Overview

1. Sustainable Groundwater Management Act Overview
2. Overview of Tule Subbasin
3. ETGSA Groundwater Sustainability Plan Content Overview
4. Schedule
Key SGMA Terms

- **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 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 & 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
1. LTRID GSA: 104,525 ac.
2. Eastern Tule GSA (ETGSA): 160,879 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 – Coordination Agreement
  • Otherwise DWR can place basin in probationary status which could include the State Water Board intervention
  • Tule Subbasin Draft Coordination Agreement includes:
    • Tule Subbasin Setting
    • Tule Subbasin Monitoring Plan
    • Tule Subbasin Sustainable Management Criteria (Subbasin Sustainability Goal, Undesirable Results)
    • Tule Subbasin General Information
Groundwater Sustainability Plan Overview

- Section 1 – Introduction
- Section 2 – Agency Information
- Section 3 – Plan Area Description
- Section 4 – Basin Setting
- Section 5 – Monitoring Networks & Monitoring Plan
- Section 6 – Sustainable Management Criteria
- Section 7 – Projects and Management Actions
- Section 8 – Notices and Communication
- Section 9 – References and Technical Studies
GSP Overview (Plan Area)

Management Areas
GSP OVERVIEW (Basin Setting)

- **Tule Subbasin Gross Future Sustainable Yield:**
  129,700 acre-feet (2040)
  - Total of “naturally occurring” water in the basin, including inflows, outflows, return flows, areal precip.
  - **Net Sustainable Yield** available for Consumption will be a different value

- **ETGSA Gross Area = 161,511 ac.**
  - ETGSA Consumptive Demand: 2008-2018
    - 260,341 ac/ft per year
GSP Overview (Monitoring Plan)

Establish Representative Monitoring Sites (RMS) for:
- Depth to Groundwater
- Groundwater Quality
- Land Subsidence

These sites are basis for Sustainable Management Criteria Targets
## GSP Overview (SMC)

<table>
<thead>
<tr>
<th>Sustainability Indicator</th>
<th>GW Elevation</th>
<th>GW Storage</th>
<th>GW Quality</th>
<th>Land Subsidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undesirable Result</strong></td>
<td>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</td>
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<tr>
<td><strong>Measurement Methodology</strong></td>
<td>Groundwater Elevations, as determined by measuring depth to groundwater at representative monitoring sites.</td>
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<tr>
<td><strong>Minimum Threshold</strong></td>
<td>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.</td>
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<tr>
<td><strong>Measurable Objective</strong></td>
<td>Projected groundwater elevation, starting with most current 2019 depth measurement, adjusted in February 2020, utilizing Groundwater Flow Model projections through 2040.</td>
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<tr>
<td><strong>Interim Milestones</strong></td>
<td>Utilize Groundwater Flow Model groundwater elevation projections at each 5 year interval (2025, 2030, 2035)</td>
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</tbody>
</table>
23J01 - Upper Aquifer
Well Depth: 400 ft

Minimum Threshold: 296

- RMS Modeled (Adjusted)
- 22524E26C002M
- 22524E20A002M
- 22524E27A001M
- Drought (2007-2016)
- RMS Measured
- Measurable Objectives
- Min. Threshold
Project Categories (Completed by Member Agencies and/or Landowners):
• Existing Water Supply Optimization
• Surface Water Development
• Managed Aquifer Recharge and Banking
• Municipal Water Projects
• Agricultural Land Retirement and Conservation

Management Action Categories:
• ETGSA Groundwater Accounting & Implementation Program

NOTE: ETGSA Board will adopt policy, adaptively manage GSA based on data collected.
How will success be measured?

**Plan Submittal**
- Coordination Agreement among Tule Subbasin GSAs executed (Jan. 2020)
- GSP Adopted and Submitted (Jan. 2020)

**During Implementation**:
- Avoidance of the undesirable results defined by SMC (*Section 6*)
- Implement Projects and Management Actions (*Section 7*)
- Annual update reports to DWR
- 5-year plan reviews due to DWR based on Representative Monitoring Sites data:
  - **minimum thresholds, interim milestones and measurable objectives**
TIMELINE/next steps Overview

- September 2019 – Began 90-day public review process
- October-December 2019 – Public Comment and Outreach
- December 2019 – 90-day public review process ends
- December 2019 – January 2020 Review and Respond to comments
- January 2020 – Board of Directors adopts GSP
- January 31, 2020 – Submit Plan to DWR

GSA BOARD TO ADOPT POLICIES TO IMPLEMENT GSP DURING IMPLEMENTATION PHASE
WATER BUDGET ANALYSIS (DRAFT)

- **ETGSA TOTAL AREA**: 160,879 acres
- **ETGSA TOTAL FARMED AREA**: ~95,000 acres

  **EXPENSE:**
  - CURRENT CONSUMPTIVE USE: ~340,000 ac-ft/yr

  **REVENUE:**
  - TOTAL ANNUAL PRECIPITATION: 138,361 ac-ft/yr (ITRC estimate)
  - TOTAL NET SUSTAINABLE YIELD: 14,479 ac-ft/yr (consumptive amount)

  **NET BALANCE**: 187,160 ac-ft/yr

- Average Surface Water Delivery: 110,000 ac-ft/yr
- Estimated Net Consumptive Overdraft: 77,160 ac-ft/yr
WATER ACCOUNTING SYSTEM

• How to keep track of this by Farm?
  • Water Accounting System
    • Procedures of accounting need to be programmed
      • Priority of Water Used against Landowner Water Budget
      • Transferable Credits (i.e. Safe Yield vs. Precip)
      • Fee Schedules (how is transitional water paid for)
      • Accessibility (who has access to what)
      • Landowner Water Credits
      • Surface Water Integration / Credits
      • Municipal Integration