Stanislaus & Tuolumne Rivers Groundwater Basin Association
Groundwater Sustainability Agency
1231 11th Street | Modesto, CA 95354
Phone: (209) 526-7564 | Fax: (209) 526-7352
Email: strgba@mid.org

STRGBA GSA AGENDA

January 12, 2022 (1:30 p.m. – 3:00 p.m.)
Webinar Digital Platform or Phone Meeting
https://us02web.zoom.us/j/87846141611
By phone: 1-669-900-9128
Webinar ID: 878 4614 1611

This meeting is being conducted via webinar for all seven member agencies, pursuant to Executive Orders signed by Governor Gavin Newsom related to the ongoing COVID-19 pandemic, including provisions regarding the Brown Act. Members of the public and member agency staff may join the meeting utilizing Zoom's webinar feature is desired, or a phone number as provided in this Agenda. Members of the public will continue to have the opportunity to provide public input via the webinar or phone features. Members of the public may also email public comments by 3:00 p.m. on the day preceding the GSA meeting to: strgba.org. If public comments are timely submitted by email, then those comments will be identified during the public input section of the Agenda or during a specific agenda item if the agenda item is identified in the email. The Brown Act does not require a member of the public to state her or his name; please indicate in your email if you would like your name stated or if you want to remain anonymous.

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.

On your phone:

1. To join the meeting by phone, call the number published in the Agenda for the meeting.
2. Enter the Webinar ID published in the Agenda, then hit the # symbol.
3. All public attendees will enter the meeting muted.
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.

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

2. Topic: Remote Teleconferencing Participation [Action Item]
   Who: Gordon Enas, Committee
   Expected Outcome: Approval

3. 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.

4. Topic: Approve 12/8/21 Meeting Minutes [Action Item]
   Who: Eric Thorburn, Committee
   Expected Outcome: Approval

5. Topic: 2022 Annual Report [Action Item]
   Who: Gordon Enas, Committee
   Expected Outcome: Approval

6. Topic: GSP Adoption [Action Item]
   Who: Gordon Enas, Committee
   Expected Outcome: Approval

7. Topic: Budget and Schedule Update
   Who: Gordon Enas, Committee
   Expected Outcome: Discussion

8. Next Meeting
   February 9, 2022 at 1:30 p.m. via Zoom

9. Items too late for the agenda

AGENDA REPORT

GSA Meeting Date: January 12, 2022

Subject:	Brown Act Provisions for Remote Teleconferencing Participation in Meetings during a Declared State of Emergency.
Recommended Action:	Resolution making the following determination: Section 1. Recitals. The Recitals set forth in the attached resolution are true and correct and are incorporated into this Resolution by this reference. Section 2. Proclamation of Local Emergency. The Governing Body hereby proclaims that a local emergency exists throughout the GSA, and that the governing body meeting in person could present imminent risks to the health and safety of attendees due to the prevalence of the COVID-19 Pandemic in Stanislaus County and the State of California, such that the GSA reserves the right to continue virtual meetings and/or conduct in-person meetings consistent with local health guidance or duly issued orders. Section 3. Remote Teleconference Meetings. The Governing Body and its Chairman and designees of the GSA are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act. Section 5. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) February 11, 2022, or (ii) such time the Governing Body adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the Governing Body of the GSA may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.
Background and Discussion:	All meetings of the STRGBA GSA are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963) and related state laws and orders, so that any member of the public may attend either virtually or in-person as the case may be to participate and watch the GSA's governing body conduct GSA business. The Brown Act makes provisions for remote teleconferencing participation in meetings by members of a governing body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions, such as when a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558. It is further required that state or local officials have imposed or recommended measures to promote social

	distancing, or, the governing body meeting in person would present imminent risks to the health and safety of attendees. Such conditions now exist in the STRGBA GSA, specifically, a State of Emergency has been proclaimed pursuant to Government Code Section 8625 that the COVID-19 Pandemic has strained the State's healthcare system and workforce and that state and local health departments must use all available preventative measures to combat the spread of COVID-19. As a consequence of the declared emergency, the STRGBA GSA does hereby find that the governing body of the STRGBA GSA shall conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e) of section 54953, and that such governing bodies shall comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953.
Alternatives, Pros and Cons of Each Alternative:	Pros: Allow GSA meetings to continue to meet while taking all available preventative measures to combat the spread of COVID-19. Cons: Requiring GSA meetings to be held in-person would violate the proclaimed State of Emergency and potentially expose meeting attendees to COVID-19.
Concurrence:	The actions proposed by this resolution have already been adopted by several of the GSA member agencies.
Fiscal Impact:	Since GSA is currently holding all meetings by remote conferencing, the resolution will create no new or additional fiscal impact.
Recommendation:	Resolution making the following determination: Section 1. Recitals. The Recitals set forth in the attached resolution are true and correct and are incorporated into this Resolution by this reference. Section 2. Proclamation of Local Emergency. The Governing Body hereby proclaims that a local emergency exists throughout the GSA, and that the governing body meeting in person could present imminent risks to the health and safety of attendees due to the prevalence of the COVID-19 Pandemic in Stanislaus County and the State of California, such that the GSA reserves the right to continue virtual meetings and/or conduct in-person meetings consistent with local health guidance or duly issued orders. Section 3. Remote Teleconference Meetings. The Governing Body and its Chairman and designees of the GSA are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act. Section 5. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i)

	February 11, 2022, or (ii) such time the Governing Body adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the Governing Body of the GSA may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.
Attachments:	Supporting documents attached: ☒ Resolution ☐ Presentation ☐ Other supporting docs ☐ None attached *Note: Original contracts and agreements are housed in the GSA Secretary's Office, phone (209) 526-7360.*

Presenter	GSA Chairman
Gordon J Enas	Eric Thorburn
Gordon Enas, P.E.	Eric Thorburn, P.E.
1/7/2022	1/7/2022
Date Signed	Date Signed

AGENDA REPORT

D R A F T

RESOLUTION NO. 2022-01

RESOLUTION CONFIRMING A CONTINUING STATE OF EMERGENCY ARISING FROM THE STATE OF CALIFORNIA AND STANISLAUS COUNTY ORDERS DUE TO THE COVID-19 PANDEMIC AND FURTHER AUTHORIZING REMOTE CONFERENCE MEETINGS OF THE STRGBA GSA'S GOVERNING BODY PURSUANT TO THE PROVISIONS OF THE BROWN ACT AND DULY ISSUED LAWS AND ORDERS FROM THE STATE RELATED TO THE PANDEMIC AND OPERATIONS FOR GOVERNING BODY MEETINGS.

WHEREAS, the STRGBA GSA is committed to preserving and nurturing public access and participation in meetings of its governing body; and

WHEREAS, all meetings of the STRGBA GSA are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963) and related state laws and orders, so that any member of the public may attend either virtually or in-person as the case may be to participate and watch the GSA's governing body conduct GSA business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, a proclamation is made when there is an actual incident, threat of disaster, or extreme peril to the safety of persons and property within the jurisdictions that are within the GSA's boundaries, caused by natural, technological, or human-caused disasters; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, such conditions now exist in the GSA, specifically, a State of Emergency has been proclaimed pursuant to Government Code Section 8625 that the COVID-19 Pandemic has strained the State's healthcare system and workforce and that state and local health departments must use all available preventative measures to combat the spread of COVID-19; and

WHEREAS, since most restrictions from the State of California's Blueprint for a Safer Economy were lifted on June 15, 2021, the average daily case rate of COVID-19 in Stanislaus County has increased 9-fold and the testing positivity rate has risen 4-fold, though those conditions may change daily and weekly; and

WHEREAS, as a consequence of the declared emergency, the STRGBA GSA does hereby find that the governing body of the GSA shall conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e) of section 54953, and that such legislative bodies shall comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953; and

WHEREAS, the GSA reserves the option to attend in-person meetings consistent with local health officer directives or to continue a practice of remote meetings that still allow multiple options for public participation.

NOW, THEREFORE, THE GOVERNING BODY OF THE STANISLAUS AND TUOLUMNE RIVERS GROUNDWATER BASIN ASSOCIATION GROUNDWATER SUSTAINABILITY AGENCY DOES HEREBY RESOLVE AS FOLLOWS,

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Proclamation of Local Emergency. The Governing Body hereby proclaims that a local emergency exists throughout the GSA, and that the governing body meeting in person could present imminent risks to the health and safety of attendees due to the prevalence of the COVID-19 Pandemic in Stanislaus County and the state, such that the GSA reserves the right to continue virtual meetings and/or conduct in-person meetings consistent with local health guidance or duly issued orders.

Section 3. Remote Teleconference Meetings. The governing body and its Chairman and designees of the GSA are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 5. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) February 11, 2022, or (ii) such time the Governing Body adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the legislative bodies of the GSA may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

Stanislaus & Tuolumne Rivers Groundwater Basin Association
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MEETING MINUTES

December 8, 2021 (1:30 p.m. – 2:00 p.m.)

The meeting was called to order at 1:32 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:

Oakdale Irrigation District:	Eric Thorburn
City of Modesto:	Miguel Alvarez
City of Oakdale:	Michael Renfrow
City of Riverbank:	Michael Riddell

   Other Attendees:

Phyllis Stanin, Todd Groundwater	Samantha Wookey, MID
Liz Elliott, Todd Groundwater	
Alexis Stevens	Stacy Henderson
Bill Fogarty	Hilary Reinhard
Khandriale Clark	John Mauterer
Valerie Kincaid	Spenser Hager
Bill Hudelson	Dana Ferreira
John Davids	Jeff Black
Leigh Siracusano	Louie Brichetto
Amanda Peisch-Derby	Allison & Dave Boucher
Emily Sheldon	Mikayla Tran
Bill Schwandt	John Mensinger

2. **Business from the Public**
   Davids commended member agencies and consultant team on the completion of the GSP.

3. **Approve 11/10/21 Meeting Minutes [Action item]**
   Renfrow moved, 2nd by Riddell, to approve 11/10/21 meeting minutes. Motion carried.

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4. **Remote Teleconferencing Participation**
   Renfrow moved, 2nd by Alvarez, to approve Remote Teleconferencing Participation resolution. Motion carried.

5. **Budget and Schedule Update**
   Thorburn reported that the Todd Groundwater consultant team has expended approximately 83% of budget and 97% of the time scheduled through October 31.

6. **Public Outreach Update**
   Wookey stated Draft GSP is available on the strgba.org website. She stated there's one week left to submit public comments. MID Board of Directors are holding a public hearing on 12/14/21 to adopt the draft GSP.

   - Riddell advised the group that GSP would go to council members for adoption on 12/14/21.
   - Alvarez advised that City of Modesto will be having a public hearing and adoption on 12/14/21. Thorburn advised the same.
   - Fogarty asked if there will be further explanation of the data written in the GSP. Thorburn stated there are some presentations that will explain more. Riddell stated he will be giving a presentation at the City of Riverbank public hearing.
   - Henderson asked questions about funding sources left blank in the GSP. Thorburn stated there will be filling in the blanks before official submittal. Henderson asked if there would be discussion in a public setting regarding assessments or fees imposed upon landowners.
   - Boucher asked if direct recharge is described in more detail somewhere? Stanin gave explanation of direct recharge.

7. **GSP Update**
   Stanin stated public comment period is ending. The GSA is putting final touches on the GSP and will be posted to the website prior to adoption by the GSA.

8. **Next meeting**
   January 12, 2022 at 1:30 p.m. via Zoom

AGENDA REPORT

GSA Meeting Date: January 12, 2022

Subject:	Scope and Budget for 2022 Annual Report.
Recommended Action:	Resolution adopting the scope of work and budget for the 2022 Annual Report and authorizing the City of Modesto to contract with Todd Groundwater for the preparation of the report.
Background and Discussion:	In August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (SGMA) "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)). SGMA requires GSAs to submit annual reports to the Department of Water Resources by April 1 of each year following adoption of a GSP. The Annual Report must include information to demonstrate "whether the Plan (i.e. GSP) is being implemented in a manner that will likely achieve the sustainability goal for the basin" (CCR § 355.8). In February 2017, the STRGBA GSA member agencies entered into a Memorandum of Understanding (MOU) which establishes a Committee made up of representatives from each member agency. The Committee is authorized to prepare annual budgets, execute and administer contracts, and to develop and implement activities designed to achieve the objectives of SGMA. The MOU also requires that each member agency be responsible for its proportionate share of the funding requirements of the GSA. On November 23, 2021, at the request of City of Modesto, Todd Groundwater prepared a scope of work and budget to prepare the 2022 Annual Report and update the C2VSim-TM groundwater model. The total cost to prepare the report is $220,016 with each of the seven STRGBA member agencies along with the Tuolumne County GSA required to pay an equal 12.5% (1/8) share of $27,502. Stanislaus County will also be responsible for the 12.5% (1/8) cost-share amount applicable to the Tuolumne County GSA and coordinating with Tuolumne County GSA for reimbursement.
Alternatives, Pros and Cons of Each Alternative:	1. Do Nothing – Cons: Does not comply with State law, not eligible for DWR grant funding, liable for costs associated with DWR engagement of 3rd party to prepare plan; Pros: No staff time or consultant costs. 2. Authorize Annual Report – Cons: Staff time and consultant costs; Pros: Complies with State law, eligible for DWR grant funding, demonstrates unified long-term water resource planning with other STRGBA GSA member agencies.
Concurrence:	The actions proposed by this resolution have already been approved by each of the GSA member agencies.

AGENDA REPORT

Fiscal Impact:	Each of the seven STRGBA member agencies along with the Tuolumne County GSA will pay approximately 12.5% (1/8), or $27,502, of the total cost to prepare the Annual Report. Stanislaus County will also be responsible for the 12.5% (1/8) cost-share amount applicable to the Tuolumne County GSA and coordinating with Tuolumne County GSA for reimbursement.
Recommendation:	Resolution adopting the scope of work and budget for the 2022 Annual Report and authorizing the City of Modesto to contract with Todd Groundwater for the preparation of the report.
Attachments:	Supporting documents attached: ☒ Resolution ☐ Presentation ☐ Other supporting docs ☐ None attached *Note: Original contracts and agreements are housed in the GSA Secretary's Office, phone (209) 526-7360.*

Presenter	GSA Chairman
Gordon J Enas	Eric Thorburn
Gordon Enas, P.E.	Eric Thorburn, P.E.
1/7/2022	1/7/2022
Date Signed	Date Signed

AGENDA REPORT

D R A F T

RESOLUTION NO. 2022-02

RESOLUTION ADOPTING THE SCOPE OF WORK AND BUDGET FOR THE 2022 ANNUAL REPORT AND AUTHORIZING THE CITY OF MODESTO TO CONTRACT WITH TODD GROUNDWATER FOR THE PREPARATION OF THE REPORT.

WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (SGMA) "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)); and

WHEREAS, SGMA requires GSAs to submit annual reports to the Department of Water Resources by April 1 of each year following adoption of a GSP; and

WHEREAS, SGMA requires that the Annual Report include information to demonstrate "whether the Plan (i.e. GSP) is being implemented in a manner that will likely achieve the sustainability goal for the basin" (CCR § 355.8); and

WHEREAS, the STRGBA GSA member agencies entered into a Memorandum of Understanding (MOU) which establishes a Committee made up of representatives from each member agency; and

WHEREAS, the Committee is authorized to prepare annual budgets, execute and administer contracts, and develop and implement activities designed to achieve the objectives of SGMA; and

WHEREAS, the MOU also requires that each member agency be responsible for its proportionate share of the funding requirements of the GSA; and

WHEREAS, the STRGBA GSA has coordinated with the Tuolumne County GSA to develop a single, coordinated GSP for the Modesto Subbasin; and

WHEREAS, on November 23, 2021, at the request of City of Modesto, Todd Groundwater prepared a scope of work and budget to prepare the 2022 Annual Report and update the C2VSim-TM groundwater model; and

WHEREAS, the total cost to prepare the 2022 Annual Report is $220,016 with each of the seven STRGBA GSA member agencies paying an equal 12.5% (1/8) share of $27,502; and

WHEREAS, Stanislaus County will pay an additional 12.5% (1/8) share of $27,502 on behalf of the Tuolumne County GSA.

NOW, THEREFORE, THE GOVERNING BODY OF THE STANISLAUS AND TUOLUMNE RIVERS GROUNDWATER BASIN ASSOCIATION GROUNDWATER SUSTAINABILITY AGENCY DOES HEREBY ADOPT THE SCOPE OF WORK AND BUDGET FOR THE 2022 ANNUAL REPORT AND AUTHORIZES THE CITY OF MODESTO TO CONTRACT WITH TODD GROUNDWATER FOR THE PREPARATION OF THE REPORT.

Groundwater Sustainability Plan Public Hearing and Adoption

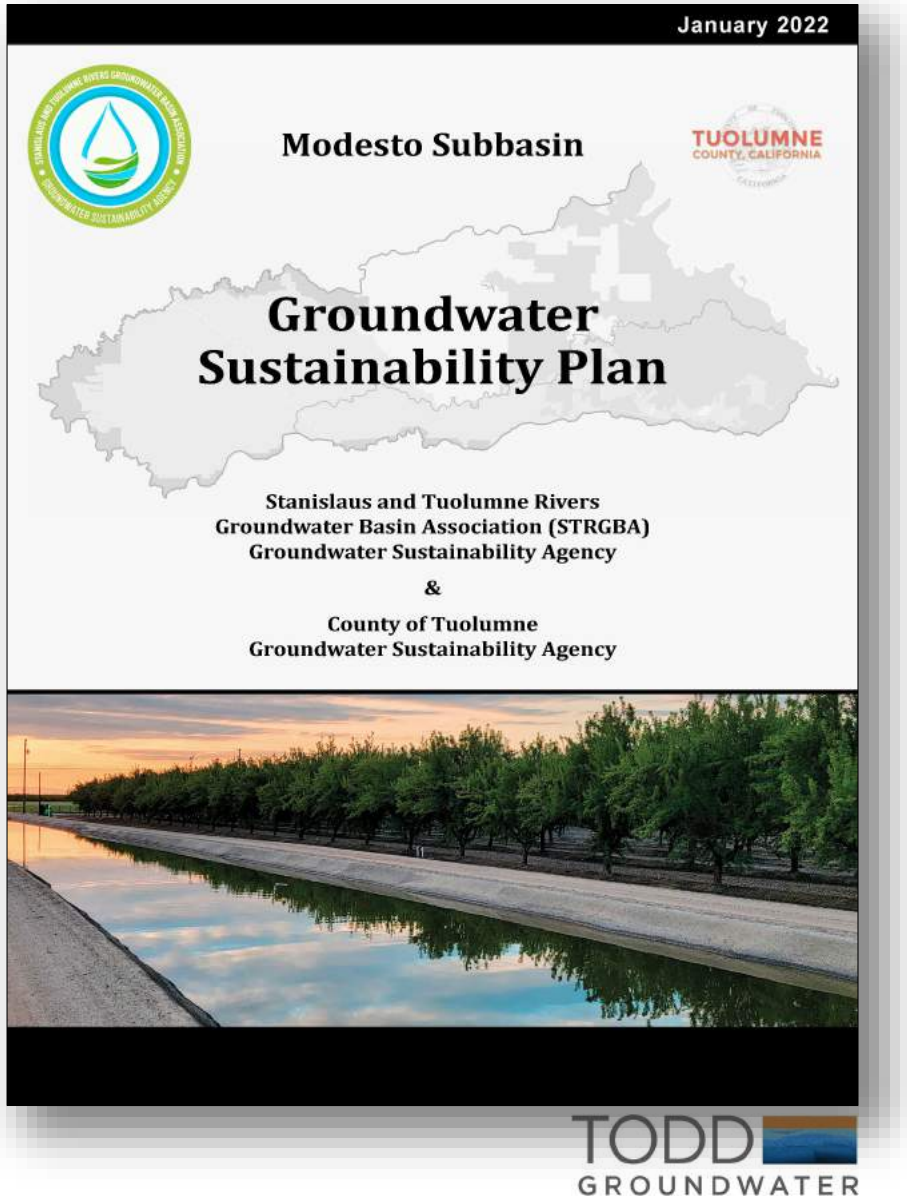
STRGBA GSA Meeting

January 12, 2022

Presentation Outline

Administrative and Technical Edits to the GSP

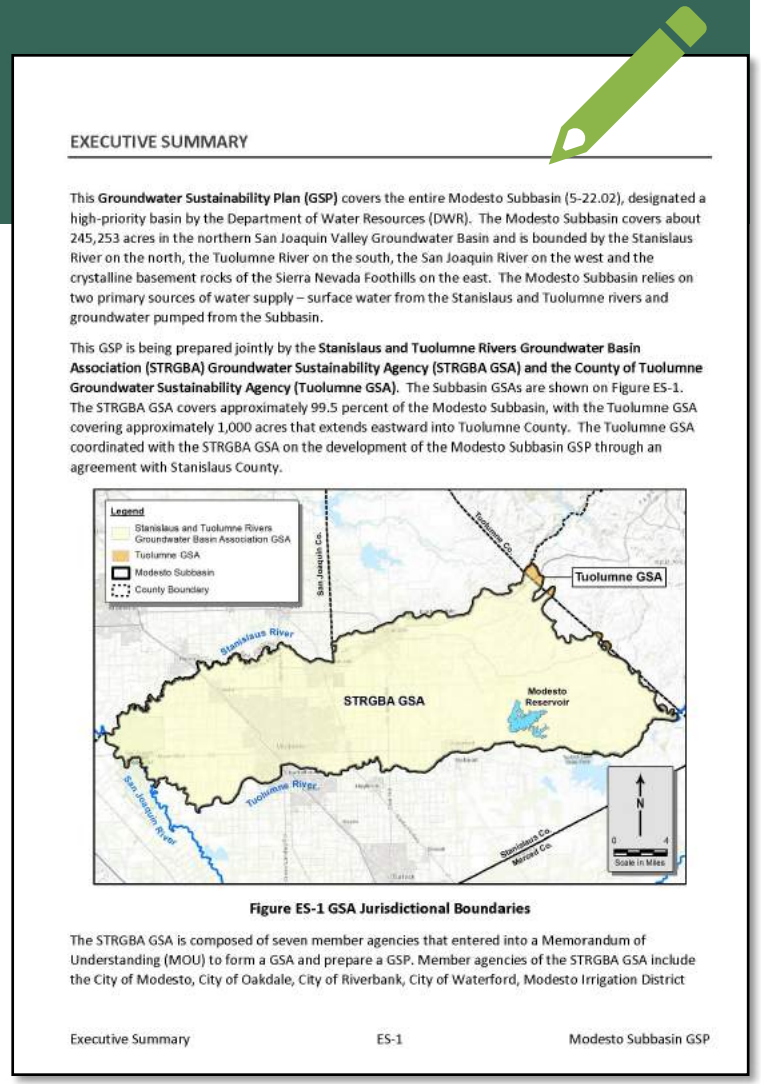
Responses to Public Comments



TODD GROUNDWATER

GSP Executive Summary

- Requirements for Executive Summary:
  - Written in "plain language"
  - Provide overview of the GSP
  - Describe groundwater conditions in the Subbasin
- Captures key information from GSP chapters



EXECUTIVE SUMMARY

This **Groundwater Sustainability Plan (GSP)** covers the entire Modesto Subbasin (5-22.02), designated a high-priority basin by the Department of Water Resources (DWR). The Modesto Subbasin covers about 245,253 acres in the northern San Joaquin Valley Groundwater Basin and is bounded by the Stanislaus River on the north, the Tuolumne River on the south, the San Joaquin River on the west and the crystalline basement rocks of the Sierra Nevada Foothills on the east. The Modesto Subbasin relies on two primary sources of water supply – surface water from the Stanislaus and Tuolumne rivers and groundwater pumped from the Subbasin.

This GSP is being prepared jointly by the **Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRGBA) Groundwater Sustainability Agency (STRGBA GSA) and the County of Tuolumne Groundwater Sustainability Agency (Tuolumne GSA)**. The Subbasin GSAs are shown on Figure ES-1. The STRGBA GSA covers approximately 99.5 percent of the Modesto Subbasin, with the Tuolumne GSA covering approximately 1,000 acres that extends eastward into Tuolumne County. The Tuolumne GSA coordinated with the STRGBA GSA on the development of the Modesto Subbasin GSP through an agreement with Stanislaus County.

Figure ES-1 GSA Jurisdictional Boundaries

The STRGBA GSA is composed of seven member agencies that entered into a Memorandum of Understanding (MOU) to form a GSA and prepare a GSP. Member agencies of the STRGBA GSA include the City of Modesto, City of Oakdale, City of Riverbank, City of Waterford, Modesto Irrigation District

TODD GROUNDWATER

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GSP APPENDICES

A. NOI to Prepare GSP, MOU

B. GSP Adoption

C. C2VSimTM Integrated Water Resources Model Documentation

D. GDE Analysis, Mapes Ranch

E. Outreach Material

F. Hydrographs for Representative Monitoring Network Wells

G. Water Quality Monitoring Network

7 appendices

- Technical
- Outreach
- Agreements/ Resolutions

TODD GROUNDWATER

DRAFT

GSP Revisions

- Incomplete text, consistency, clarifications, formatting, cleanup
- Additional TAC comments, recent information on costs
- Edits to respond to public comments
- Summary of Revisions:
  - Chapter 1 – Implementation costs, Plan Manager
  - Chapter 2 – Domestic Wells, updates to ILRP
  - Chapter 3 – Updates - contour map, groundwater in storage, land subsidence, Interconnected Surface Water (maps), GDE analysis
  - Chapter 4 – DACs, population
  - Chapter 8 – Additional details for projects and costs
  - Chapter 9 – Implementation funding

TODD GROUNDWATER

DRAFT

Materials Posted on website

GSP - Stanislaus and Tuolumne Rivers Groundwater Basin Association GSA (strgba.org/Home/GSP)

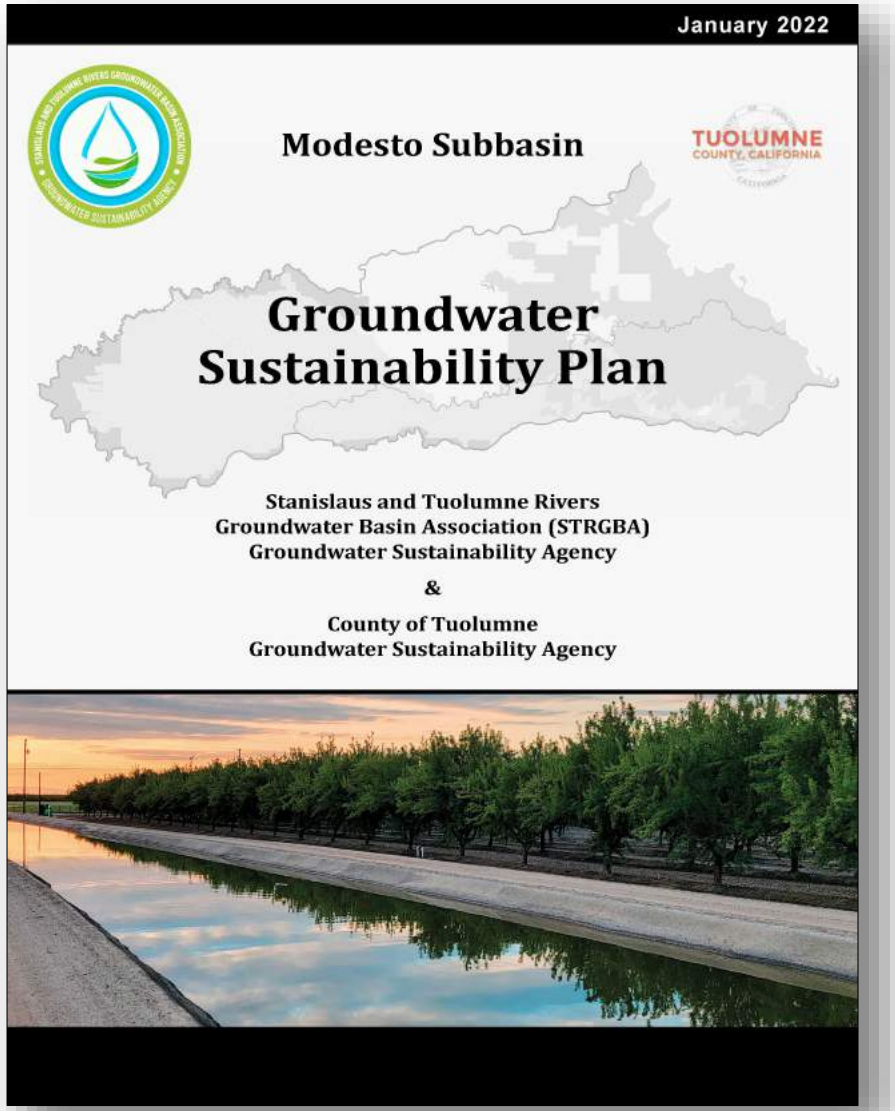
TODD GROUNDWATER

DRAFT

Presentation Outline

Administrative and Technical Edits to the GSP

Responses to Public Comments



TODD GROUNDWATER

Received 11 Public Comment letters

- Mr. Vance C. Kennedy
- National Marine Fisheries Service
- Provost & Pritchard (2 letters)
- Somach, Simmons, and Dunn
- Tuolumne River Conservancy
- V. A. Rodden
- Stacy L. Henderson (2 letters)
- Tuolumne River Trust & CA Sportfishing Protection Alliance
- The Nature Conservancy, Union of Concerned Scientists, Audubon-CA, Clean Water Action, and Local Government Commission

TODD GROUNDWATER

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PUBLIC COMMENTS - TOPICS

Organized letters into 120 separate comments on a wide variety of topics:

- Beneficial uses / Human Right to Water / Public Trust resources / domestic wells / benefits to DACs / drinking water / SMC for water levels and water quality
- Interconnected SW / instream habitat / water levels used for MTs / GDEs / beneficial aspects of flood releases / adverse impacts from flooding
- Recharge projects /environmental benefits / floodplain inundation / out-of-basin partners (SFPUC) / flood control
- Projects versus demand reduction / schedule
- GSP funding – administrative costs / projects cost / grants / fee structures in other subbasins / transfers across subbasin / revenue from projects
- Management areas / varied conditions across Subbasin / zone budgets / funding by management area
- Need for more monitoring (subsidence) / Wells in NDE MA / no plan for data gaps
- Climate change / water planning / aquifer fracking

TODD GROUNDWATER

DRAFT

Process for Responding to Public comments

- Comment/Response Table in outreach materials (Appendix E)

Author	CIN	Comment	Comment Response
Somach, Simmons, and Dunn	SSD-001	I want to repeat the question that I raised with regard to the decision to combine all of the "Non-District Agriculture" (NDA) on both the east and west sides of the basin into one zone. Given the riparian and licensed water users located on the west side, who pump out of both the Tuolumne and Stanislaus Rivers, compared with the east side's almost complete dependence on groundwater, lumping these two areas into one zone seems ill advised. This may have the effect of not only masking the magnitude of deficit from NDA on the east side, but doing so to the detriment of those that played no role in the creation of that deficit. The groundwater conditions in these two areas vary drastically. The groundwater table in the west side is so high, groundwater is pumped so that the land can be farmed. On the east side, however, the groundwater is found at deeper depths and, for the most part, is the exclusive water source. With all of this in mind, I would again urge further consideration of this issue.	Based on this and simliar comments from TAC members and stakeholders, the NDA areas were later separated into Non-District East (NDE) and Non-District West (NDW). Based on this division, the specific undesirable results related to the NDE areas could be analyzed and targeted for GSP project development.
Somach, Simmons, and Dunn	SSD-002	I think it would be helpful to see further analysis of the east and west sides within the boundaries of the districts (Modesto Irrigation District and Oakdale Irrigation District).	The delination of Management Areas based on water sources was sufficient to identify how best to optimize projects and management actions. The areas without reliable surface water supply (NDE) were determined to be the most unsustainable with respect to GSP compliance.
Tuolumne River Conservancy	TRC-001	We are concerned that the environmental beneficial uses of flood releases have not been considered. The river needs flooding to rejuvenate the riparian forest, flush invasive weeds, provide habitat for juvenile salmonids, and refresh the spawning riffles. Each of these needs could be negatively impacted if the flood releases are not made with these needs in mind. Gravel (spawning rock) must move each year to keep it clean of sand and silt. The gravel will begin to move when the releases are bank full (5,000 – 7,000 cfs) for several days. Therefore, flood releases are critical to the health of the fishery in many different ways.	As described in Section 9.2.3.1.1, Under the current Final Environmental Impact Statement for the relicensing of Don Pedro Reservoir, there is estimated to be approximately 1,500,000 AF of surface water in Wet WYs and 620,000 AF of surface water in Above Normal WYs in the Tuolumne River above and beyond that necessary to meeting existing customer demands (all Tuolumne River Partners) and the recommended instream flow obligations. As a result, 20,000 AF of Tuolumne River surface water to applicable NDE areas during the non-growing season amounts to approximately 1% and 3% of available surface water supply respectively, for Wet and Above Normal WYs. Thes relatively small volumes are not anticipated to adversely impacts flood releases alon gthe channel and may have benefits for better managing aderse impacts along the Lower Tuolumne River from flooding.
Tuolumne River Conservancy	TRC-002	This document assumes water above the current customer demands and the "recommended" instream flow obligations, is available. It is unwise to commit flows to a new customer base. The license can be reopened and climate change is only one possible reason. The flows determined adequate at this point in time may be determined to be inadequate in the future.	The GSP does not commit any member agency to make surface water available to a new customer base. Rather the GSP describes a suite of projects that if implemented will help bring groundwater aquifers in the subbasin back to levels needed for long-term sustainability. As far as water availability, there have been several years historically where the Modesto and Turlock Irrigation District's for example, released large volumes of water, over 400 TAF on average, into the Tuolumne River between November and February above and beyond any in-stream flow requirements.

TODD GROUNDWATER

DRAFT

GSP Adoption

- GSP is a plan; represents the beginning of active management to achieve and maintain groundwater sustainability
- GSP identifies steps for implementation
- Improves data and knowledge over time
- Allows for adaptive management as conditions change
- Provides ongoing opportunities for outreach and stakeholder engagement
- Submit to DWR by January 31, 2022; additional 75-day public comment period after submittal
- 1st Annual Report due April 1, 2022

TODD GROUNDWATER

DRAFT

QUESTIONS?

EXECUTIVE SUMMARY

This **Groundwater Sustainability Plan (GSP)** covers the entire Modesto Subbasin (5-22.02), designated a high-priority basin by the Department of Water Resources (DWR). The Modesto Subbasin covers about 245,253 acres in the northern San Joaquin Valley Groundwater Basin and is bounded by the Stanislaus River on the north, the Tuolumne River on the south, the San Joaquin River on the west and the crystalline basement rocks of the Sierra Nevada Foothills on the east. The Modesto Subbasin relies on two primary sources of water supply – surface water from the Stanislaus and Tuolumne rivers and groundwater pumped from the Subbasin.

This GSP is being prepared jointly by the **Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRGBA) Groundwater Sustainability Agency (STRGBA GSA) and the County of Tuolumne Groundwater Sustainability Agency (Tuolumne GSA)**. The Subbasin GSAs are shown on Figure ES-1. The STRGBA GSA covers approximately 99.5 percent of the Modesto Subbasin, with the Tuolumne GSA covering approximately 1,000 acres that extends eastward into Tuolumne County. The Tuolumne GSA coordinated with the STRGBA GSA on the development of the Modesto Subbasin GSP through an agreement with Stanislaus County.

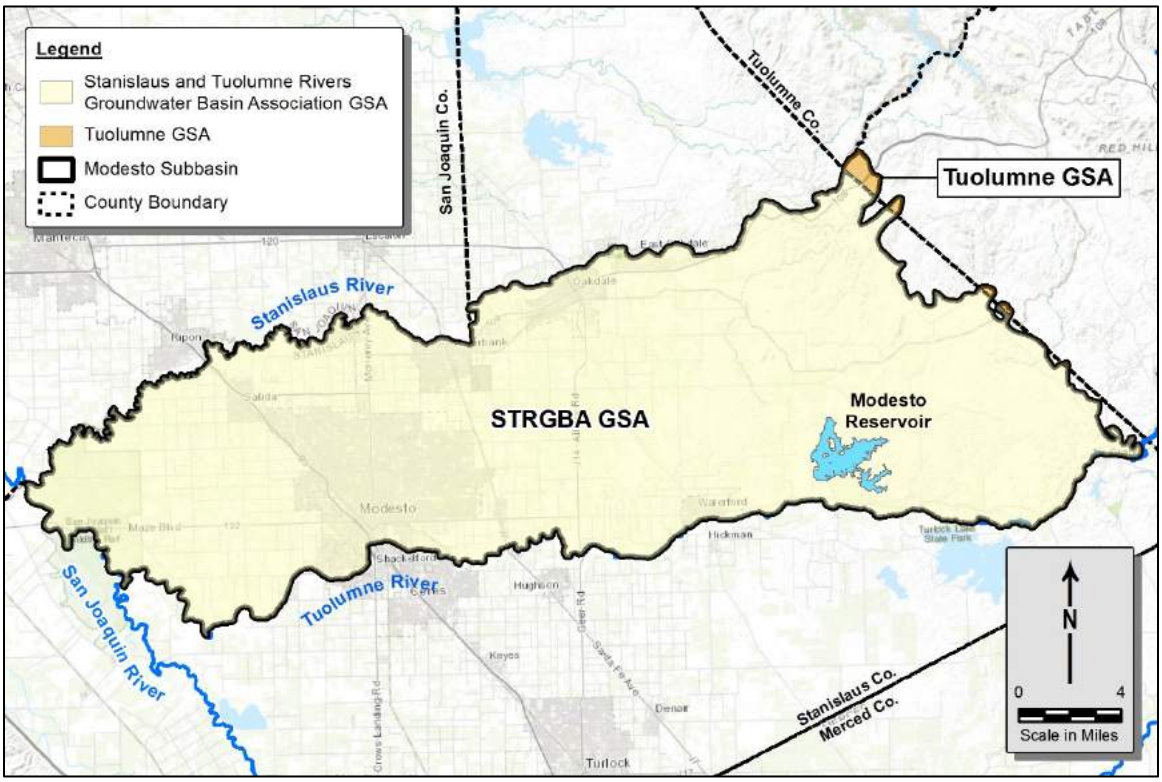


Figure ES-1 GSA Jurisdictional Boundaries

The STRGBA GSA is composed of seven member agencies that entered into a Memorandum of Understanding (MOU) to form a GSA and prepare a GSP. Member agencies of the STRGBA GSA include the City of Modesto, City of Oakdale, City of Riverbank, City of Waterford, Modesto Irrigation District

(MID), Oakdale Irrigation District (OID), and Stanislaus County. Service areas of these agencies in the Modesto Subbasin are shown on Figure ES-2. Many GSA member agencies have service areas in adjacent subbasins providing coordination for GSPs across the northern San Joaquin Valley.

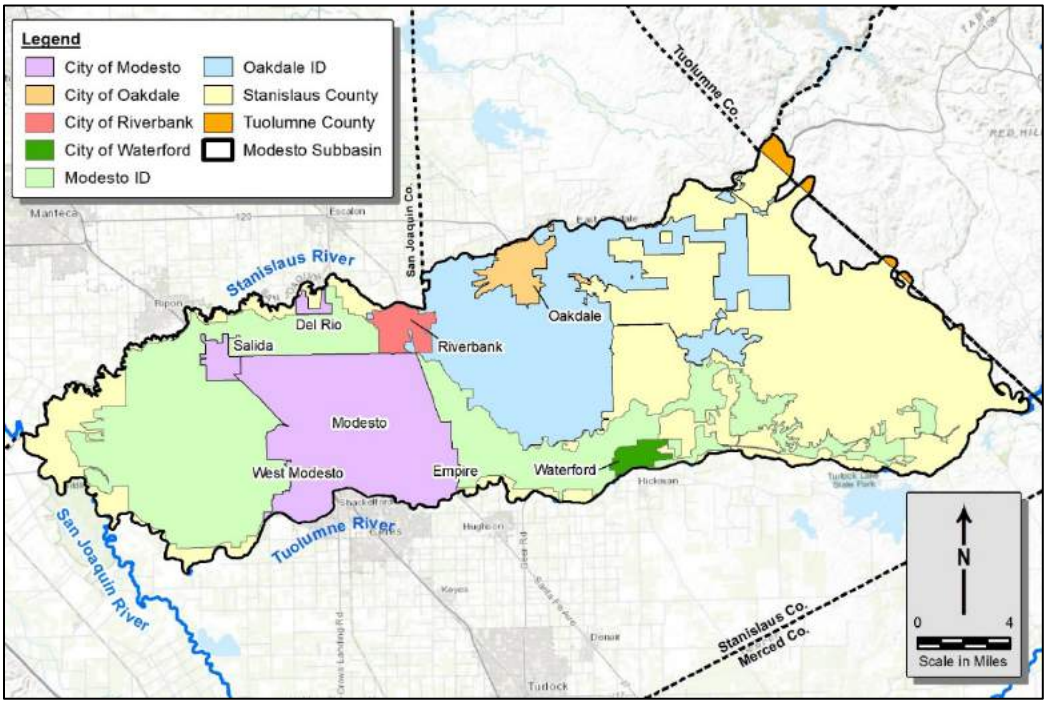


Figure ES-2 GSA Member Agency Jurisdictional Boundaries

GSA member agencies also represent stakeholders in disadvantaged areas in the Subbasin including the City of Modesto, City of Oakdale, City of Waterford, Stanislaus, and Tuolumne counties (Figure ES-3).

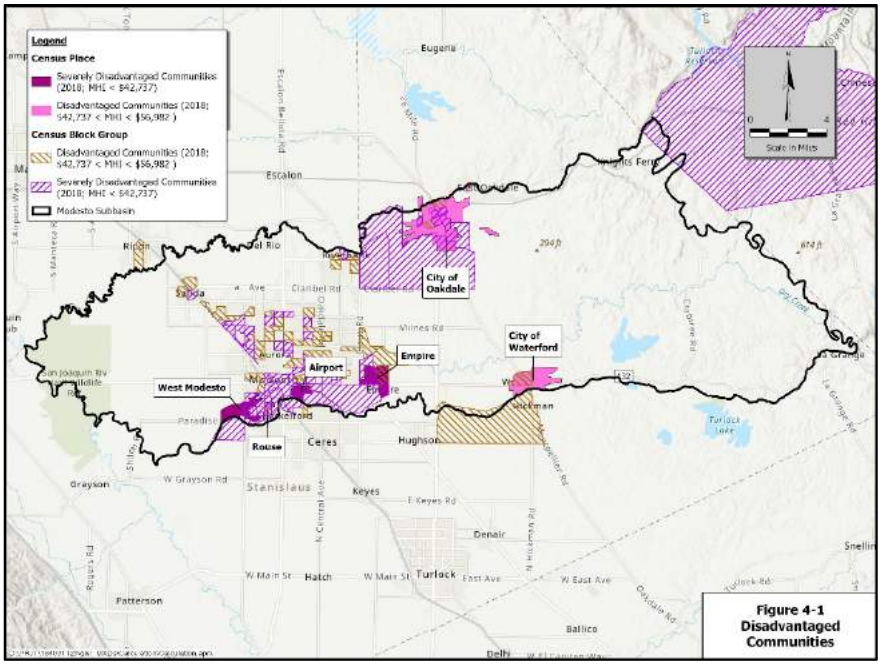


Figure ES-3 Disadvantaged Communities in the Modesto Subbasin

About 64 percent of the Modesto Subbasin is agricultural, with major crop types including almonds and other deciduous trees, corn, grains, pasture, vines, citrus and truck crops. Urban areas cover about 13 percent of the Subbasin. Remaining lands consist of non-agriculture, non-irrigated agriculture, undeveloped areas, and surface water (23 percent). Most of the undeveloped land is in the eastern portion of the Modesto Subbasin as shown by the 2017 land use map on Figure ES-4.

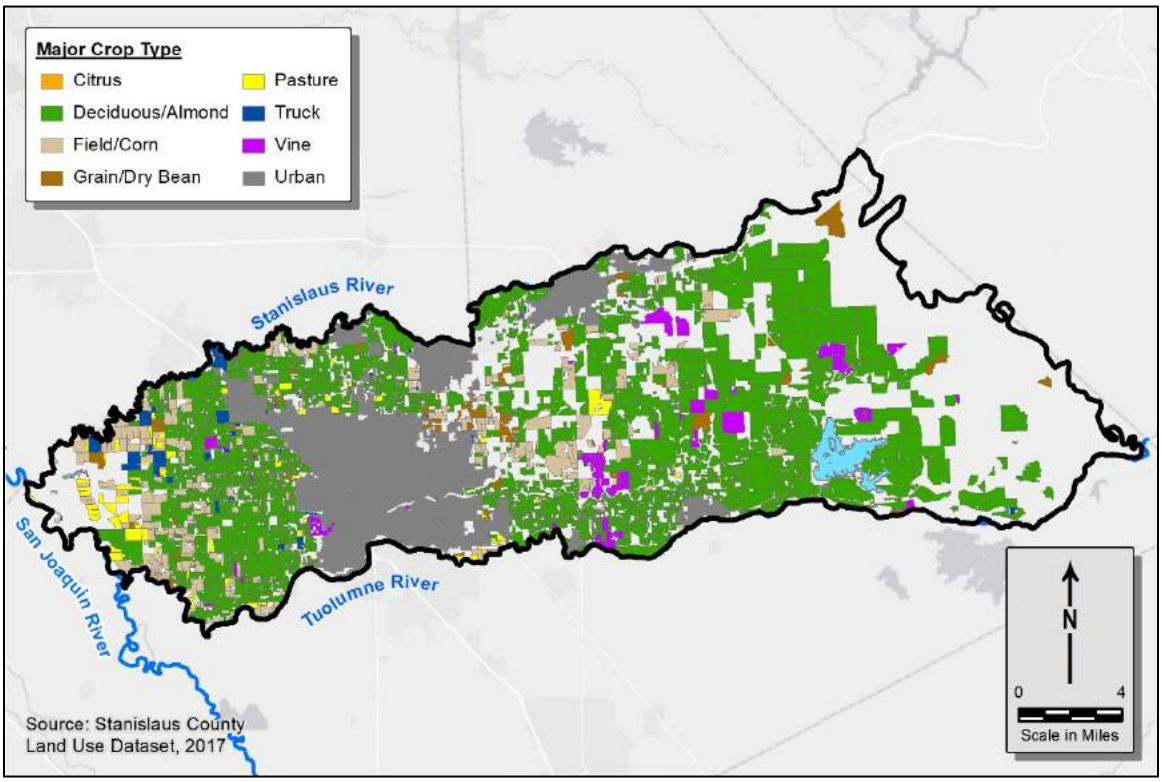


Figure ES-4 Existing Land Use

A significant expansion of irrigated agriculture occurred in the Subbasin during the GSP study period. In 1996, irrigated agriculture covered approximately 46 percent of the Subbasin (approximately 111,946 acres). Over the next 20 years, irrigated agriculture expanded by about 40 percent and by 2017 had added another 45,965 acres (total 157,911 acres, approximately 64 percent of the Subbasin). The increase in irrigated agriculture primarily resulted from a conversion of pasture to deciduous/almond orchards. Much of this expansion occurred in the eastern Subbasin – outside of Modesto ID and Oakdale ID service areas – where groundwater is the primary source of water supply.

Beneficial uses of groundwater in the Subbasin include municipal, small water system, and domestic drinking water, industrial and agricultural supply, and environmental uses. Environmental uses include interconnected surface water uses, aquatic habitat, and groundwater dependent ecosystems (GDEs).

Four separate Management Areas are delineated in the GSP to reflect areas of similar water supplies, streamlining coordination of water management and prioritizing areas for GSP project implementation. These management areas include Modesto ID Management Area, Oakdale ID Management Area, Non-District East Management Area, and Non-District West Management Area as shown on Figure ES-5.

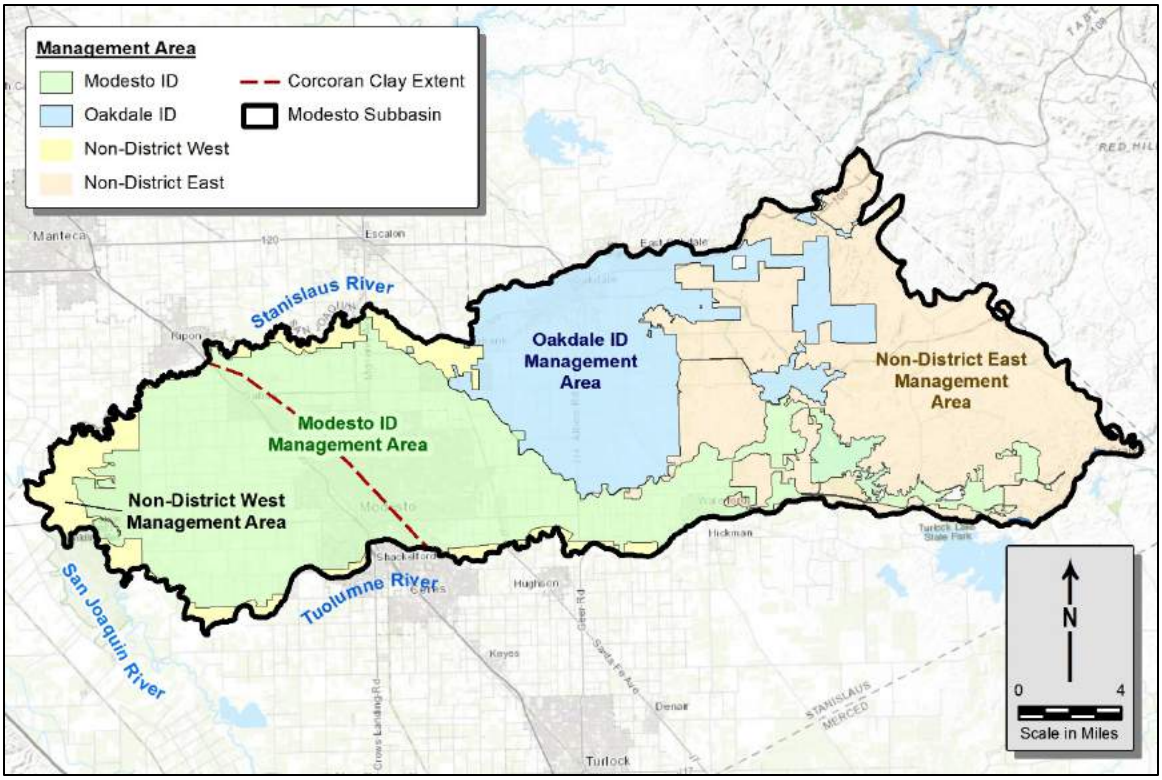


Figure ES-5 Modesto Subbasin Management Areas

The Non-District West Management Area contains lands along the western rim of the Subbasin, where both groundwater and surface water (riparian rights) are available for beneficial uses. The Non-District East Management Area includes lands outside of Modesto ID and Oakdale ID service areas in the eastern Subbasin, where groundwater is the primary water supply.

The Modesto ID and Oakdale ID Management Areas coincide with their service area boundaries, which facilitates ongoing water management responsibilities. Modesto ID manages Tuolumne River water and groundwater conjunctively, and Oakdale ID manages Stanislaus River water and groundwater conjunctively. The Non-District East and Non-District West Management Areas cover remaining lands outside of MID and OID jurisdiction, where Stanislaus County is the lead member agency.

The physical and water management setting of the Plan Area is contained in Chapter 2 and the hydrogeologic setting and groundwater conditions are provided in Chapter 3.

As summarized in the basin setting, the Modesto Subbasin extends from the Sierra Nevada foothills to the San Joaquin Valley floor, with ground surface elevations ranging from approximately 650 feet mean sea level (msl) in the eastern Subbasin to 20 feet msl along the San Joaquin River. The western Subbasin is relatively flat and the eastern Subbasin is hummocky, as the San Joaquin Valley floor transitions to the Sierra Nevada foothills. The eastern Subbasin boundary generally follows the contact of Subbasin sedimentary deposits with the crystalline basement rocks of the Sierra Nevada. This contact slopes steeply and the Modesto Subbasin is filled with sedimentary deposits that may extend thousands of feet below the surface. The base of fresh water, as mapped by USGS and incorporated into the C2VSimTM model used for this GSP, is used to define the bottom of the basin.

Three principal aquifers were defined in the Modesto Subbasin for future groundwater management under SGMA. The Corcoran Clay, underlying the western Subbasin, is the primary aquitard in the Subbasin and used to demarcate the three principal aquifers: the Western Upper Principal Aquifer is the unconfined aquifer above the Corcoran Clay, the Western Lower Principal Aquifer is the confined aquifer below the Corcoran Clay and the Eastern Principal Aquifer is the unconfined to semi-confined aquifer system east of the Corcoran Clay.

Cross sections were developed for the GSP based on geologic textures that illustrate the distribution of coarse- and fine-grained deposits within the Subbasin and the westerly dipping and thickening Corcoran Clay. Simplified cross sections were also developed to represent the geologic formations within the Subbasin. A conceptual cross section on Figure ES-6 is provided to illustrate subsurface conditions across the Subbasin including the principal aquifers, the Corcoran Clay, the westerly dipping formations, offsets caused by two interpreted geologic faults in the central and eastern Subbasin, and the base of fresh water which represents the bottom of the basin. The bottom of the basin is about -550 feet msl along the eastern Subbasin boundary, dips to about -1,000 feet msl in the center of the Subbasin and then rises to about -700 feet msl along the western Subbasin boundary.

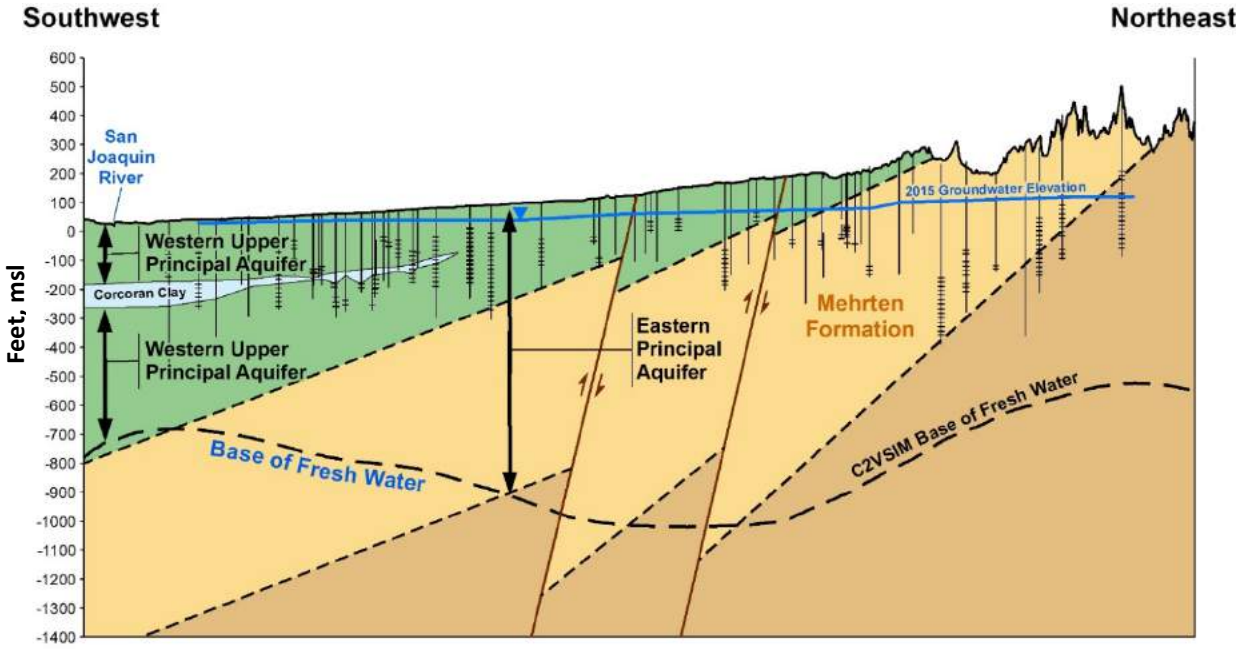


Figure ES-6 Cross Section of Hydrogeologic Framework

The cross section also depicts the shallow groundwater elevation across the Subbasin in Fall 2015 (blue line near top of section). As indicated on Figure ES-6, the water table is shallow in the western Subbasin and deepens to the east with the rising ground surface elevation. A small area of lowered water levels is indicated in the eastern Subbasin, reflecting an area with ongoing water level declines, although data in that area are sparse.

An analysis of **groundwater conditions** was conducted based on water levels measurements from approximately 450 wells during the study period. Most of the available water level measurements were from wells screened in the Western Upper Principal Aquifer and the Eastern Principal Aquifer; there are only a few wells screened solely in the Western Lower Principal Aquifer. Water level data were used to calibrate the C2VSimTM model, which was used to assist with groundwater flow analyses.

As indicated by the simulated contours in Figure ES-7, groundwater in the Subbasin flows generally to the southwest, with local water levels controlled by groundwater pumping. Water levels in the Western Upper Principal Aquifer were relatively low in the early 1990s and rose after 1995 when the City of Modesto began receiving water from the Modesto Regional Water Treatment Plant and began pumping less groundwater. Since then, water levels appear to be relatively stable, with small declines during drought (about 10 to 20 feet) followed by recovery in post-drought years. Water levels in the Eastern Principal Aquifer have declined since about 2000, with significant declines during the recent drought. In the eastern Subbasin, long-term rates of decline are up to about 2.7 feet per year, and rates of decline during drought are up to 6 feet per year. A generalized area is delineated in the eastern Subbasin on Figure ES-7 where water level declines have occurred (dashed blue line).

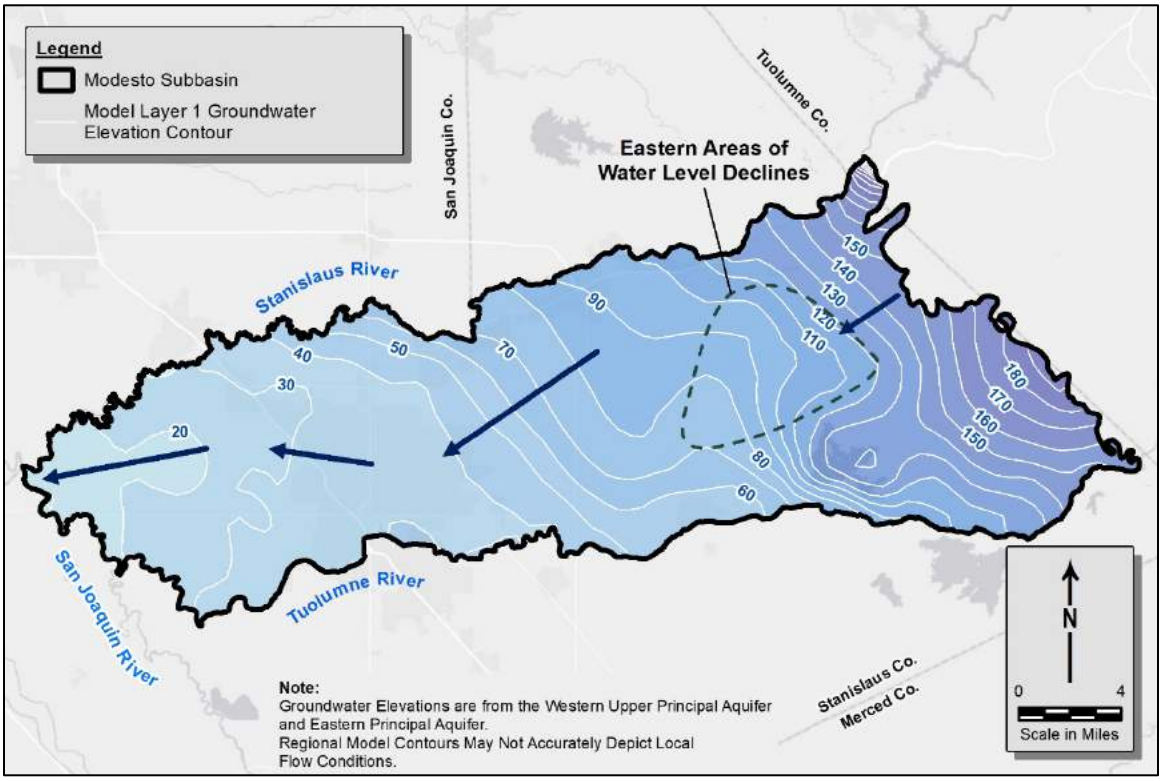


Figure ES-7 Simulated Groundwater Elevation Contours, September 2015, Unconfined Aquifer

The Tuolumne, Stanislaus and San Joaquin rivers flow for approximately 122 miles along three of the four Subbasin boundaries and are each **interconnected surface water as defined by SGMA**. The interconnectedness of the rivers was analyzed using the integrated surface water-groundwater model C2VSimTM, developed for the GSP. Model results show that the San Joaquin River along the Modesto Subbasin has been, and is projected to be, a net gaining reach. The Stanislaus and Tuolumne river systems are more dynamic, with recharge and baseflow varying along segments of the rivers both

seasonally and over time. Total stream inflows into the Subbasin during the historical study period are approximately 2.5 million acre feet (MAF), more than one-half of which is from the San Joaquin River (1.3 MAF). The remaining inflows are from the Stanislaus River (0.5 MAF) and Tuolumne River (0.7 MAF). The Stanislaus and Tuolumne rivers drain into the San Joaquin River, which has an outflow from the Subbasin of approximately 2.8 MAF during the historical study period.

C2VSimTM was used to develop **water budgets** for the historical (1991 to 2015), current (2010) and projected conditions, which represents average hydrology and current land use over a 50-year future period. Inflows and outflows from the water budget analysis for these three conditions are summarized in Table ES-1.

Table ES-1 Average Annual Water Budget – Groundwater System, Modesto Subbasin (AFY)

Component	Historical Condition Water Budget	Current Condition Water Budget	Projected Condition Water Budget
Hydrologic Period	WY 1991- 2015	WY 2010	Hydrology from WY 1969 - 2018
Gain from Stream	40,000	51,000	76,000
Gain from Stanislaus River	19,000	20,000	36,000
Gain from Tuolumne River	20,000	30,000	38,000
Gain from San Joaquin River	1,000	-	2,000
Canal & Reservoir Recharge	49,000	47,000	47,000
Deep Percolation	272,000	257,000	228,000
Subsurface Inflow	80,000	79,000	77,000
Flow from the Sierra Nevada Foothills	9,000	5,000	9,000
Eastern San Joaquin Subbasin Inflows	8,000	9,000	28,000
Turlock Subbasin Inflows	30,000	34,000	33,000
Delta Mendota Subbasin Inflows	33,000	31,000	7,000
Total Inflow	**440,000**	**434,000**	**428,000**
Discharge to Stream	100,000	80,000	50,000
Discharge to Stanislaus River	35,000	27,000	12,000
Discharge to Tuolumne River	51,000	39,000	27,000
Discharge to San Joaquin River	15,000	13,000	11,000
Subsurface Outflow	73,000	63,000	75,000
Eastern San Joaquin Subbasin Outflows	6,000	5,000	35,000
Turlock Subbasin Outflows	32,000	24,000	34,000
Delta Mendota Subbasin Outflows	36,000	35,000	6,000
Groundwater Production	311,000	416,000	314,000
Agency Ag. Groundwater Production	26,000	15,000	25,000
Private Ag. Groundwater Production	222,000	345,000	229,000
Urban Groundwater Production	63,000	56,000	60,000
Total Outflow	**483,000**	**559,000**	**438,000**
Change in Groundwater Storage	(43,000)	(125,000)	(11,000)

Note: sub-categories may not sum together due to rounding error

As shown on Table ES-1, the Modesto Subbasin experienced a **decline of groundwater in storage** of 43,000 AFY during historical conditions, based on an inflow of 440,000 AFY and an outflow of 483,000 AFY. The historical water budget estimates groundwater production of 311,000 AFY; by subtracting the groundwater deficit from the groundwater production, a simplified sustainable yield of 268,000 AFY can be estimated for the historical study period. The average annual depletion in groundwater for the current and projected conditions are 125,000 AFY and 11,000 AFY, respectively.

The average decline of groundwater in storage of 11,000 AFY during projected conditions is significantly less than historical storage depletion of 43,000 AFY. However, this decline occurs at the expense of increased seepage of 86,000 AFY from primarily the Stanislaus and Tuolumne rivers in response to water level declines. This future increase in streamflow depletion as predicted by the model is considered significant and unreasonable.

Based on the basin setting and water budget analysis, **the GSP developed sustainable management criteria** to avoid undesirable results for the five sustainability indicators applicable to the Subbasin: chronic lowering of water levels, reduction of groundwater in storage, degraded water quality, inelastic land subsidence, and depletion of interconnected surface water. The seawater intrusion sustainability indicator is not applicable to the inland Modesto Subbasin. Subbasin conditions that were the primary considerations for sustainability were incorporated into the analysis. Those sustainability considerations are illustrated on Figure ES-8. DWR icons for each sustainability indicator are placed on the map to highlight the area and reference the discussion below.

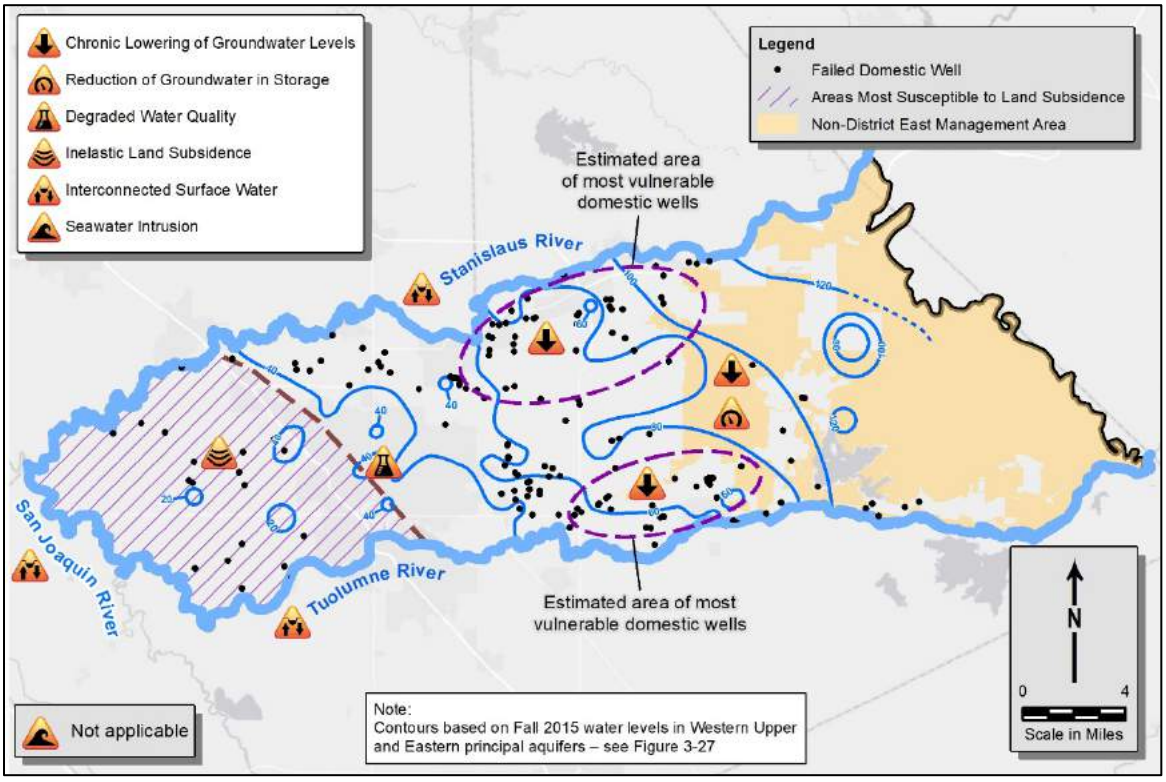


Figure ES-8 Sustainability Considerations for the Modesto Subbasin

As indicated on Figure ES-8, the Modesto Subbasin has experienced chronic lowering of water levels and reduction of groundwater in storage primarily within and around the Non-District East Management Area in the eastern Subbasin. The declining water levels in this area have propagated westward during drought conditions (2013-2017), lowering water levels in eastern Oakdale ID and in the vicinity of Waterford and causing impacts to domestic and public drinking water wells. A number of water quality constituents have been detected in excess of their maximum contaminant levels (MCLs) for drinking water, especially in the western Subbasin where most of the public drinking water wells occur. Although the City of Modesto and other public water suppliers manage their wellfield operations to control impacts to drinking water, the potential for degraded water quality in the future is also a consideration. No impacts from land subsidence have been observed in the Subbasin, but areas within the Corcoran Clay extent may be most susceptible to the potential for future land subsidence if water levels decline. Finally, the interconnected surface water sustainability indicator is a concern along the river boundaries, especially along the Tuolumne and Stanislaus rivers, where future increases in streamflow depletion are predicted unless water level declines and overdraft conditions are arrested.

To address these concerns, definitions of undesirable results, minimum thresholds, and other sustainable management criteria have been developed. A summary of the sustainable management criteria is provided in Table ES-3 below.

Table ES-3 Sustainable Management Criteria

Sustainability Indicator	Undesirable Results (narrative)	Minimum Thresholds
Chronic Lowering of Groundwater Levels	Adverse impacts to water supply wells from over-pumping	Historical low water level WY 1991–2020 (typically 2015, 1991, or current)
Reduction of GW in Storage	Long-term overdraft conditions based on projected water use and average hydrology	As above; linked to sustainable yield volume
Degraded Water Quality	Degradation caused by GSA projects/actions or management of water levels/extractions	MCLs of 7 constituents of concern
Seawater Intrusion	Not applicable	Not applicable
Inelastic Land Subsidence	Inelastic land subsidence that adversely impacts land use/infrastructure	Historical low water level WY 1991–2020 (typically 2015, 1991, or current)
Interconnected Surface Water	Adverse impacts on beneficial uses of surface water caused by groundwater extraction	Fall 2015 water levels (in coordination with adjacent subbasins)

These sustainable management criteria were tested with the C2VSimTM model to assist with evaluations of sustainability. This analysis, referred to as a **sustainable conditions analysis**, was conducted to determine how best to achieve the sustainability criteria and avoid undesirable results. The analysis modified the future projected conditions by reducing agricultural demand for groundwater users in the Non-District East Management Area (where groundwater is the primary water supply). This allowed the GSAs to optimize projects and management actions with respect to locations and quantities for future sustainable management.

Results from the sustainable conditions analysis are summarized in Table ES-2 and show that a 58 percent reduction in demand from the projected baseline levels would achieve a sustainable yield of approximately 266,000 for the Subbasin to avoid undesirable results. Since future projected groundwater production in the Subbasin is estimated at 314,000 AFY, an increase in supply or reduction in demand that adds approximately 47,000 AFY is required to bring the Subbasin into sustainability. Modeling suggests that the sustainable management criteria can be met under these conditions. It was recognized that these conditions could be met by increases in water supply as well as reductions in demand.

Table ES-2 Sustainable Yield Average Annual Water Budget, Modesto Subbasin (AFY)

Component	Projected Conditions	Sustainable Conditions
Hydrologic Period	Hydrology from WY 1969 - 2018	Hydrology from WY 1969 - 2018
Gain from Stream	76,000	58,000
Gain from Stanislaus River	36,000	27,000
Gain from Tuolumne River	38,000	29,000
Gain from San Joaquin River	2,000	1,000
Canal & Reservoir Recharge	47,000	47,000
Deep Percolation	228,000	213,000
Subsurface Inflow	77,000	83,000
Flow from the Sierra Nevada Foothills	9,000	9,000
Eastern San Joaquin Subbasin Inflows	28,000	9,000
Turlock Subbasin Inflows	33,000	29,000
Delta Mendota Subbasin Inflows	7,000	37,000
Total Inflow	**428,000**	**401,000**
Discharge to Stream	50,000	71,000
Discharge to Stanislaus River	12,000	18,000
Discharge to Tuolumne River	27,000	40,000
Discharge to San Joaquin River	11,000	14,000
Subsurface Outflow	75,000	63,000
Eastern San Joaquin Subbasin Outflows	35,000	4,000
Turlock Subbasin Outflows	34,000	30,000
Delta Mendota Subbasin Outflows	6,000	30,000
Groundwater Production	314,000	267,000
Agency Ag. Groundwater Production	25,000	25,000
Private Ag. Groundwater Production	229,000	181,000
Urban Groundwater Production	60,000	60,000
Total Outflow	**438,000**	**401,000**
Change in Groundwater Storage	(11,000)	-

Note: sub-categories may not sum together due to rounding error

Groundwater level monitoring networks were developed to track and document the achievement of sustainable management criteria for the chronic lowering of groundwater levels, reduction of groundwater in storage, land subsidence, and depletions of interconnected surface water. The monitoring networks are composed of representative monitoring wells that will be used to monitor sustainable management criteria for these sustainability indicators during the GSP implementation and planning horizon. Groundwater elevations were selected for a minimum threshold and measurable objective for each well in the monitoring network. The monitoring networks consist of CASGEM wells, City of Modesto monitoring wells, USGS monitoring wells and monitoring wells constructed in 2021 with Proposition 68 grant funding from DWR. The monitoring network for degradation of water quality will be based on wells monitored by others and available at the State Water Resources Control Board (SWRCB) GeoTracker website.

The water level monitoring network is shown on Figure ES-9. (The water quality monitoring network being implemented by others is shown on Figure 7-4).

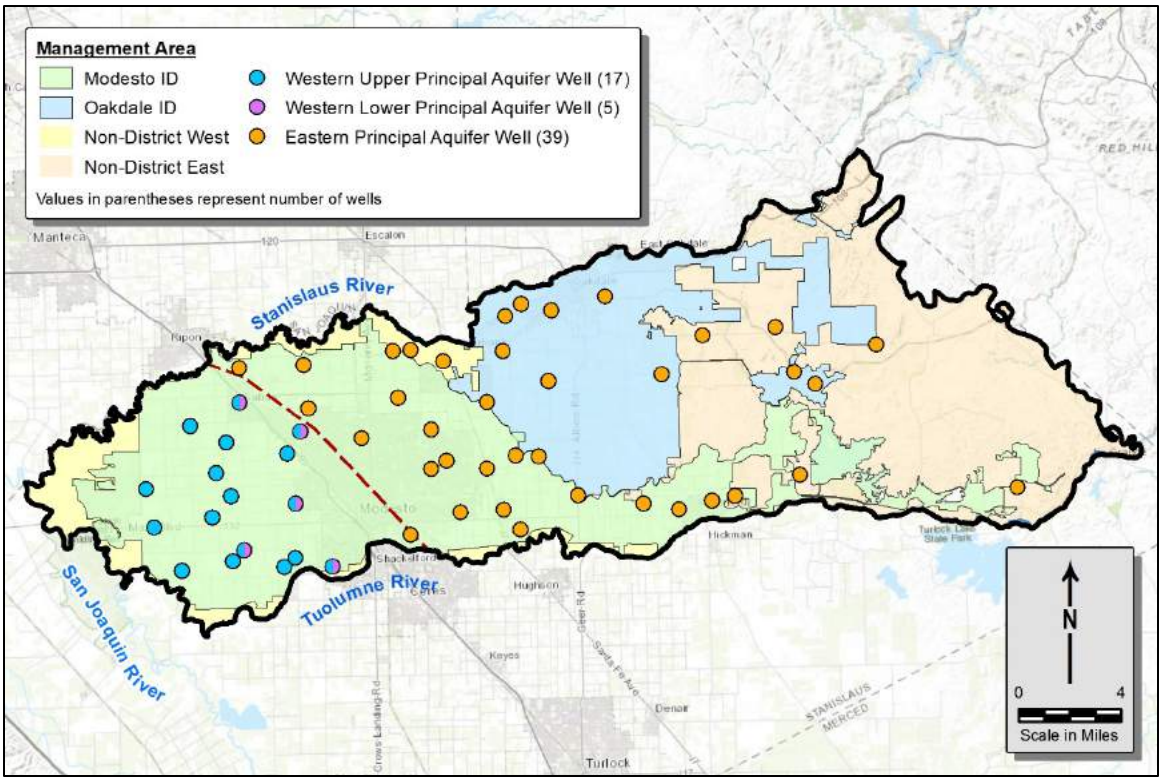


Figure ES-9 Summary of Monitoring Network

To achieve the sustainability goals for the Modesto Subbasin by 2042, and to avoid undesirable results over the remainder of a 50-year planning horizon, multiple **Projects and Management Actions** were identified by the GSAs. Three groups of projects were identified: Group 1 projects are in place and will continue to be implemented, Group 2 projects are still in the planning stages but are generally implementable, and Group 3 projects are being considered and are subject to feasibility. A summary of projects and management actions is provided in Table ES-4.

Table ES-4 GSP Projects for the Modesto Subbasin

Number	Proponent(s)	Project Name	Primary Mechanism(s)	Partner(s)	Group
1	City of Modesto	Growth Realization of Surface Water Treatment Plant Phase II	In-lieu Groundwater Recharge	N/A	1
2	City of Modesto	Advanced Metering Infrastructure Project (AMI)	Conservation	N/A	1
3	City of Modesto	Storm Drain Cross Connection Removal Project	Stormwater Capture	N/A	2
4	City of Waterford	Waterford/Hickman Surface Water Pump Station and Storage Tank	In-lieu Groundwater Recharge	City of Modesto, MID	2
5	Non-District East Areas	Modesto Irrigation District In-lieu and Direct Recharge Project	Direct or In-lieu Groundwater Recharge	Modesto ID	2
6	NDE Areas	Oakdale Irrigation District In-lieu and Direct Recharge Project	Direct or In-lieu Groundwater Recharge	OID	2
7	NDE Areas	Tuolumne River Flood Mitigation and Direct Recharge Project	Direct Groundwater Recharge	Modesto ID	2
8	NDE Areas	Dry Creek Flood Mitigation and Direct Recharge Project	Direct Groundwater Recharge	Stanislaus County	2
9	NDE Areas	Stanislaus River Flood Mitigation and Direct Recharge Project	Direct Groundwater Recharge	Stanislaus County	3
10	City of Modesto	Detention Basin Standards Specifications Update	Groundwater Recharge	N/A	3
11	NDE Areas	Recharge Ponds	Groundwater Recharge	N/A	3
12	City of Oakdale	OID Irrigation and Recharge to Benefit City of Oakdale	Direct or In-lieu Groundwater Recharge	N/A	3
13	MID	MID FloodMAR Projects	Direct Groundwater Recharge	N/A	3

Projects were coupled with additional management actions that are being developed for implementation with an adaptive management approach. Management actions generally refer to non-structural programs or policies designed to incentivize actions and strategies to support the

sustainability of the groundwater Subbasin and include strategies for water conservation and demand reduction.

Table ES-65 List of Management Actions

Category	Number	Proponent[2]	Management Action	Primary Mechanism(s)[1]
Demand Reduction Strategies	1	Modesto Subbasin GSAs	Voluntary Conservation and/or Land Fallowing	Conservation/ Land Fallowing
	2	Modesto Subbasin GSAs	Conservation Practices	Conservation
Water Accounting framework	3	Modesto Subbasin GSAs	Groundwater Extraction and Surface Water Reporting Program	Pumping Reduction
	4	Modesto Subbasin GSAs	Groundwater Allocation and Pumping Management Program	Pumping Reduction
	5	Modesto Subbasin GSAs	Groundwater Extraction Fee	Pumping Reduction
	6	Modesto Subbasin GSAs	Groundwater Pumping Credit Market and Trading Program	Pumping Reduction

Group 1 and 2 projects were analyzed using the C2VSimTM model under the 50-year projected conditions. Two scenarios were simulated, Scenario 1 includes three urban and municipal projects and Scenario 2 adds agriculturally based in-lieu and direct recharge projects to Scenario 1. Scenario 1 projects are expected to reduce net groundwater pumping in the Subbasin by 13,700 AFY and will reduce the annual groundwater storage deficit by 1,500 AFY, from 11,000 AFY under Baseline conditions to 9,500 AFY under Scenario 1. Scenario 2 projects are expected to reduce groundwater pumping by 44,000 AFY and will reduce the annual groundwater storage deficit by 12,400 AFY, resulting in a net positive change in storage of 1,400 AFY.

Modeling analyses demonstrated the ability of Groups 1 and 2 GSP projects to meet the sustainable management criteria developed in Chapter 6 of the GSP. Modeling of representative monitoring sites indicate that undesirable results can be avoided over the 50-year implementation and planning horizon. **Results indicate that through regional cooperation and the commitment of project beneficiaries, groundwater sustainability can be achieved in the Modesto Subbasin without demand management**. Nonetheless, demand management is provided in the GSP as a backstop to avoid undesirable results in the future.

GSP implementation will begin immediately after the GSP is submitted in January 2022. Annual reports will be submitted by April 1 of each year following GSP adoption. Every five years, GSPs will be evaluated with respect to their progress in meeting sustainability goals. **Additional implementation activities are described in Chapter 9**.

AGENDA REPORT

GSA Meeting Date: January 12, 2022

Subject:	Modesto Subbasin Groundwater Sustainability Plan.
Recommended Action:	Resolution adopting the Modesto Subbasin Groundwater Sustainability Plan (GSP) and authorizing the STRGBA GSA Plan Manager to submit the GSP to DWR by January 31, 2022.
Background and Discussion:	In April 1994, the Modesto Irrigation District along with Oakdale Irrigation District, Stanislaus County and the Cities of Modesto, Oakdale, and Riverbank executed a Memorandum of Understanding to form the Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRBGA) for the purpose of coordinating planning and groundwater management activities in the Modesto Subbasin. In July 2015, the Memorandum of Understanding was amended to include the City of Waterford as a member agency of STRGBA. In August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (SGMA) "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)). SGMA requires sustainable management through the development of groundwater sustainability plans (GSP), which can be a single plan developed by one or more groundwater sustainability agency (GSA) or multiple coordinated plans within a basin or subbasin (Wat. Code, § 10727). SGMA also requires a GSA to manage groundwater in all basins designated by the Department of Water Resources (DWR) as a medium or high priority, including the Modesto Subbasin (designated basin number 5-022.02). The STRGBA GSA was formed on February 16, 2017, for the purpose of sustainably managing groundwater in the Modesto Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA. The STRGBA GSA also has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 et seq.). On February 28, 2017, the STRGBA GSA submitted an Initial Notification to DWR to jointly develop a GSP for the Modesto Subbasin along with Tuolumne County GSA. The STRGBA GSA has since then worked with the Tuolumne County GSA to develop a single, coordinated GSP for the Modesto Subbasin. On August 10, 2021 the STRGBA GSA released the Notice of Intent to Adopt the GSP to cities and counties in the plan area pursuant to Water Code section 10728.4. On November 15, 2021, the STRGBA GSA and Tuolumne County GSA released the completed draft of the Modesto Subbasin GSP for public review and comment. The STRGBA GSA and Tuolumne County GSA have subsequently

	received, reviewed, and incorporated public comments into the final document where appropriate. During the month of December 2021, six of the seven STRGBA GSA member agencies (MID, OID, Stanislaus County, Cities of Modesto, Riverbank, and Waterford) held public hearings and adopted the draft GSP and authorized the Plan Manager to submit the final GSP to DWR by January 31, 2022. The final Modesto Subbasin GSP will be incorporated in its entirety by reference hereto this resolution.
Alternatives, Pros and Cons of Each Alternative:	1. Do Nothing – Cons: Does not comply with State law, not eligible for DWR grant funding, liable for costs associated with DWR engagement of 3rd party to prepare plan; Pros: No staff time or consultant costs. 2. Approve GSP – Cons: Staff time and consultant costs; Pros: Complies with State law, eligible for DWR grant funding, demonstrates unified long-term water resource planning with other STRGBA GSA member agencies..
Concurrence:	The GSP has been prepared in accordance with the requirements of the Sustainable Groundwater Management Act of 2014, and Water Code, § 10727. Six of the seven STRGBA GSA member agencies have adopted the final draft of the GSP.
Fiscal Impact:	In July 2018, the STRGBA GSA member agencies entered into a cost share agreement for the preparation of the GSP for the Modesto Subbasin. In August 2017, City awarded a contract to Todd Groundwater to prepare the GSP for a total cost of $1,616,226 inclusive of a 10% contingency. Subsequently, the City of Modesto applied for and was awarded a $1,000,000 grant from DWR to help defray the plan preparation costs. The seven STRGBA GSA member agencies along with the Tuolumne County GSA agreed to each pay approximately 12.5% (1/8) of the unfunded balance, or $77,028, to cover their share of the GSP development.
Recommendation:	Resolution adopting the Modesto Subbasin Groundwater Sustainability Plan (GSP) and authorizing the STRGBA GSA Plan Manager to submit the GSP to DWR by January 31, 2022.

AGENDA REPORT

Attachments: Supporting documents attached:

☒ Resolution ☐ Presentation ☐ Other supporting docs ☐ None attached

Note: Original contracts and agreements are housed in the GSA Secretary's Office, phone (209) 526-7360.

Presenter	GSA Chairman
Gordon J Enas	Eric Thorburn
Gordon Enas, P.E.	Eric Thorburn, P.E.
1/7/2022	1/7/2022
Date Signed	Date Signed

D R A F T

RESOLUTION NO. 2022-03

RESOLUTION ADOPTING THE MODESTO SUBBASIN GROUNDWATER SUSTAINABILITY PLAN (GSP) AND AUTHORIZING THE STRGBA GSA PLAN MANAGER TO SUBMIT THE GSP TO DWR BY JANUARY 31, 2022.

WHEREAS, in April 1994, the City of Modesto, Modesto Irrigation District, City of Oakdale, Oakdale Irrigation District, City of Riverbank, and County of Stanislaus executed a Memorandum of Understanding to form the Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRBGA) for the purpose of coordinating planning and groundwater management activities in the Modesto Subbasin;; and

WHEREAS, in July 2015, the Memorandum of Understanding was amended to include the City of Waterford as a member agency of STRGBA; and

WHEREAS, in August 2014, the California Legislature passed, and in September 2014 the Governor signed, legislation creating the Sustainable Groundwater Management Act (SGMA) "to provide local groundwater sustainability agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater" (Wat. Code, § 10720, (d)); and

WHEREAS, SGMA requires sustainable management through the development of groundwater sustainability plans ("GSP"), which can be a single plan developed by one or more groundwater sustainability agency ("GSA") or multiple coordinated plans within a basin or subbasin (Wat. Code, § 10727); and

WHEREAS, SGMA requires a GSA to manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Modesto Subbasin (designated basin number 5-022.02); and

WHEREAS, the STRGBA GSA was formed on February 16, 2017, for the purpose of sustainably managing groundwater in the Modesto Subbasin, within its jurisdictional boundaries, pursuant to the requirements of SGMA; and

WHEREAS, the STRGBA GSA has the authority to draft, adopt, and implement a GSP (Wat. Code, § 10725 et seq.); and

WHEREAS, the STRGBA GSA submitted an Initial Notification to DWR to jointly develop a GSP for the Modesto Subbasin on February 28, 2017; and

WHEREAS, the STRGBA GSA has coordinated with the Tuolumne County GSA to develop a single, coordinated GSP for the Modesto Subbasin; and

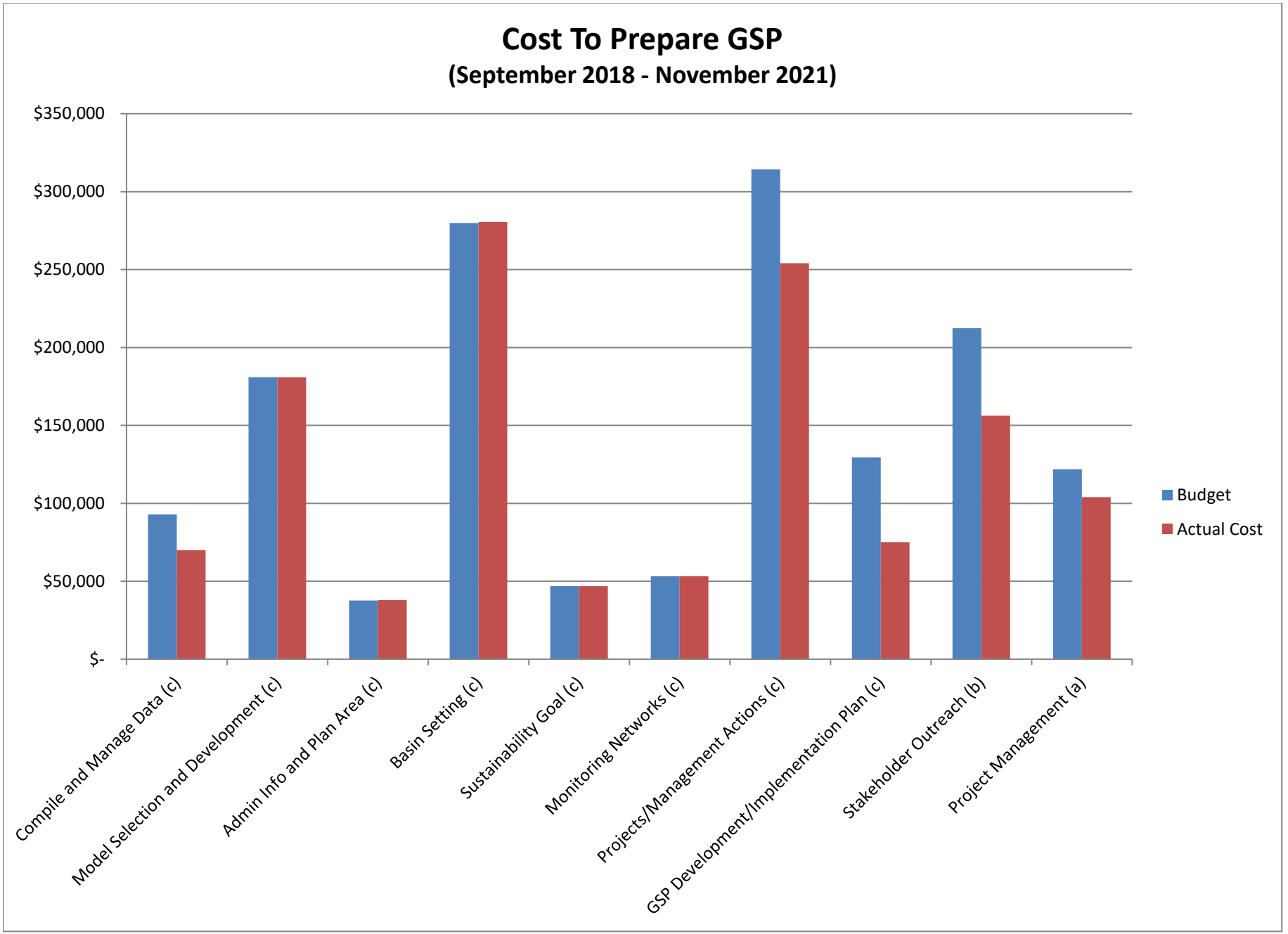
WHEREAS, on August 10, 2021 the STRGBA GSA released the Notice of Intent to Adopt the GSP to cities and counties in the plan area pursuant to Water Code section 10728.4

WHEREAS, the STRGBA GSA and Tuolumne County GSA developed the draft Modesto Subbasin GSP and released the draft Modesto Subbasin GSP chapters for public review and comment; and

WHEREAS, the STRGBA GSA and Tuolumne County GSA reviewed and responded to comments on the Modesto Subbasin GSP; and

WHEREAS, the final Modesto Subbasin GSP is incorporated in its entirety by reference hereto this resolution.

NOW, THEREFORE, THE GOVERNING BODY OF THE STANISLAUS AND TUOLUMNE RIVERS GROUNDWATER BASIN ASSOCIATION GROUNDWATER SUSTAINABILITY AGENCY DOES HEREBY ADOPT THE MODESTO SUBBASIN GROUNDWATER SUSTAINABILITY PLAN AND AUTHORIZES THE STRGBA GSA PLAN MANAGER TO SUBMIT THE MODESTO SUBBASIN GSP TO DWR BY JANUARY 31, 2022.


Cost To Prepare GSP
(September 2018 - November 2021)
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$-
Compile and Manage Data (c)
Model Selection and Development (c)
Admin Info and Plan Area (c)
Basin Setting (c)
Sustainability Goal (c)
Monitoring Networks (c)
Projects/Management Actions (c)
GSP Development/Implementation Plan (c)
Stakeholder Outreach (b)
Project Management (a)
Budget
Actual Cost