Stanislaus & Tuolumne Rivers Groundwater Basin Association
Groundwater Sustainability Agency
1231 11th Street | Modesto, CA 95354
Email: strgba@mid.org

TECHNICAL ADVISORY COMMITTEE
AGENDA

September 22, 2021 (1:30 p.m. – 3:00 p.m.)
Webinar Digital Platform or Phone Meeting
https://us02web.zoom.us/j/87977190402
By phone: 1-669-900-9128
Webinar ID: 878 4614 1611

PUBLIC PARTICIPATION
The public may participate in this meeting in the two ways described below.

Instructions for Participating in STRGBA GSA & Technical Advisory Meeting via Zoom Webinar or Phone

On your desktop/iPad or tablet/laptop:

1. To join the webinar, click the link published in the Agenda for the current meeting about 5 minutes before webinar begins.
2. Follow the on-screen instructions to install and/or launch the Zoom application.
3. If prompted, enter the Webinar ID published in the Agenda.
4. All public attendees will enter the meeting muted.
5. If you wish to speak under Business from the Public, or after the Chairman calls for Public Comment, click on the “Raise Hand” button to request to speak.

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1. To join the meeting by phone, call the number published in the Agenda for the meeting.
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4. If you wish to speak under Business from the Public, or after the Chairman calls for Public Comment, press *9 on your phone to “Raise Hand” or simply request to speak.
    a. Wait until the last four digits of your phone number is called by the Host.

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1. Call to Order/Welcome and Introductions
   (Four agencies needed for a quorum)

2. Business from the Public
   Who: Public
   Expected Outcome: Interested persons are welcome to introduce any topic within the Agency's jurisdiction. Matters presented under this heading may be discussed but no action will be taken by the Agency at this meeting.

3. Topic: Approve 9/8/21 Meeting Minutes [Action Item]
   Who: Eric Thorburn, Committee
   Expected Outcome: Approval

4. Topic: Sustainable Management Criteria for Degraded Water Quality and Review of Interim Milestones
   Who: Todd Groundwater, Committee
   Expected Outcome: Discussion

5. Next Meeting
   October 13, 2021 at 1:30 p.m. via Zoom

6. Items too late for the agenda

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TECHNICAL ADVISORY COMMITTEE MEETING MINUTES

September 8, 2021 (2:00 p.m. – 3:00 p.m.)

The meeting was called to order at 1:31 p.m.

1. Welcome and Introductions

The following members of the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA) attended via Zoom:

Modesto Irrigation District (MID):	Chad Tienken
City of Waterford:	Mike Pitcock
Stanislaus County:	Walt Ward
Oakdale Irrigation District:	Eric Thorburn
City of Modesto:	Miguel Alvarez
City of Oakdale:	Michael Renfrow

Other Attendees:

Phyllis Stanin, Todd Groundwater
Liz Elliott, Todd Groundwater
Bill Jackson
Tim Coleman
Hilary Reinhard
John Mauterer
Dominick Amador
Valerie Kincaid
Stu Gilman
Ryan Honnette
Emily Sheldon
Spenser Hager
Jeff Black
Samantha Wookey, MID
Gordon Enas, MID
John Mensinger
John Davids
Matthew Toste
Ali Stevens
Allison & Dave Boucher
KC Clark
Amanda Peisch-Derby
Jacob DeBoer
Peter Drekmeier
Kirsten Pringle

2. **Business from the Public**
   N/A

3. **Approve 8/11/21 Minutes** [Action item]
   Renfrow moved, 2nd by Alvarez, to approve 8/11/21 meeting minutes. Motion carried.

4. **GSP Projects and Sustainable Yield Analysis – Urban Scenario**
   Amador first presented on the GSP Projects and Sustainable Yield Analysis. The presentation can be accessed at the STRGBA GSA website: www.strgba.org .

   - Ward asked if we didn't have a model, what other tools should we be developing to evaluate smaller scale projects and then be able to monitor the implementation of these projects? Amador responded that models are good for larger scale projects, but not as accurate for localized conditions. A model helps us to forecast and evaluate projects, but we have to supplement that with observed data from the monitoring networks.
   - Mensinger asked about the storm drain cross connection removal project. Would this mean taking water from the sewage farm or river and putting it in the ground? Amador said the goal would be to adjust the City of Modesto's infrastructure and modify some of their retention basins to allow water to seep into the aquifer system.
   - Mensinger also asked how would the Tuolumne River flood flows be captured and distributed? Amador responded that the Tuolumne River project would be a joint project between MID and TID. The goal is to capture the upper watershed's flood flow in the winter months, specifically January and February and then transfer those flows through La Grange and Modesto Reservoirs. The project goal is to utilize MID's conveyance network to apply these flood flows to the eastern portion of the basin.
   - Mensinger asked how would we capture and distribute Dry Creek flood flows? Amador replied that the Dry Creek Project is similar but much smaller in frequency and magnitude as the Tuolumne River project. The goal is to divert flood flows, using a series of small regulating weirs, into new recharge basins for direct recharge.
   - Mensinger asked why the model results showed reduction of demand in the City of Modesto but not in other cities? Amador responded we haven't received demand information from the other cities yet to incorporate into the model.
   - Mensinger stated that the reduction of 12,900 AF in urban demand due to conservation projects seemed high, and asked if that was correct? Amador responded that the number is based on 50-year demand projections from the UWMPs and adjusted for population growth outside of the City of Modesto.
   - Stevens asked if Scenario I include only supply-side reductions for urban areas? Amador responded that the scenario included both demand reduction and increase in supply.

- Stevens also asked if only supply-side reductions will be included in Scenarios II and III? Amador responded that both scenarios will include demand reductions.
- Stevens asked if the flood mitigation projects will benefit ag lands, what is the benefit to the basin as a whole, and will those projects help reduce demand in the non-district east? Amador replied that the focus of the projects is to benefit the basin as a whole. Stevens asked how will project costs be allocated if they benefit the whole basin but are directed toward those areas causing the problems? Thorburn responded that the modeling results will show where the projects are needed and costs will be allocated accordingly.
- Davids asked if the details for the projects and management actions and subsequent model results will be released within the next two months? Amador responded affirmatively.
- Davids also asked if City of Modesto demand reduction only applied to groundwater extraction and not surface water supply? Amador responded affirmatively.

5. **Monitoring Networks and Sustainable Management Criteria**
   Stanin followed up with a presentation on Monitoring Networks and Sustainable Management Criteria.

   - Mensinger asked if the eastern aquifer could be over drafted yet the overdraft not be observed in the 13 assigned monitoring wells? Stanin responded in the affirmative and added that for that very reason projects and management actions will be required. There are not many monitoring wells in the NDE, but extraction activities have resulted in groundwater declines in the OID service area. We anticipate the need for flexibility when water level declines are manifest in other areas of the aquifer.
   - Stevens asked how can we adjust MTs in the future without monitoring wells? Stanin responded that we could adjust the exceedance requirement by reducing the percentage of wells from 33% to 25%, for example. Several wells have already been impacted in the east yet there doesn't seem to be undesirable results occurring now even with groundwater levels at historic lows.

6. **Next Meeting**
   Special TAC meeting September 22, 2021 at 1:30 p.m. via Zoom

7. **Items too late for the agenda**
   N/A

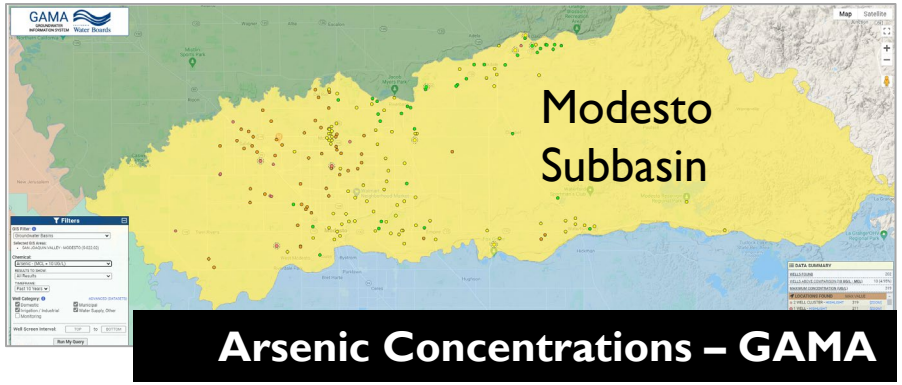
Sustainable Management Criteria For Degraded Water Quality and Review of Interim Milestones

Special Technical Advisory committee (TAC) Meeting

September 22, 2021

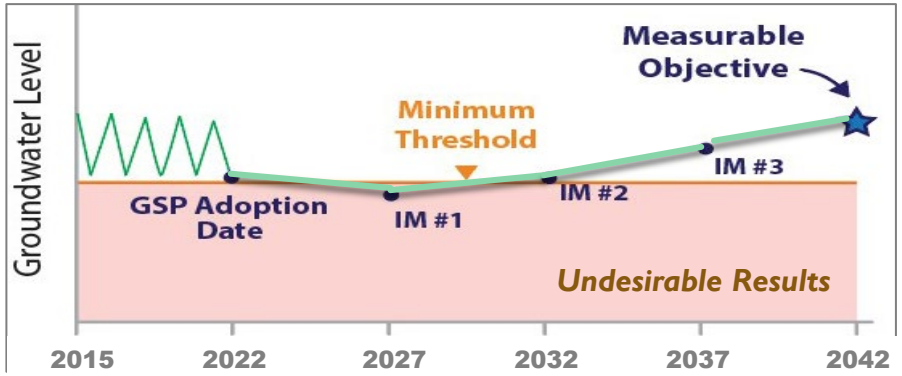
Presentation Outline

Consider Sustainable Management Criteria for Degraded Water Quality



Arsenic Concentrations – GAMA

Review Interim Milestones Approach and Consider related Management Actions



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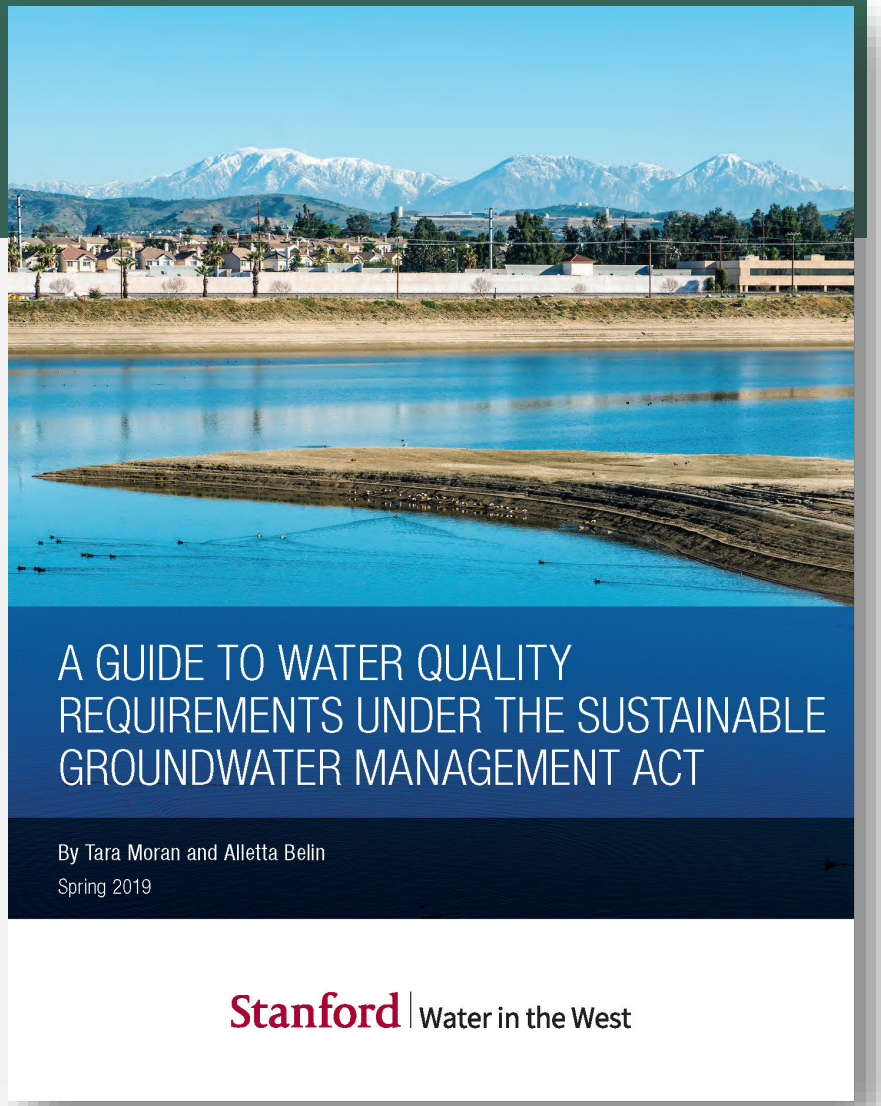
SGMA GUIDANCE DOCUMENT (MORAN AND BELIN, 2019)

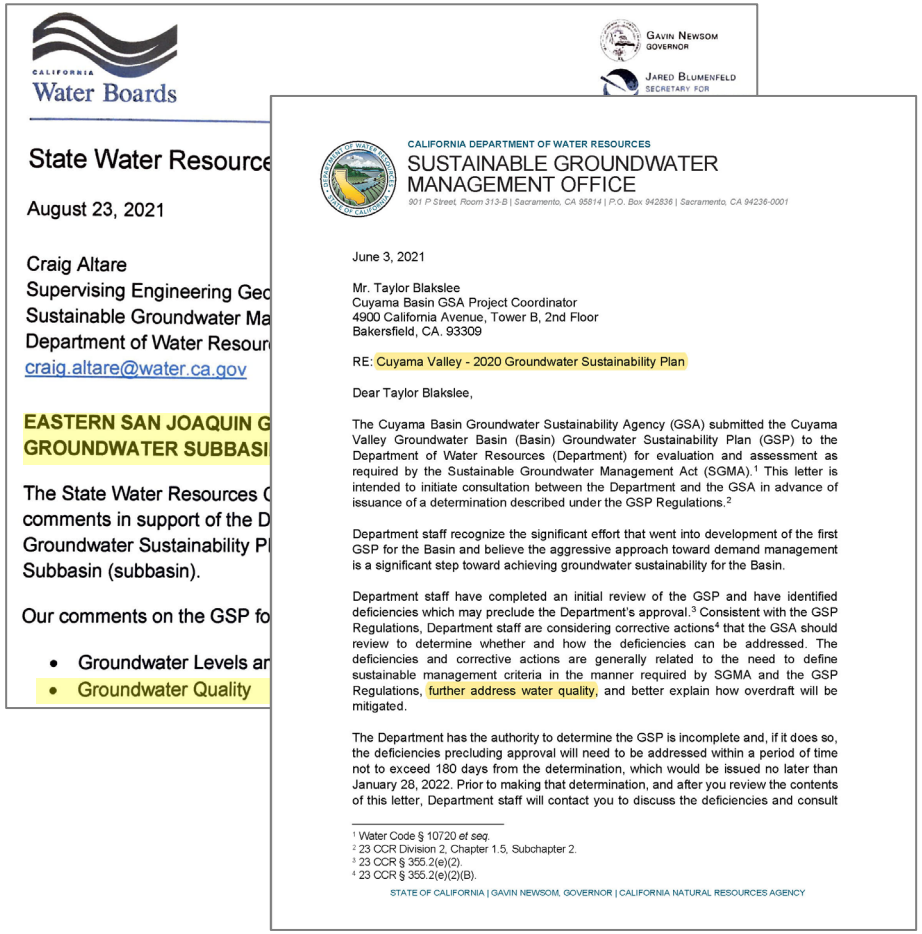
- CA Legislature designated SWRCB/RWQCB as principal state agencies with primary responsibility for groundwater quality.
- GSAs are not required to take over regulatory roles for water quality assigned to other regulatory agencies.
- GSAs are not responsible for fixing undesirable results for water quality that were already present before January 1, 2015.
- GSAs are recommended to confer with other regulatory agencies on any water quality undesirable results.
- GSAs are required to assess potential impacts on water quality from GSP projects or management actions.
- If adverse impacts could occur from GSA actions, GSAs should coordinate with water quality agencies regarding options to avoid or mitigate water quality problems.



TODD GROUNDWATER

Degraded Water Quality Indicator and Ongoing Water Quality Analyses by GSAs

- DWR Corrective Action letter and SWRCB comment letters on current GSPs provide insight on state agency interpretation.
- Identify water quality deficiencies in other GSPs that "may preclude" DWR approval.
- GSAs have authority to regulate groundwater levels and extractions – required to analyze potential impacts of levels/extractions on water quality going forward.
- Provide "cross-walk" between GSA management and primary water quality agencies.
- Include monitoring of all constituents of concern (e.g., exceedances of MCLs) that are "widespread."
- "GSAs may leverage existing programs that collect and disseminate water quality data and information."



California Water Boards

State Water Resource

August 23, 2021

Craig Altare
Supervising Engineering Geo
Sustainable Groundwater Ma
Department of Water Resour
craig.altare@water.ca.gov

EASTERN SAN JOAQUIN G
GROUNDWATER SUBBASI

The State Water Resources C
comments in support of the D
Groundwater Sustainability Pl
Subbasin (subbasin).

Our comments on the GSP fo

- Groundwater Levels ar
- Groundwater Quality

Gavin Newsom
Governor

Jared Blumenfeld
Secretary for

California Department of Water Resources
SUSTAINABLE GROUNDWATER MANAGEMENT OFFICE
901 P Street, Room 313-B | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

June 3, 2021

Mr. Taylor Blakslee
Cuyama Basin GSA Project Coordinator
4900 California Avenue, Tower B, 2nd Floor
Bakersfield, CA. 93309

RE: Cuyama Valley - 2020 Groundwater Sustainability Plan

Dear Taylor Blakslee,

The Cuyama Basin Groundwater Sustainability Agency (GSA) submitted the Cuyama Valley Groundwater Basin (Basin) Groundwater Sustainability Plan (GSP) to the Department of Water Resources (Department) for evaluation and assessment as required by the Sustainable Groundwater Management Act (SGMA).[1] This letter is intended to initiate consultation between the Department and the GSA in advance of issuance of a determination described under the GSP Regulations.[2]

Department staff recognize the significant effort that went into development of the first GSP for the Basin and believe the aggressive approach toward demand management is a significant step toward achieving groundwater sustainability for the Basin.

Department staff have completed an initial review of the GSP and have identified deficiencies which may preclude the Department's approval.[3] Consistent with the GSP Regulations, Department staff are considering corrective actions[4] that the GSA should review to determine whether and how the deficiencies can be addressed. The deficiencies and corrective actions are generally related to the need to define sustainable management criteria in the manner required by SGMA and the GSP Regulations, further address water quality, and better explain how overdraft will be mitigated.

The Department has the authority to determine the GSP is incomplete and, if it does so, the deficiencies precluding approval will need to be addressed within a period of time not to exceed 180 days from the determination, which would be issued no later than January 28, 2022. Prior to making that determination, and after you review the contents of this letter, Department staff will contact you to discuss the deficiencies and consult

[1] Water Code § 10720 *et seq.*
[2] 23 CCR Division 2, Chapter 1.5, Subchapter 2.
[3] 23 CCR § 355.2(e)(2).
[4] 23 CCR § 355.2(e)(2)(B).

STATE OF CALIFORNIA | GAVIN NEWSOM, GOVERNOR | CALIFORNIA NATURAL RESOURCES AGENCY

DRAFT

Modesto GSP Water Quality Database and Potential Constituents of Concern

- Microsoft Access DB with 27,625 water quality records for 1,373 wells
- 260 unique constituents (major anions/cations, nutrients, metals, organics)
- Historical and Current Periods: WY 1995 – 2015 and WY 2015 – 2019
- ***9 Potential* Constituents of Concern:**

  (based on GSA member agency expertise, technical team local knowledge, stakeholder comments, other subbasins)

  - **Arsenic**
  - **Boron – no MCL, not a drinking water concern; only one small elevated area in Modesto Subbasin**
  - **Dibromochloropropane (DBCP)**
  - **Nitrate**
  - **Tetrachloroethene (PCE)**
  - **Total Dissolved Solids (TDS)**
  - **1,2,3-Trichloropropane (TCP)**
  - **Uranium**
  - **Gross Alpha – City of Modesto data indicate uranium can be used for a surrogate**

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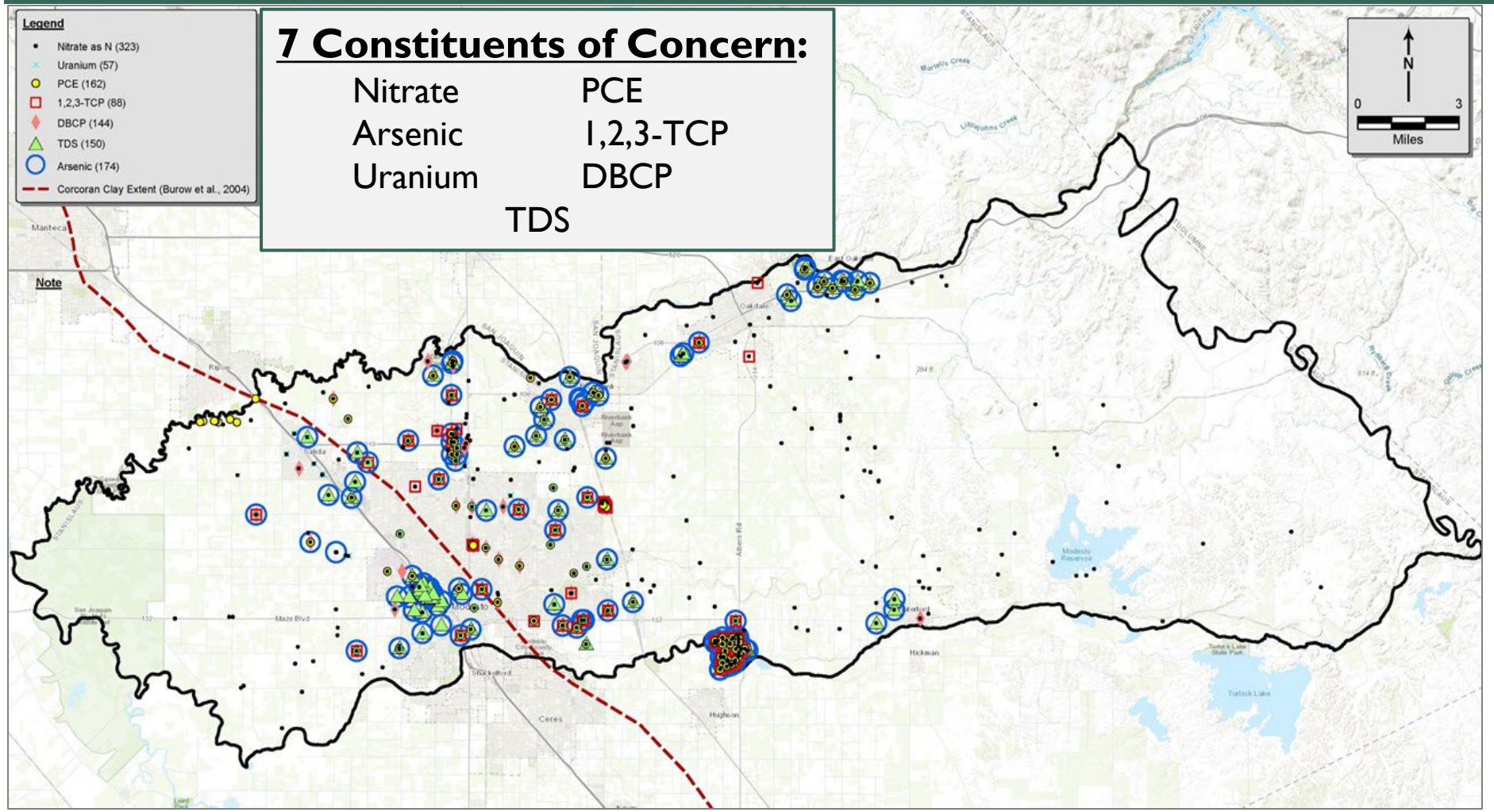
Water Quality Monitoring Sites
October 2019 – September 2020 (WY 2020)



- Over 300 wells sampled in WY 2020
- Leverage existing data
- Download annually from databases:
  - GeoTracker
  - GAMA
  - Water Quality Coalitions

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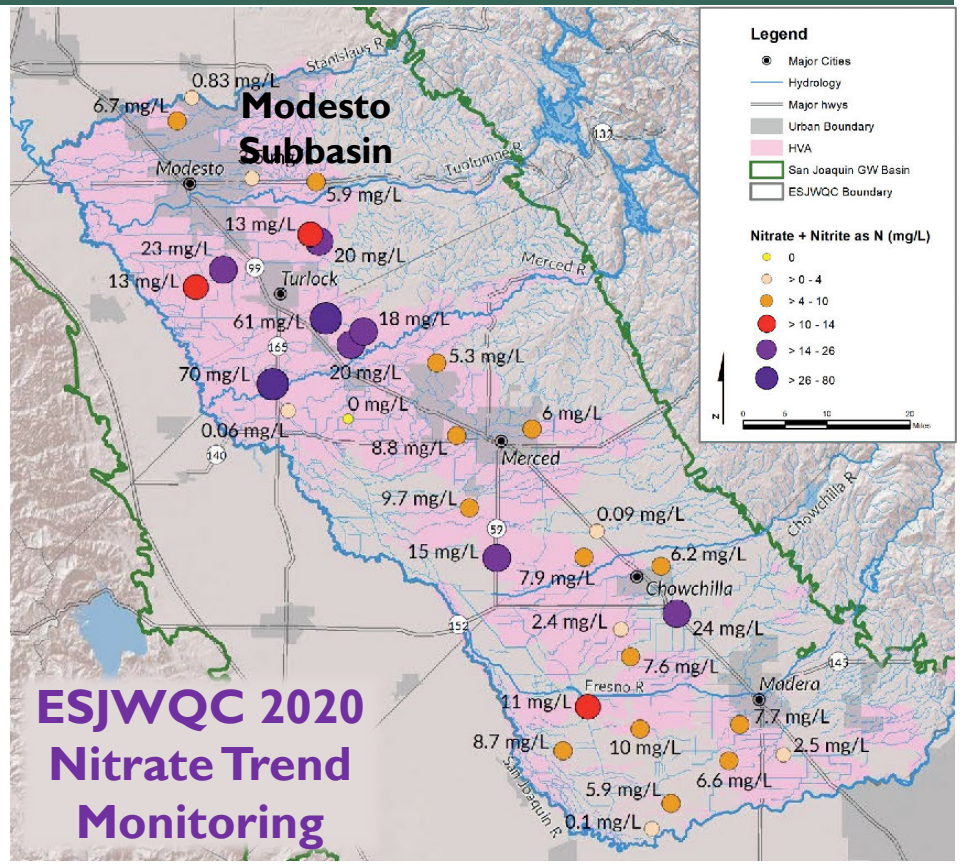
Water Quality Coalition Monitoring

- Eastern San Joaquin Water Quality Coalition (ESJWQC)
  - Covers entire Modesto Subbasin and adjacent subbasins
  - Coordination with *Valley Water Collaborative*, non-profit that operates Modesto Management Zone
- TDS and Nitrate database – Modesto Subbasin
  - Accessed for GSP water quality characterization
  - Data 1940s through 2014 – updates available
- Implementation of CV-SALTs and Nitrate Control Program provides ongoing data and mitigation



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Possible Modesto Subbasin Approach Consistent with Turlock Subbasin

	Undesirable Results (URs), Minimum Thresholds (MTs), and Measurable Objectives (MOs)
Degraded Water Quality	Undesirable Results are defined as significant and unreasonable adverse impacts to groundwater quality, as indicated by a new (first-time) exceedance of a constituent of concern, that is caused by GSA projects, management actions, or management of groundwater levels or extractions such that beneficial uses are affected and well owners experience an increase in operational costs.
	Minimum thresholds (MT) are set as the primary or secondary California maximum contaminant level (MCL) for each of the constituents of concern. Measurable objectives (MO) are set as the historical maximum concentration of each constituent of concern for each Principal Aquifer at each representative monitoring site.

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Technical Approach to Undesirable Results Analysis

1. Download water quality data annually for constituents of concern.
2. Identify any new (first-time) exceedance of an MT (primary or secondary MCLs).
3. Determine if exceedance is related to GSA activities:
   - Water level evaluation – Have water levels declined in areas of exceedances? Are other concentrations increasing in that Principal Aquifer? Can local concentrations be correlated to water levels for affected Principal Aquifers? Are beneficial uses and operational costs adversely affected?
   - Groundwater extraction evaluation – Have groundwater extractions contributed to the spread of constituents of concern? Are beneficial uses and operational costs adversely affected?
   - GSP Projects – How will each project impact water quality? (CEQA compliance may address)
4. Include water quality analyses in Annual Reports
5. If adverse water quality impacts occur, GSAs to confer and coordinate with CV Water Board (or other water quality agency) on options to lessen impacts (i.e., provide "cross-walk" among agencies)

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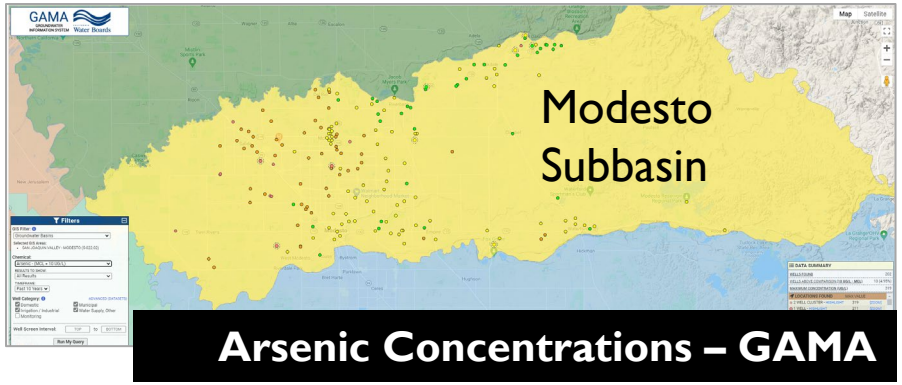
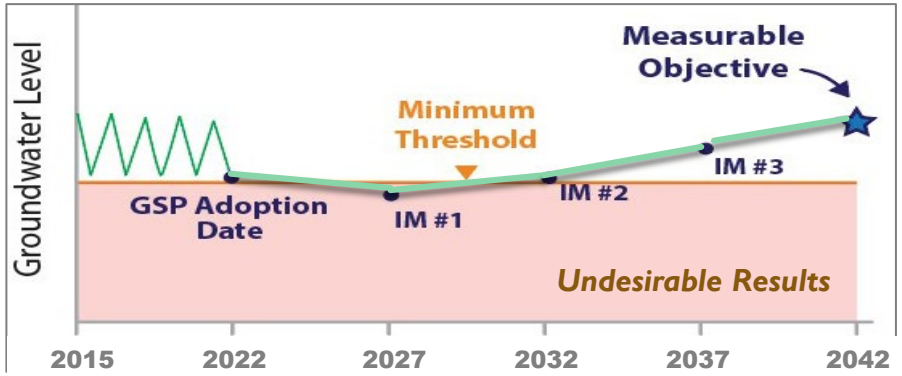
Presentation Outline

Consider Sustainable Management Criteria for Degraded Water Quality



Arsenic Concentrations – GAMA

Review Interim Milestones Approach and Consider related Management Actions



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Interim Milestones – Proposed Methodology

- Developed 2027 Interim Milestones (IMs) methodology using CASGEM wells in OID and Non-District East Management Areas (9 wells)
- Recognize that water levels in these areas may continue to decline before projects can affect a wide area of representative monitoring wells
- Assume a continuing rate of decline through the first five years of GSP implementation, if needed (conservative assumption to allow for a glide path)
- Added the total groundwater elevation decline from Fall 2013 to Fall 2020 (7 years) to the Fall 2020 measurement to define an IM
- Average decline of about 13 feet in 7 of the wells; about 36 feet in 2 Non-District East wells

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GSP Implementation Plan and management Actions

- Interim Milestones cannot be used to defer GSP implementation of projects and management actions
- GSP Implementation Plan will include:
  - Timing of projects and management actions
  - Criteria that would trigger implementation of each project
  - Implementation Plan will identify the projects and management actions that *must be initiated immediately in order to achieve the sustainability goal*
- Backstop: GSP Management Action to Reduce Groundwater Demand
  - Initiate if projects cannot be implemented and/or aquifer response is not sufficient to meet GSP criteria
  - Require in targeted areas to arrest aquifer declines
  - Allow for additional GSP authority to limit extractions as needed

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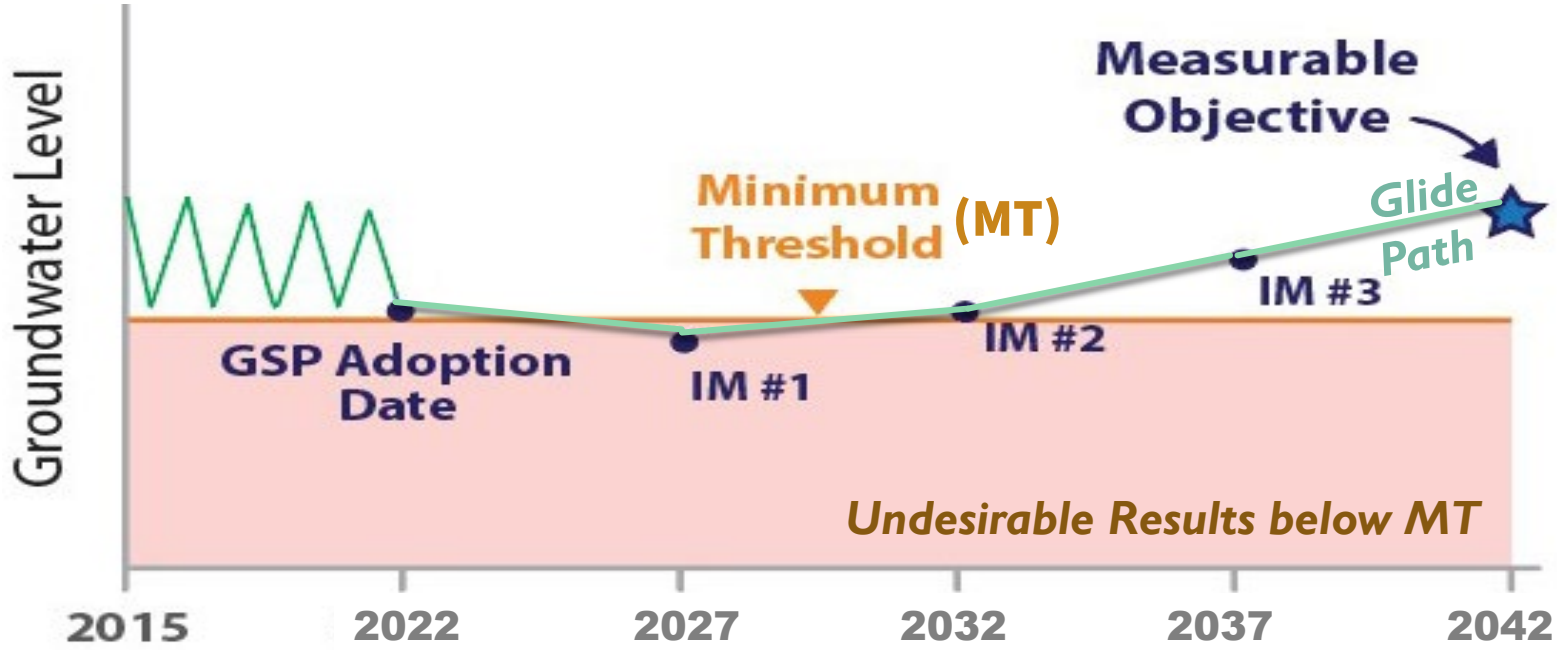
Interim Milestones – Proposed Approach

- IM #1 – 2027: water level declines before project benefits are observed
- IM #2 – 2032: set at the MT
- IM #3 – 2037: one-half distance between the MT and the MO



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NEXT STEPS

- Finalize Projects Analysis
- Release additional GSP chapters:
  - *Water Budget*
  - *Sustainable Management Criteria*
  - *Monitoring Networks*
- Finalize Management Actions