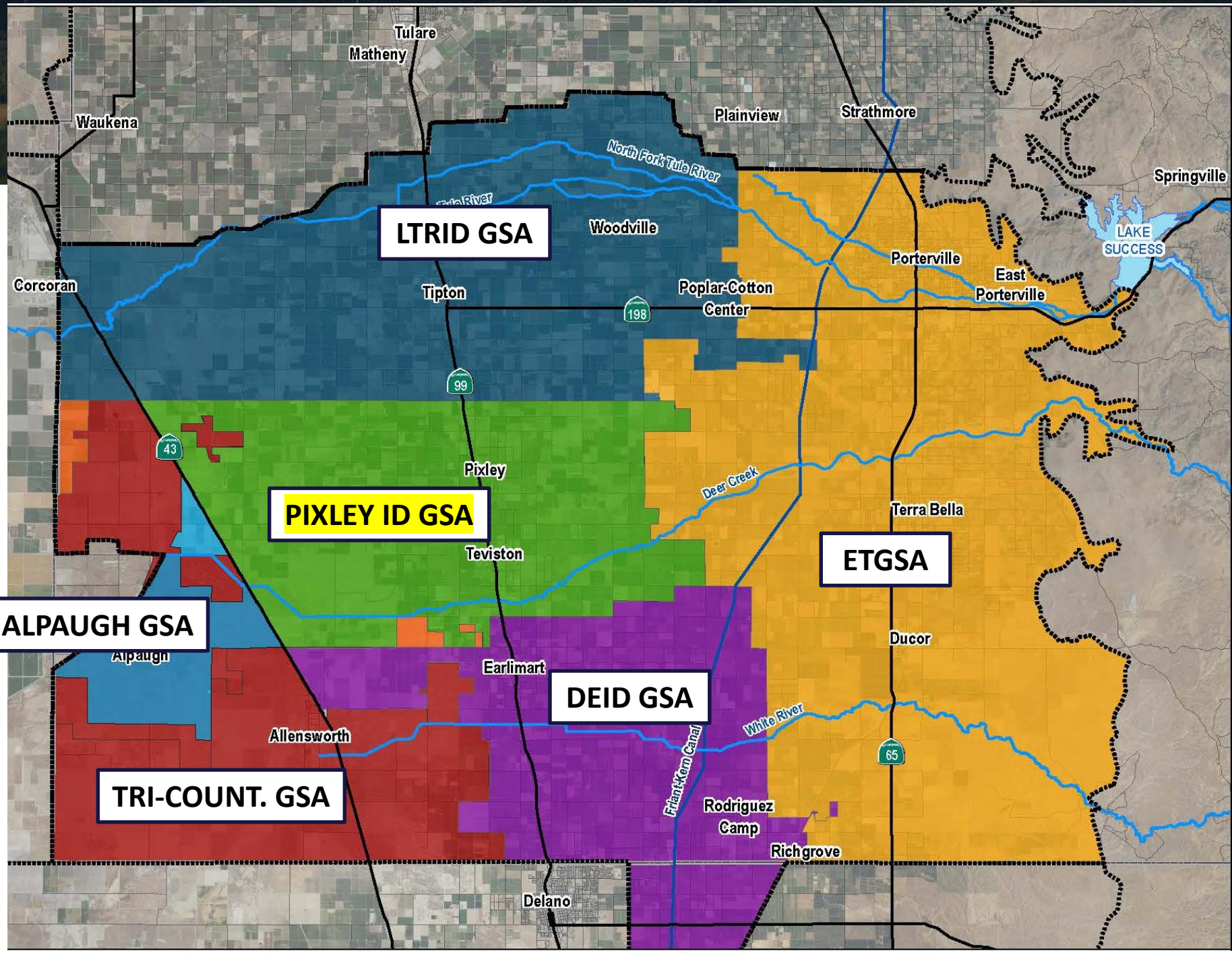
SGMA Overview

1. Adopted into State Law in 2014
2. Groundwater Sustainability Agencies formed by 2017
3. Law Requires GSAs Develop and Implement Sustainability Plans by January 31, 2020
4. Achieve Sustainability by January 31, 2040
5. What is Sustainability? Measured largely by the avoidance of Six undesirable results:
    - **Chronic Lowering of Groundwater levels**
    - **Significant and unreasonable reduction of groundwater storage**
    - **Significant and unreasonable seawater intrusion**
    - **Significant and unreasonable degraded water quality**
    - **Significant and unreasonable land subsidence**
    - **Depletions of interconnected groundwater and surface water**

Tule Subbasin Overview

1. LTRID GSA: 104,525 ac.
2. Eastern Tule GSA (ETGSA): 161,511 ac.
3. Pixley ID GSA: 69,803 ac.
4. Delano Earlimart GSA (DEID GSA): 64,134 ac.
5. Tri-County GSA: 61,575 ac.
6. Alpaugh GSA: 14,437 ac.
7. Tulare County GSA: 2,408 ac.

TOTAL Area: 477,000 ac.



Tule Subbasin Overview

- Multiple GSA's with Multiple GSP's
- Plans Must Be Coordinated – Otherwise State Board can place basin in probationary status which could include the State Water Board determining use of surface water rights
- 477,000 acres total in the Tule Sub-basin
- 129,700 acre-feet Gross Sustainable yield (0.27 af/acre)
  - Total of "naturally occurring" water in the basin by gross the acreage
  - Amount of groundwater allocated to each gross acre to pump absent separately accounted for return flows from any imported, or surface water rights held

Groundwater Sustainability Plan Overview

- Section 1 – Introduction
- Section 2 - Basin Setting
- Section 3 – Sustainable Management Criteria
  - Outlines Sustainability Goals to avoid six undesirable results
- Section 4 – Monitoring Networks & Monitoring Plan
- Section 5 – Projects and Management Actions
  - GSA specific Rules,
  - Projects,
  - Implementation,
  - Enforcement
- Section 6 – Plan Implementation
  - Schedule, costs, funding, reporting schedule and descriptions
- Section 7 – References and Technical Studies

GSP Overview (Continued)

- <u>Section 5 Management Actions</u>
  - Water Measurement and Metering –
    - CalPoly ITRC – METRIC, using NASA Landsat
      - Crop Demand (Etc) vs. Applied water (Gross pumping)
  - Water Accounting and Water Transfers
    - Each Landowner to have an account
    - Landowners may lease or sell Sustainable yield credits and landowner developed credits
  - Groundwater Banking at the Landowner Level
    - Specific recharge will result in Groundwater credits (90/10)

GSP Overview – Pixley specific (continued)

- District Groundwater Credits
  - Done on behalf of all landowners
  - Will be used first to meet Sustainability requirements
  - May be allocated to landowners – equally, per assessed acres
- Transitional Groundwater Credits
  - Transitional GW credits = continued overdraft for a period of time while other portions of plan are implemented
  - Transitional blocks allocated in 5 year blocks through 2040 (2 af/acre, 1.5 af/ac, 1 af/ac, 0.5 af/ac)
  - Fees to be charged on transitional groundwater credits – Tiered pricing – (2 Tiers)
  - Can be used anytime in 5 year block
  - Cannot be transferred to other landowners, Tier one can be transferred to lessees
  - Defined upper limit – noncompliance may result in Per acre-foot penalty and reduction in next year allocation
- Landowner Surface Water Imported into GSA
  - Canal Capacity and availability to be determined by Irrigation District
  - Water usage and generation of groundwater pumping credit must follow GSP rules

GSP Overview – Pixley specific (continued)

- Implementation and Enforcement of Plan Actions
  - Notice of Non-compliance – time to correct
  - Penalty for overuse
  - No access to surface water if outstanding fees for a prior year owed
  - Fees collected to be used for GSP project funding
- CSD & PUD Water Use
  - Designated Management Area
    - Current water use to be monitored, reported and evaluated
    - Future growth must include water supply plan

Pixley specific data

- Pixley Acres = 69,000
- Pixley Overdraft – Approximately 74,000 acre-feet per year (1986-2017)
- Pixley Demand – 2007-2018 - 165,000 acre-feet on average (ETc)= 2.39 per acre

Pixley specific data

Projects

Intended to improve overall landowner allocations of surface and groundwater

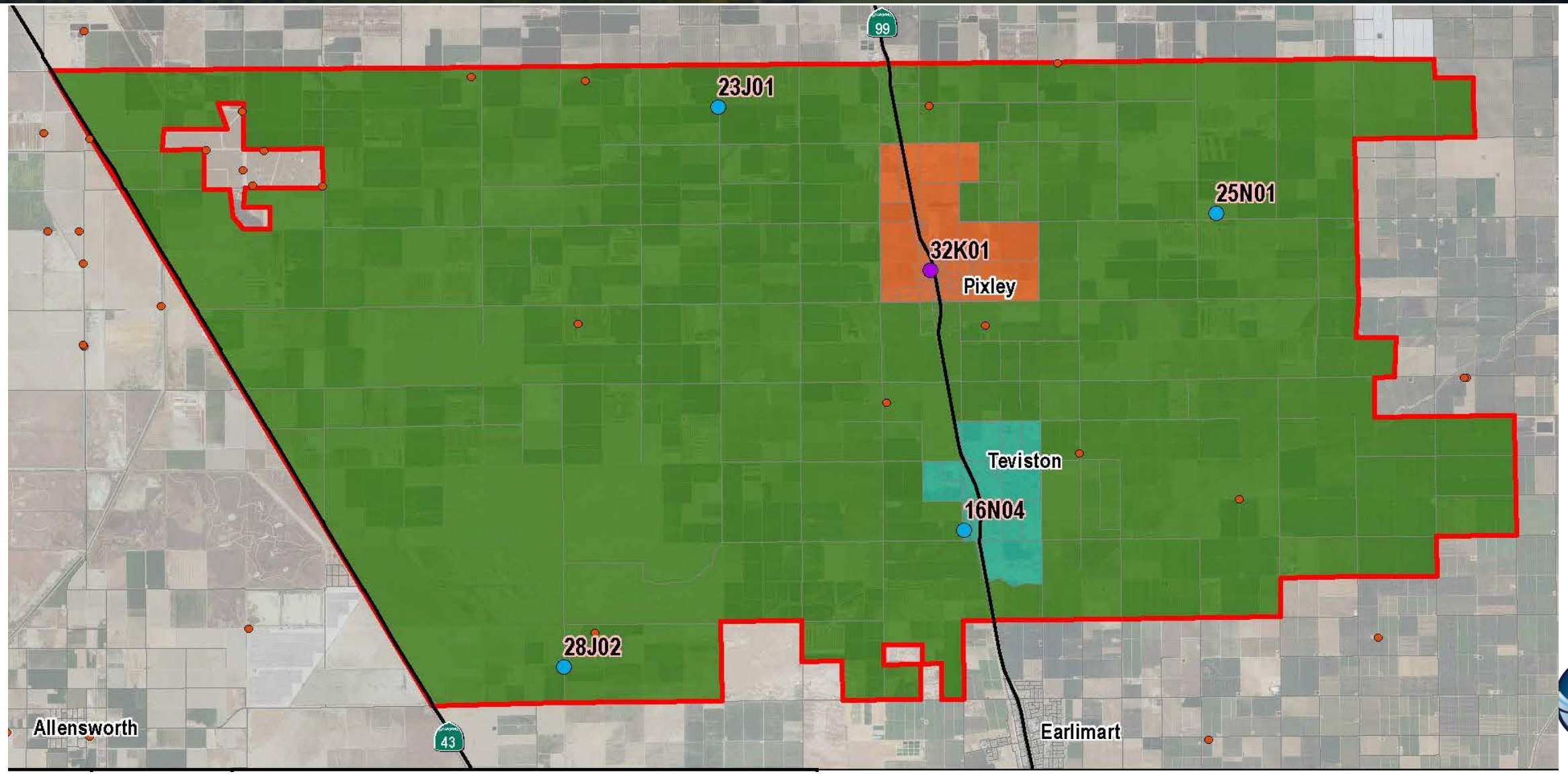
- Import Additional Water Supplies/maximize current water supplies
- Optimize Existing Surface Water Supply
- Delivery of Cross Valley Water
- Additional Recharge Basins
- Land Fallowing/Conservation/Retirement
- Distribution System Expansion

Implementation of these projects may require an increase in land-based fees

How will success be measured?

- Avoidance of the six undesirable results
- Defined by Sustainable Management Criteria (Section 3 of the GSP)
- Annual update reports to DWR required
- 5-year plan reviews due to DWR based on Representative Monitoring Sites with minimum thresholds, interim milestones and measurable objectives

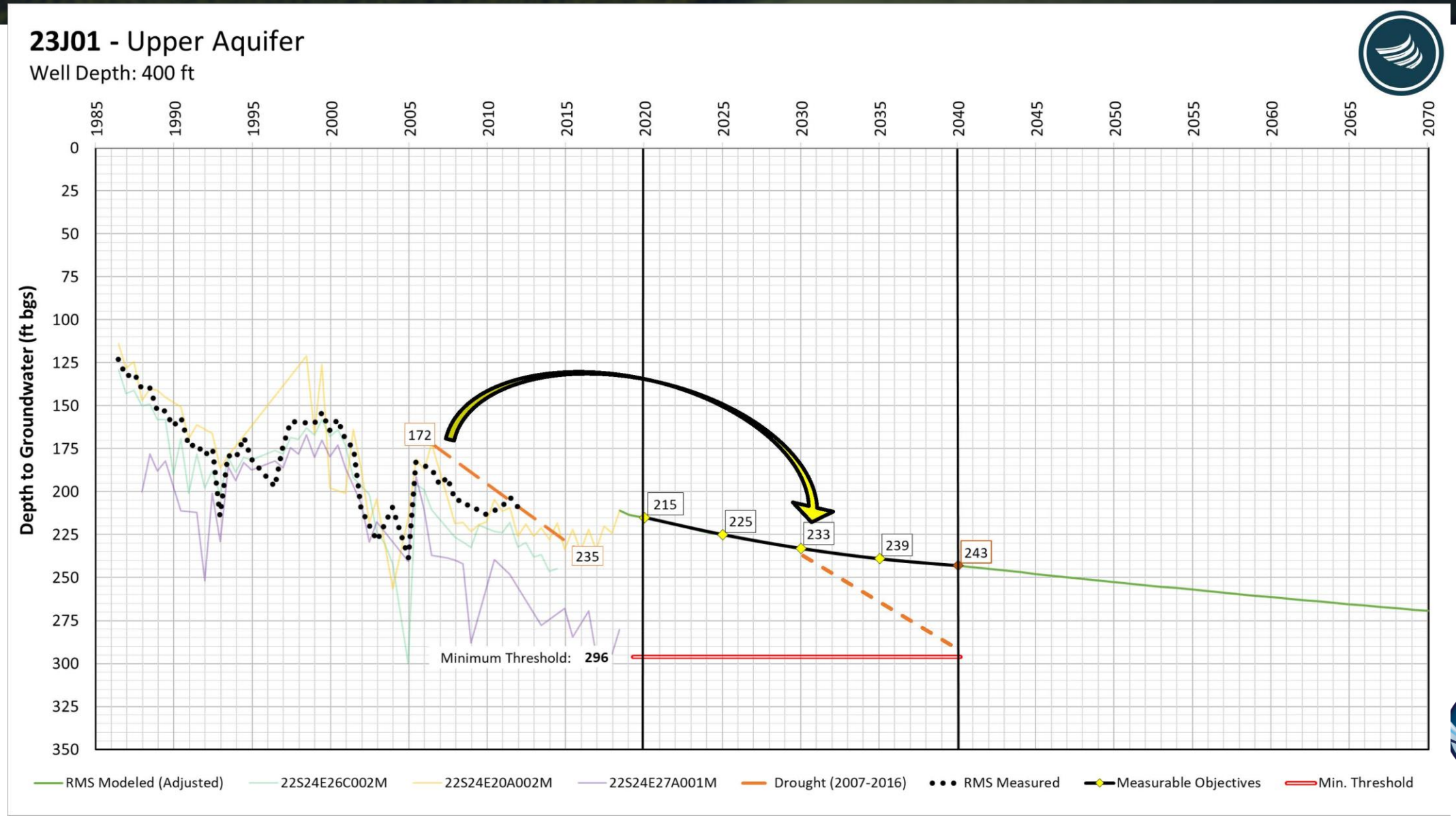
PIXLEY GSA MAP



How will success be measured? (continued)

SUSTAINABILITY INDICATOR	GW ELEVATION	GW STORAGE	GW QUALITY	LAND SUBSIDENCE
UNDESIRABLE RESULT	Unreasonable Lowering of groundwater elevation below the minimum threshold for two consecutive years at greater than 50% of GSA Management Area RMS Sites, which results in significant impacts to groundwater supply			
MEASUREMENT METHODOLOGY	Groundwater Elevations, as determined by measuring depth to groundwater at representative monitoring sites.			
MINIMUM THRESHOLD	Apply change in groundwater elevation that occurred during most recent 10 year drought (2007-2016) from lowest projected groundwater elevation between 2020 and 2030 to establish minimum groundwater elevation at RMS.			
MEASURABLE OBJECTIVE	Projected groundwater elevation, starting with most current 2019 depth measurement, adjusted in February 2020, utilizing Groundwater Flow Model projections through 2040.			
INTERIM MILESTONES	Utilize Groundwater Flow Model groundwater elevation projections at each 5 year interval (2025, 2030, 2035)			

How will success be measured? (continued)



TIMELINE/next steps Overview

- September 2019 – Begin 90-day public review process
- October 2019 – Landowner meetings
- October-December 2019 – Public Comment and Coordination
- December 2019 – 90-day public review process ends
- December 2019 – January 2020 Review and Respond to comments
- January 2020 – Board of Directors approves GSP
- January 31, 2020 – Submit Plan to DWR

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Questions ??