



TEJON-CASTAC
WATER
DISTRICT



South of Kern River Executive Committee Regular Meeting

Thursday, September 14, 2023
10:00 a.m. to 11:30 a.m.

Meeting Information Posted:

www.sokrgsp.com

<http://www.aewsd.org> * <http://www.wrmwsd.com>

<http://www.tejoncastacwd.com> * <https://www.arvincsd.com>

In Person: Arvin-Edison Water Storage District Headquarters
20401 E. Bear Mountain Blvd. Arvin, CA 93203

Via Remote (**Microsoft Teams**): <https://www.microsoft.com/microsoft-teams/join-a-meeting>

[Click here to join the meeting](#)

Meeting Number: **289 619 843 830**

Meeting Password: **ko5K35**

Phone: **1.213.437.9052**

Phone Meeting Number (access code): **276 512 496#**

NOTICE: Members of the public interested in participating by teleconference may do so using the call-in information above or by following [this link](#). Please note that this teleconference option is provided as a courtesy and at the participant's own risk. The Committee cannot guarantee that there will be no loss of connectivity or other technological obstacle to full participation through teleconferencing. By participating in this way, participants confirm that they understand this risk and that the Committee is not obliged to delay any portion of the meeting due to such technological obstacles and thus that teleconference participants may be unable to participate.

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. APPROVAL OF THE AGENDA
5. APPROVAL OF AUGUST 10, 2023 MEETING MINUTES
6. PUBLIC COMMENT
7. REPORT ITEMS
 - a. GSP Manager Report (*Muhar*)
 - i. Basin Coordination Committee
 - b. Technical Consultant Report (*EKI*)
 - i. Technical Working Group (TWG) Update
 - ii. SGMA Monitoring Network performance and sustainable management criteria (SMC) compliance
 - c. Finance Report (*Nicholas*)

d. California Aqueduct Subsidence Program (CASP) update (*Nicholas*)

e. Management Area updates (*Muhar, Nicholas, Martin, Barraza*)

8. ACTION ITEMS

a. Consider endorsement of and recommendation for funding the EKI Task Order for Groundwater Sustainability Plan (GSP) Implementation Support October through December 2023 (*Muhar*)

9. CORRESPONDENCE

a. Memo Re: Revised GSP, Next Steps, and Timeline, from GEI Consultants, Inc. with Support from the Technical Working Group, dated 1 September 2023.

10. CLOSED SESSION

a. Potential Litigation (Government Code §54956.9(d)(2), (e)(1); 1 item).

11. ADJOURNMENT

**MINUTES OF THE MEETING OF THE
SOUTH OF KERN RIVER EXECUTIVE COMMITTEE
August 10, 2023**

Vice Chair Blaine called to order the monthly meeting at 10:00 a.m., with a quorum and attendance by:

Executive Committee Directors

Mark Valpredo – Tejon-Castac Water District (TCWD; Tejon-Castac GSA) (in person)

Michael Blaine – Wheeler Ridge-Mariposa Water Storage District (WRMWSO; Wheeler Ridge-Maricopa GSA) (in person)

Rafael Gallardo – Arvin Community Services District (ACSD) (in person)

District Staff

Jeevan Muhar – Arvin-Edison Water Storage District (AEWSD) (remote)

Angelica Martin – TCWD (remote)

Sheridan Nicholas – WRMWSO (remote)

Derek Yurosek – Arvin-Edison Water Storage District (AEWSD; Arvin GSA) was absent.

Participants recited the Pledge of Allegiance.

APPROVAL OF THE AGENDA

Director Valpredo moved to approve the agenda. Director Gallardo seconded. The motion passed unanimously.

APPROVAL OF JULY 20, 2023 MEETING MINUTES

Director Valpredo moved to approve the July 20, 2023 South of Kern River (SOKR) Executive Committee meeting minutes. Director Gallardo seconded. The motion passed unanimously.

PUBLIC COMMENT

There were no public comments.

REPORT ITEMS

GSP Manager Report

Basin Coordination Committee

Mr. Muhar reported that the Coordination Committee is (1) working through Plan Manager contract modifications and (2) stating Groundwater Sustainability Agencies (GSAs) preferences regarding the Technical Working Group's (TWG) recommended chronic lowering of groundwater level minimum thresholds (MTs).

Technical Consultant Report

Technical Working Group (TWG) Update

EKI reported on the subbasin-wide technical work efforts the TWG has been conducting over the past month to address DWR-identified GSP deficiencies, including developing recommended subbasin-wide MT approaches.

SGMA Monitoring Network performance and sustainable management criteria (SMCs) compliance

EKI reported on the status of July 2023 groundwater levels in comparison to SMCs.

Finance Report

Mr. Nicholas had no finance report.

California Aqueduct Subsidence Program (CASP) update

Mr. Nicolas reported that a further meeting with CASP staff is on hold pending review of the recently published LBNL and ECI reports.

Management Area Updates

Mr. Muhar reported no updates from last meeting.

Mr. Nicholas reported no updates from last month.

Ms. Martin reported no updates from last month.

CLOSED SESSION

Conference with Legal Counsel pursuant to Government Code §54956.9(d)(2), (e)(1) (potential litigation; 1 item). There was no action to report out of closed session.

ACTION ITEMS

Present and consider TWG recommended subbasin-wide groundwater level SMCs definitions

EKI presented on the TWG's work to develop three options for subbasin-wide groundwater level SMCs for the Coordination Committee's consideration. The Directors discussed the comparative merits of each option. Director Blaine reiterated preference for subbasin-wide groundwater level SMCs in order are SOKR method, Option 1, and Option 2. The Directors did not make a formal recommendation regarding preferred method pending further study by the TWG and deliberation by the Coordination Committee.

There was no public comment.

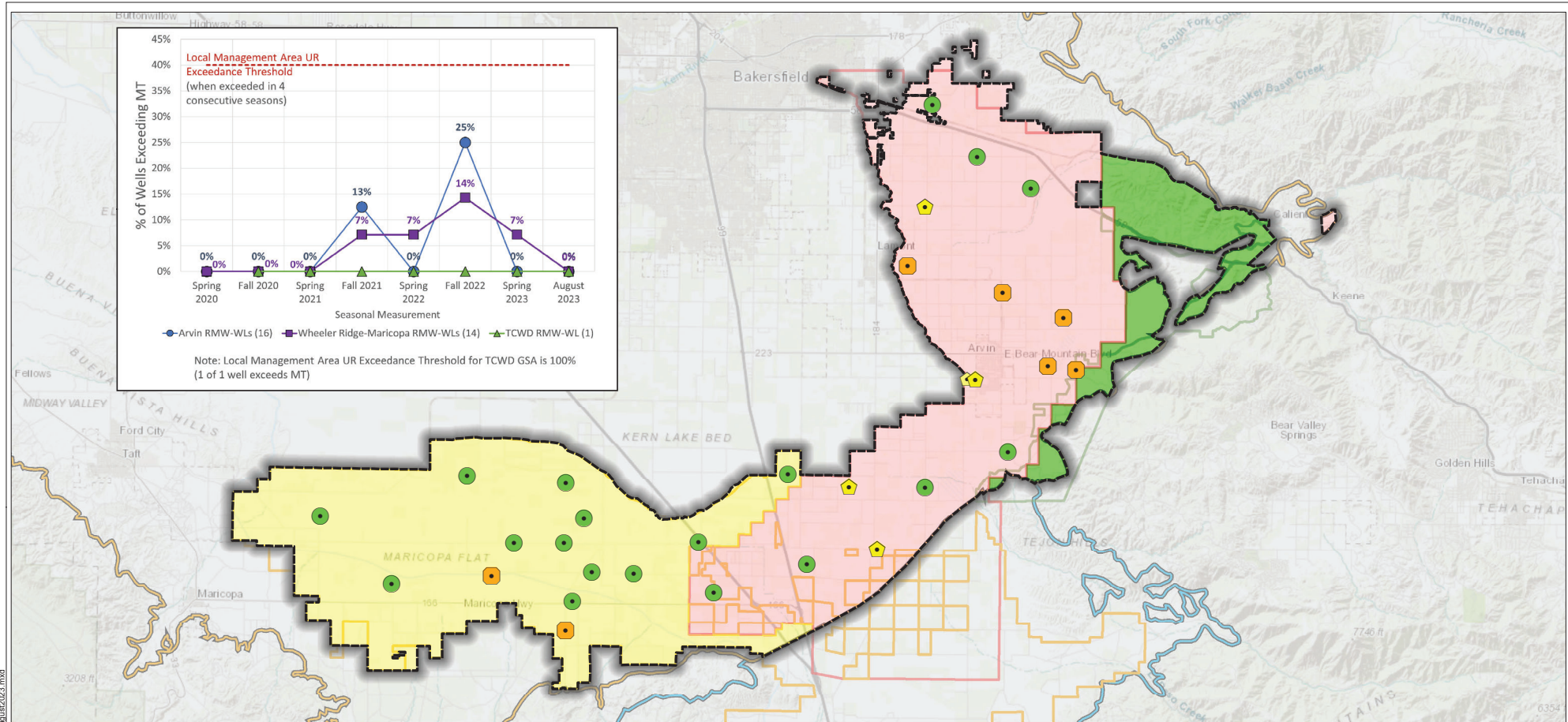
CORRESPONDENCE

There was no correspondence.

ADJOURNMENT

Director Blaine adjourned the South of Kern River Executive Committee meeting at 11:20 a.m.

Mark Valpredo, South of Kern River
Executive Committee Secretary



Legend

Representative Monitoring Well and Status as of August 2023

- Water Level Above MO (19 or 61%)
- ⬠ Water Level between MO and MT but closer to MO (5 or 34%)
- ⬠ Water Level between MO and MT but closer to MT (4 or 25%)
- South of Kern River Plan Area
- Arvin GSA
- Wheeler Ridge-Maricopa GSA
- Tejon-Castac Water District GSA

- WRMWS District Service Area
- AEWSD Service Area
- TCWD Service Area
- Groundwater Subbasin**
- Kern County (DWR 5-022.14)
- White Wolf (DWR 5-022.18)

Abbreviations

- AEWSD = Arvin-Edison Water Storage District
- DWR = California Department of Water Resources
- GSA = Groundwater Sustainability Agency
- MO = Measurable Objective
- MT = Minimum Threshold
- RMW = Representative Monitoring Well
- SGMA = Sustainable Groundwater Management Act
- SMC = Sustainable Management Criteria
- TCWD = Tejon-Castac Water District
- UR = Undesirable Result
- WRMWS = Wheeler Ridge-Maricopa Water Storage District

Notes

1. All locations are approximate.
2. Undesirable Results are deemed to occur if groundwater levels in 40% or more RMWs are below their respective MT for four consecutive bi-annual measurements (Spring and Fall) in any management area.

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 6 September 2023.
2. GSA boundaries obtained from SGMA GSA Map Viewer portal, accessed 6 May 2022.
3. DWR groundwater basins are based on the boundaries defined in California's Groundwater Bulletin 118 - 2019 Update.



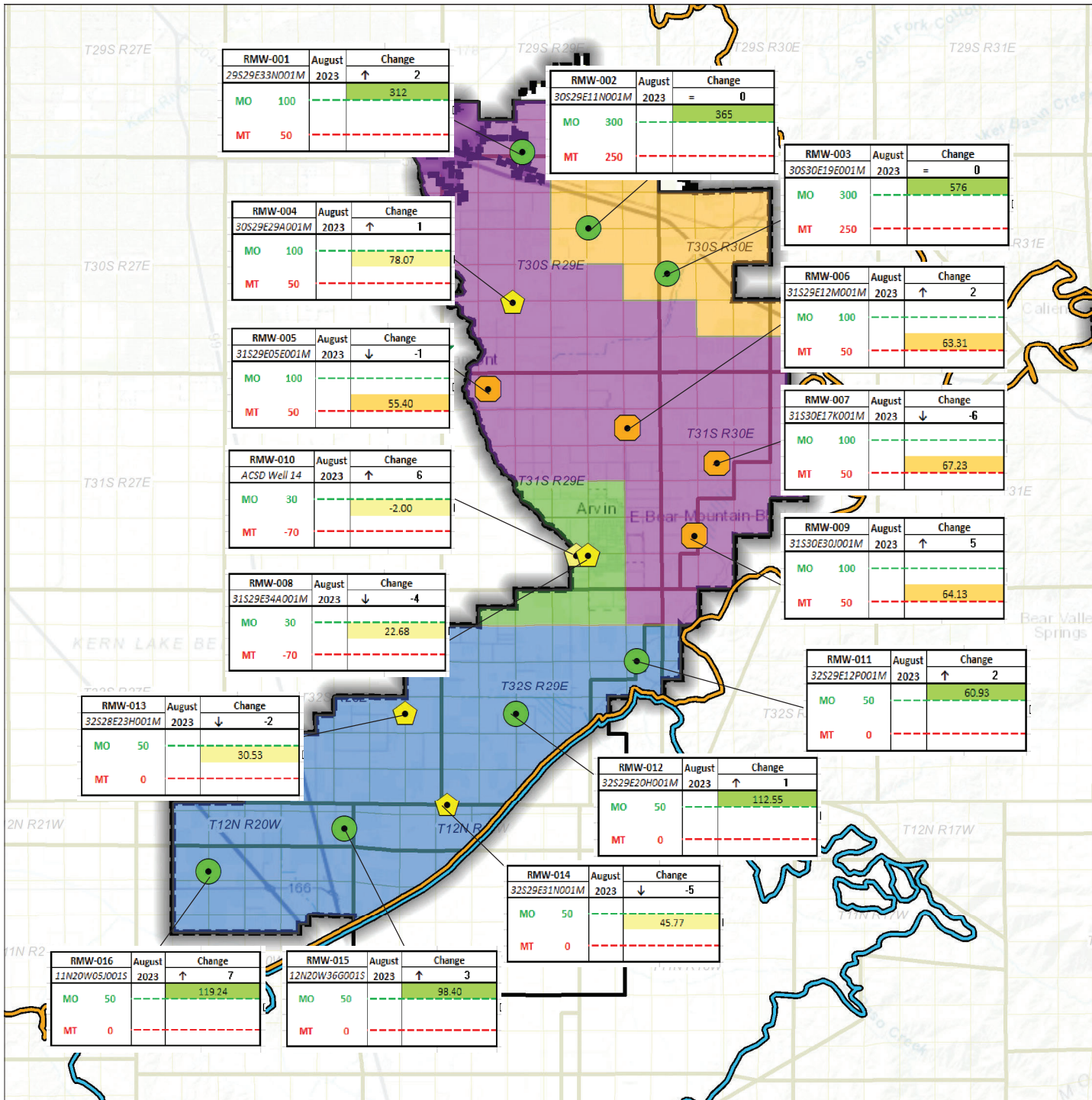
August 2023 Water Levels Relative to SMCs

South of Kern River GSP
 Kern County, CA
 August 2023
 C20055.00
Figure 1



INTERIM FIGURE - FOR INFORMATIONAL PURPOSES ONLY

Path: X:\C20055_00\Mapas\2023\08\SMC_Figures\Final_SDOUR_GWL_Level_MW_August2023.mxd



Legend
Representative Monitoring Well and Status as of August 2023

- Water Level Above MO (7 or 44%)
- ⬠ Water Level between MO and MT but closer to MO (5 or 31%)
- ⬠ Water Level between MO and MT but closer to MT (4 or 25%)

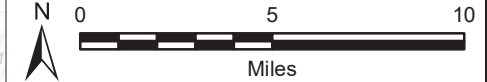
- Sustainability Criteria Zones**
- ACSD
 - Edison
 - North Canal
 - South Canal
 - Arvin GSA
 - Arvin-Edison Water Storage District

- Groundwater Subbasin**
- Kern County (DWR 5-022.14)
 - White Wolf (DWR 5-022.18)

- Abbreviations**
- ACSD = Arvin Community Services District
 - DWR = California Department of Water Resources
 - ft msl = feet above mean sea level
 - GSA = Groundwater Sustainability Agency
 - MO = Measurable Objective
 - MT = Minimum Threshold
 - RMW = Representative Monitoring Well
 - SMC = Sustainable Management Criteria

- Notes**
1. All locations are approximate.
 2. Groundwater elevations reported in units of ft msl.
 3. All water levels collected during August 2023.
 4. Arrow direction indicates water level change from previous month.

- Sources**
1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 31 August 2023.



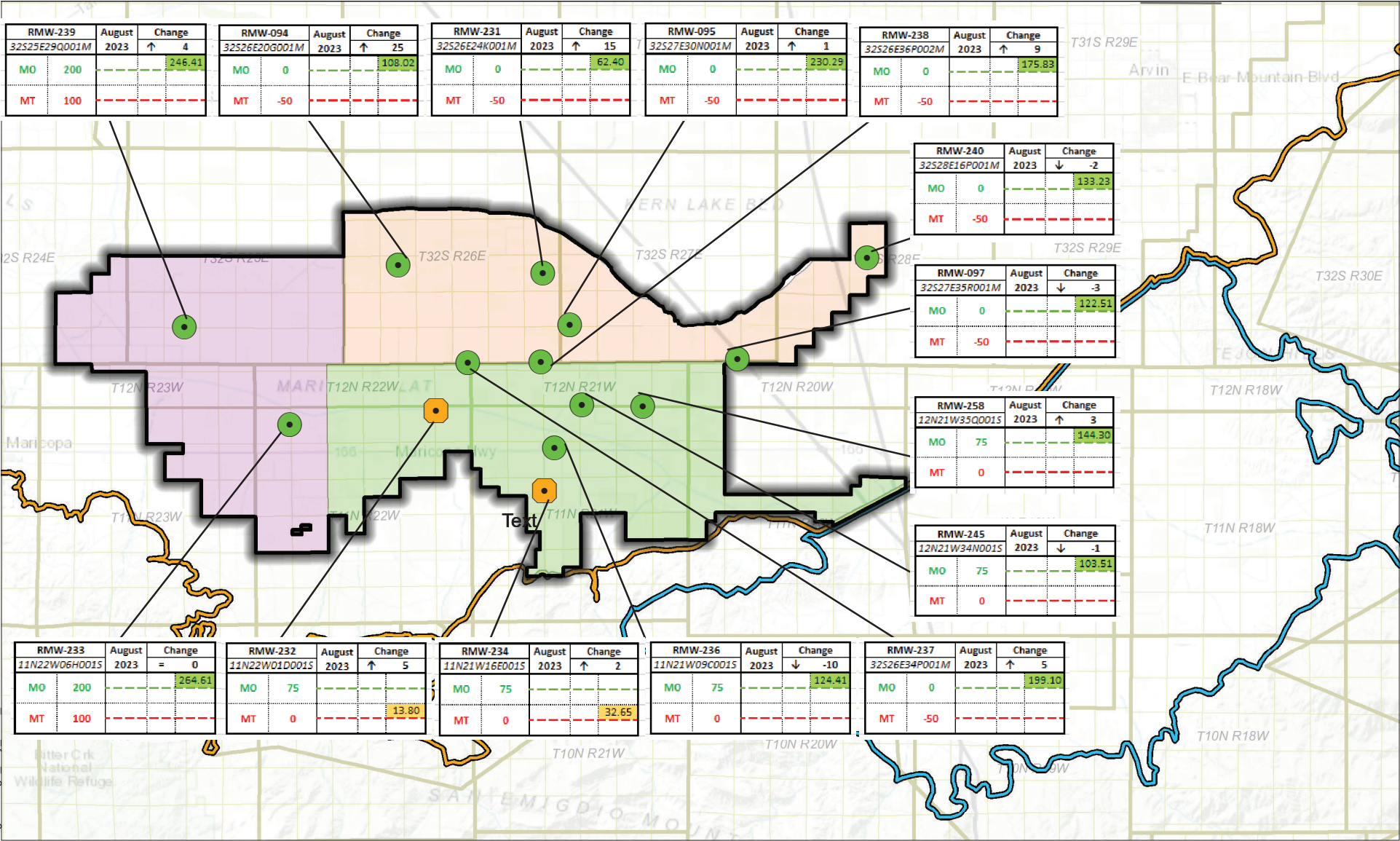
Groundwater Levels Relative to SMCs August 2023 Arvin GSA

Arvin-Edison Water Storage District
 Kern County, California
 August 2023
 B60064.10

eki environment & water

Figure 2

Path: X:\C20055.00\Maps\2023\08\SMC Figures\Fig3- July_SMC_WR.mxd



Legend

Groundwater Subbasin

- Kern County (DWR 5-022.14)
- White Wolf (DWR 5-022.18)

Sustainability Criteria Zones

- Northeast
- Southeast
- West

Wheeler Ridge-Maricopa GSA

Representative Monitoring Well and Status as of August 2023

- Water Level Above MO (12 or 86%)
- Water Level Between MO and MT but closer to MT (2 or 14%)

Notes

- All locations are approximate.
- Groundwater elevations reported in units of ft msl.
- All water levels collected during August 2023.
- Arrow direction indicates water level change from previous month.

Sources

- Basemap is ESRI's ArcGIS Online world topographic map, obtained 6 September 2023.

Abbreviations

DWR = California Department of Water Resources
 ft msl = feet above mean sea level
 GSA = Groundwater Sustainability Agency
 MO = Measurable Objective
 MT = Minimum Threshold
 SMC = Sustainable Management Criteria

N

0 4 8

(Scale in Miles)

Groundwater Levels Relative to SMCs August 2023

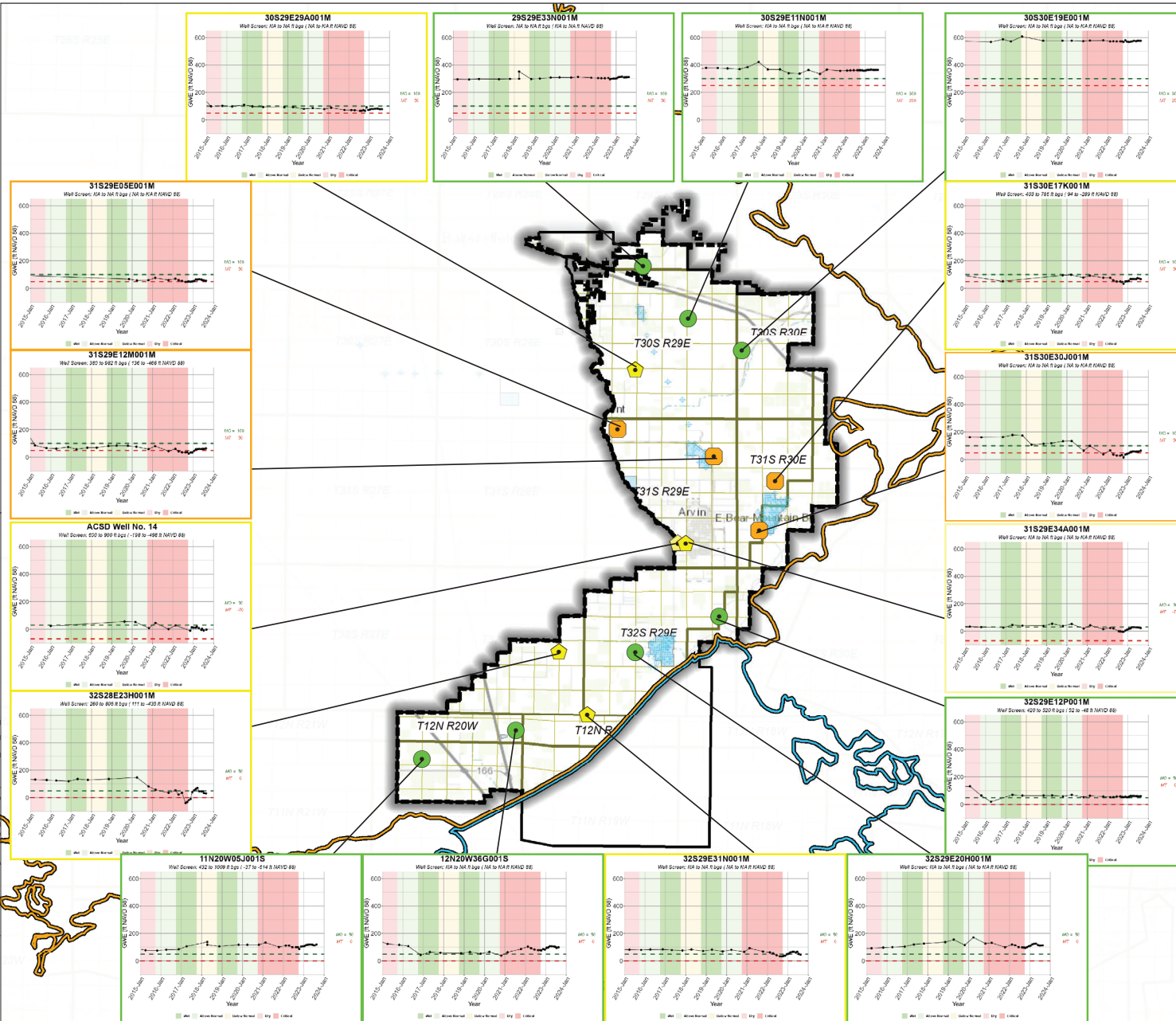
Wheeler Ridge-Maricopa GSA

South of Kern River
 Kern County, California
 August 2023
 C20055.00

Figure 3



Path: X:\C20055_00\Mapes\2023\08\SMC_Eligible\Fig4_HydrographsJune_V1_AE_2015.mxd



Legend

Representative Monitoring Well and Status as of August 2023

- Water Level Above MO (7 or 44%)
- Water Level between MO and MT but closer to MO (5 or 31%)
- Water Level between MO and MT but closer to MT (4 or 25%)
- + District Recovery Well
- AEWS D Spreading Basin
- Arvin GSA
- Arvin-Edison Water Storage District
- Groundwater Subbasin**
- Kern County (DWR 5-022.14)
- White Wolf (DWR 5-022.18)

Abbreviations

- AEWS D = Arvin-Edison Water Storage District
- DWR = California Department of Water Resources
- ft msl = feet above mean sea level
- GWE = groundwater elevation
- MO = measurable objective
- MT = minimum threshold
- RMW = Representative Monitoring Well

Notes

1. All locations are approximate.
2. Groundwater elevations are in feet mean sea level.
3. Undesirable Results are deemed to occur if groundwater levels in 40% or more (7 or more) RMWs are below their respective MT for 4 consecutive bi-annual measurements (Spring and Fall).
4. All RMW status based on August 2023 measurements.

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 6 September 2023.
2. Water level information obtained from AEWS D.



DRAFT

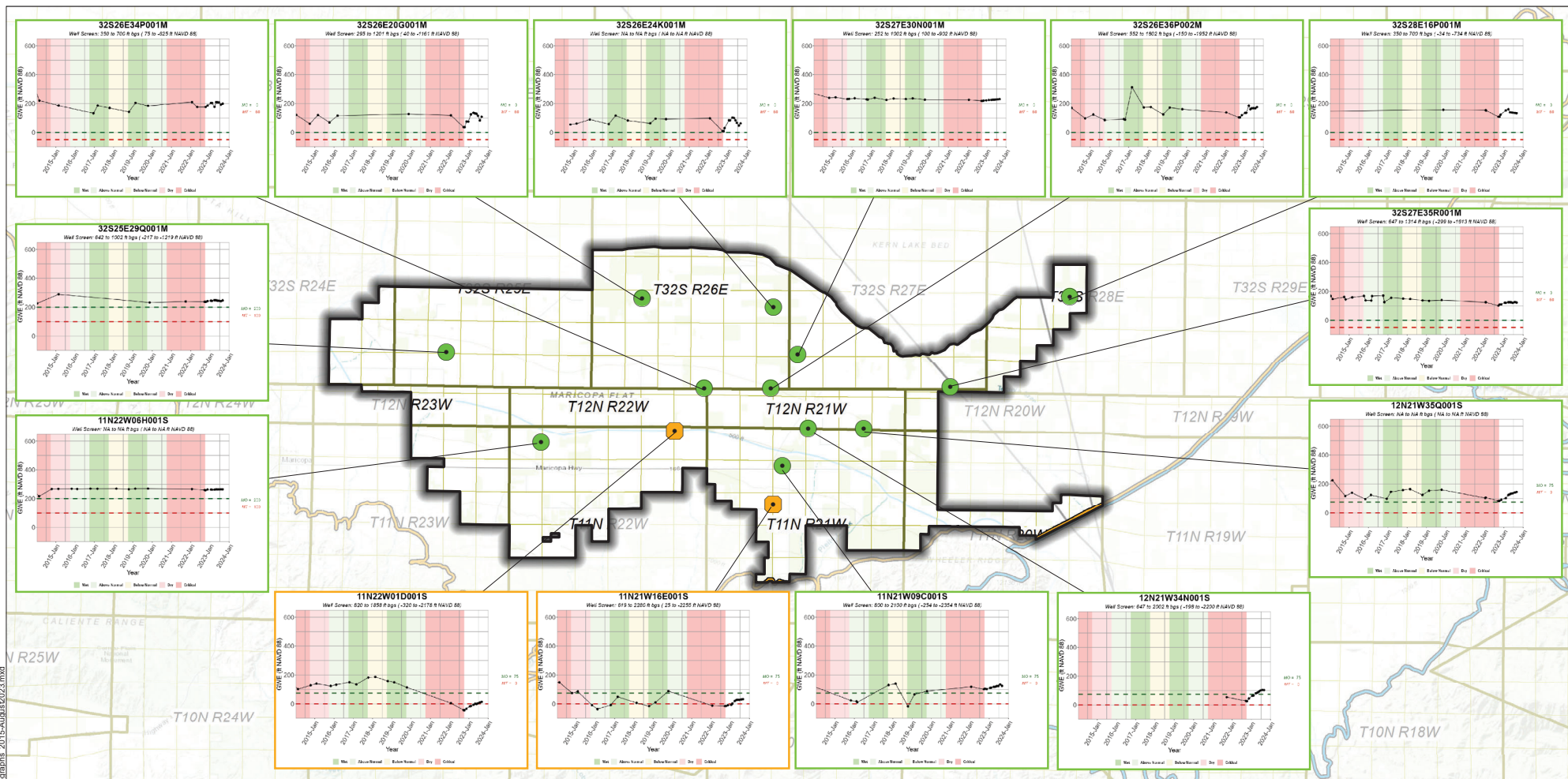
Hydrographs in Representative Monitoring Wells (Jan 2015 - August 2023)

Arvin-Edison Water Storage District
Kern County, CA
August 2023
C20055.01



Figure 4

INTERIM FIGURE - FOR INFORMATIONAL PURPOSES ONLY



Legend

Representative Monitoring Well and Status as of August 2023

- Water Level Above MO (12 or 86%)
- Water Level Between MO and MT but Closer to MT (2 or 14%)
- Wheeler Ridge-Maricopa GSA
- Kern County (DWR 5-022.14)
- White Wolf (DWR 5-022.18)

Notes

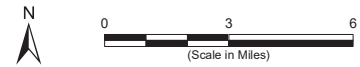
1. All locations are approximate.
2. Groundwater elevations are in feet mean sea level.
3. Undesirable Results are deemed to occur if groundwater levels in 40% or more (6 or more) RMWs are below their respective MT for 4 consecutive bi-annual measurements (Spring and Fall).
4. All RMW status based on August 2023 measurements.

Sources

1. Basemap is ESRI's ArcGIS Online world topographic map, obtained 6 September 2023.
2. Groundwater elevation data provided by WRMWS.

Abbreviations

- DWR = California Department of Water Resources
- ft msl = feet above mean sea level
- GSA = Groundwater Sustainability Agency
- MO = Measurable Objective
- MT = Minimum Threshold
- RMW = Representative Monitoring Well
- WRMWS = Wheeler Ridge-Maricopa Water Storage District



Hydrographs in Representative Monitoring Wells (January 2015 - August 2023)

Wheeler Ridge-Maricopa Water Storage District
Kern County, CA



August 2023
B70103.01
Figure 5

8 September 2023

Sheridan Nicholas
Wheeler Ridge-Maricopa Water Storage District
12109 Hwy 166
Bakersfield, CA 93313

Subject: South of Kern River Groundwater Sustainability Plan Implementation Support October through December 2023
Kern County Subbasin, Kern County
(EKI C3-164)

Dear Mr. Nicholas:

Wheeler Ridge-Maricopa Water Storage District (WRMWSO, District, or Client) has requested that EKI Environment and Water, Inc. (EKI) prepare a scope to support Groundwater Sustainability Plan (GSP) implementation activities for the South of Kern River (SOKR) Groundwater Sustainability Agencies (GSAs) in 2023. The Client approved a previous Task Order, dated 25 May 2023, that covered SOKR GSP Implementation Support through September 2023. This Task Order extends the scope of the previous agreement and covers SOKR GSP implementation activities from October through December 2023.

BACKGROUND

The SOKR GSP was adopted in July 2022 by the Arvin GSA, Wheeler Ridge-Maricopa GSA, and Tejon-Castac Water District (TCWD) GSA. The SOKR GSAs have jointly adopted a Memorandum of Agreement (MOA) that describes the coordinated implementation of the SOKR GSP. The SOKR GSP identifies the key technical aspects of GSP implementation that are the responsibility of each GSA within their respective management areas, all of which will occur to some degree during WY 2022-2023, including: (1) Monitoring, Data Collection and Data Gap Filling; (2) Projects & Management Action (P/MA) implementation; (3) Intrabasin Coordination; (4) Stakeholder Engagement; (5) Reporting; and (6) Enforcement and Response Actions. As described in the MOA, each GSA is responsible for implementing the SOKR GSP within its respective management area, bearing its own costs with respect to activities and responsibilities under the MOA, and no GSA will implement the GSP within any other GSA's management area without consent. Therefore, the scope of work below does not address these GSA-specific efforts, but is rather focused exclusively on coordinated SOKR GSP work efforts related to GSA administration, coordination and implementation.

On 2 March 2023, DWR released its determination that the Revised 2020 GSPs for the Kern County Subbasin were Inadequate, transitioning the Subbasin oversight to the State Water Resources Control Board (SWRCB). An Inadequate determination requires ongoing Plan revisions and coordination with the SWRCB. In response to the Inadequate determination, the Coordination Committee established the Technical Working Group (TWG) which has been tasked with conducting technical analyses to support recommendations to address the three deficiencies identified by DWR and to work with SWRCB Staff prior to the SWRCB noticing and holding a probationary hearing.

In the 7 June 2023 SWRCB meeting, SWRCB Staff prioritized Kern County Subbasin as fourth in line for a probationary hearing, with an anticipated hearing date of April 2024. As directed by SOKR GSAs, EKI has held a leadership role in the TWG, producing subbasin-wide work products focusing on the chronic lowering of groundwater levels sustainable management criteria (SMCs) for TWG review. As such, as part of the TWG's "Next Steps" memorandum, EKI volunteered to lead writing the common language for the SMCs GSP chapters.

SCOPE OF WORK

The tasks listed below are to facilitate coordination and administration of the SOKR GSP amongst the three SOKR GSAs through 31 December 2023.

Task 1 – GSA Coordination and Administration

EKI will support the SOKR GSAs to coordinate, participate in, and manage the following SOKR GSP meetings scheduled through 31 December 2023, including development of meeting agendas, as-needed PowerPoint presentations, meeting minutes, as-needed meeting packet memoranda and supporting documents:

- Up to three monthly SOKR Managers meetings. EKI has assumed virtual attendance at all SOKR Managers meetings. It is assumed that these meetings will be one hour in length and will include discussion of key technical matters, as well as development of agendas for the SOKR Executive Committee meetings.
- Up to three monthly SOKR Executive Committee meetings. EKI has assumed virtual attendance at the Executive Committee meetings, and that these meetings will be one and a half hours in length.

EKI assumes that SOKR GSAs will maintain and post materials to both the SOKR GSP website and their own individual GSA websites. EKI will work with the SOKR GSAs to ensure all meeting materials are posted to websites under Brown Act noticing requirements.

Task 2 – GSP Implementation Support

Task 2 involves intrabasin coordination. Specifically, EKI will support the SOKR GSAs involvement with Basin-wide activities, attendance of Basin coordination meetings with other Kern Subbasin GSAs, including attendance at Basin Study Update meetings, as-needed support and attendance at Kern Subbasin Coordination Committee meetings, and a follow up meeting with DWR California Aqueduct Subsidence Program (CASP). EKI has assumed virtual attendance and/or support at up to ten meetings, and that these meetings will be two hours in length.

Task 3 – TWG Technical Support

Task 3 involves ongoing technical support with developing a subbasin-wide strategic response. This includes participation in the TWG, TWG sub-committees, conducting subbasin-wide analyses to facilitate technical recommendations in addressing deficiencies, and as-needed support for and attendance at meetings with SWRCB Staff. Furthermore, this includes writing the common language for the SMCs GSP chapters, and supporting other GSP chapters, as needed to have coordinated draft GSPs finalized by Spring 2024.

Task 4 – Project Management

EKI will provide project management and as-needed consultation services during the GSP implementation process. This task includes coordination and communications with the SOKR GSAs, and project management services by EKI including the preparation of invoices, coordination of staff, and monthly progress reports.

PERSONNEL

EKI’s staff members who will lead this project include Anona Dutton, P.G., C.Hg. (Officer) and Christina Lucero, P.G. (Associate 1), with technical and strategic support provided by Chris Heppner, P.G. (Supervising 1), Aaron Lewis, P.E. (Associate 2), and Sarah Hodson, P.E. (Grade 4); grades in parentheses are for purposes of billing in accordance with the attached Schedule of Charges (see Attachment A). Other EKI staff members will be assigned to assist with the performance of the tasks as required to meet project commitments.

TERMS AND CONDITIONS

All work performed by EKI under this Task Order will be performed pursuant to the Terms and Conditions of our existing Agreement with Wheeler Ridge-Maricopa Water Storage District.

COMPENSATION

Inasmuch as the exact level of effort required to complete the above Scope of Work cannot be known precisely, EKI proposes to perform the work on a time and materials expense reimbursement basis in accordance with our current Schedule of Charges (Attachment A). Based on EKI’s level of effort over the last three months, the estimated budget for this scope of work is \$154,200 (see also Table 1). We will inform you if the level of effort exceeds this anticipated amount.

Table 1. Estimated Budget

TASK	Cost Estimate
Task 1 – GSA Coordination and Administration	\$21,200
Task 2 – GSP Implementation Support	\$25,700
Task 3 – TWG Technical Support	\$104,100
Task 4 – Project Management	\$3,200
TOTAL:	\$154,200

SCHEDULE

Upon authorization to proceed, EKI is prepared to start work on the above Scope of Work immediately. This Scope of Work will cover work efforts conducted from 1 October 2023 through 31 December 2023.

Sheridan Nicholas
Wheeler Ridge-Maricopa Water Storage District
8 September 2023
Page 4 of 4



EKI will inform the SOKR GSAs of any issues that arise that may affect the schedule for completion or impact the anticipated level of effort. This Task Order covers a three-month period. EKI will present an additional Task Order at the December SOKR Executive Committee meeting to cover the anticipated level of effort to support First Quarter 2024 SOKR GSP implementation.

We are happy to discuss the proposed approach and anticipated level of effort for these tasks in more detail with you and look forward to working with you on this important project. If this Task Order meets with your approval, please sign where noted below and return a fully executed copy to our office to confirm authorization to proceed. Please call if you have any questions or wish to discuss this proposal in greater detail.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.

A handwritten signature in blue ink, appearing to read 'Anona L. Dutton'.

Anona L. Dutton, P.G., C.Hg.
Vice President / Principal-In-Charge

AUTHORIZATION
WHEELER RIDGE-MARICOPA WATER STORAGE DISTRICT (CLIENT)

By _____

Title _____

Date _____

Attachments

Attachment A. 2023 Schedule of Charges

Client/Address: Wheeler Ridge-Maricopa Water Storage District
12109 Hwy 166
Bakersfield, CA 93313



Proposal/Agreement Date: 8 September 2023

EKI Proposal/Project # C3-164

SCHEDULE OF CHARGES FOR EKI ENVIRONMENT & WATER, INC.

1 January 2023

<u>Personnel Classification</u>	<u>Hourly Rate</u>
Officer and Chief Engineer-Scientist	332
Principal Engineer-Scientist	320
Supervising I, Engineer-Scientist	309
Supervising II, Engineer-Scientist	298
Senior I, Engineer-Scientist	286
Senior II, Engineer-Scientist	275
Associate I, Engineer-Scientist	264
Associate II, Engineer-Scientist	248
Engineer-Scientist, Grade 1	231
Engineer-Scientist, Grade 2	218
Engineer-Scientist, Grade 3	200
Engineer-Scientist, Grade 4	178
Engineer-Scientist, Grade 5	157
Engineer-Scientist, Grade 6	138
Project Assistant	130
Technician	125
Senior GIS / Database Analyst	162
CADD Operator / GIS Analyst	144
Senior Administrative Assistant	159
Administrative Assistant	124
Secretary	104

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus fifteen percent (15%) for items such as:

- a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- b. Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
- c. Rented vehicles, local public transportation and taxis, travel, and subsistence.
- d. Special fees, insurance, permits, and licenses applicable to the work.
- e. Outside computer processing, computation, and proprietary programs purchased for the work.

A Communication charge for e-mail access, web conferencing, cellphone calls, messaging and data access, file sharing, local and long distance telephone calls and conferences, facsimile transmittals, standard delivery U.S. postage, and incidental in-house copying will be charged at a rate of 4% of labor charges. Large volume copying of project documents, e.g., bound reports for distribution or project-specific reference files, will be charged as a project expense as described above.

Reimbursement for company-owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the rate of sixty cents (\$0.60) per mile. The rate for company-owned trucks and four-wheel drive vehicles will be seventy-five cents (\$0.75) per mile. There will be an additional charge of thirty dollars (\$30.00) per day for vehicles used for field work. Reimbursement for use of personal vehicles will be at the federally allowed rate plus fifteen percent (15%).

CADD and other specialized software computer time will be charged at twenty dollars (\$20.00) per hour. In-house material and equipment charges will be in accordance with the current rate schedule or special quotation. Excise taxes, if any, will be added as a direct expense.

Rate for professional staff for legal proceedings or as expert witnesses will be at a rate of one and one-half times the Hourly Rates specified above.

The foregoing Schedule of Charges is incorporated into the Agreement for the Services of EKI Environment & Water, Inc. and may be updated annually.

Memo

Consulting
Engineers and
Scientists

To: Kern County Subbasin Coordination Committee
Kristin Pittack, Plan Manager

From: GEI Consultants, Inc with Support from the Technical Working Group

Date: September 1, 2023

Re: Revised GSP, Next Steps, and Timeline

Executive Summary

The Technical Working Group (TWG) is composed of technical experts that represent each GSA in the Kern County Subbasin. Working at the request of the Coordination Committee (CC), the TWG is focused on communicating concerns of the GSA they represent and working collaboratively to develop methodologies for setting Sustainable Management Criteria (SMCs) that can be applied to the entire Subbasin. After obtaining group consensus, the TWG presents their recommendations to the CC through Technical Memorandums and PowerPoint presentations.

Since March, the TWG focused on subbasin-wide methodologies for the chronic lowering of groundwater levels SMCs, including minimum thresholds (MTs), measurable objectives (MOs), and the definition of undesirable results. Looking forward and considering the time remaining to submit a revised GSP, the TWG needs to work at an expedited pace to address remaining deficiencies and draft a coordinated set of Groundwater Sustainability Plans (GSPs or Plans) prior to the State Water Resources Control Board (SWRCB)'s public hearing. This TM outlines the key issues the TWG is focusing on, our approach to continue working collaboratively on technical issues, and a schedule for presenting work to the CC. We are focused on applying our technical knowledge and expertise in SGMA compliance to employ a coordinated and collaborative approach to setting SMCs and preparing GSPs that moves the Subbasin from SWRCB intervention and back to Department of Water Resources (DWR) oversight. This TM outlines the TWGs proposed next steps and schedule, including the following key elements:

- Draft GSP Outline with notes on authorship of sections to be used in each individual GSP.
- Themes, or organizing principles, will be introduced early in the GSPs and re-emphasized throughout to succinctly demonstrate how the Kern Subbasin will demonstrate progress towards achieving sustainability by 2040.
- Highlights work in progress and critical path items, such as creating a well inventory and drafting a Well Mitigation Program.

- Identifies six subcommittees that will work in parallel addressing deficiencies to enable the TWG to expedite work products and recommendations to the CC. The six subcommittees include:
 1. Alternative Methodologies for Groundwater Levels SMCs
 2. Well Mitigation Program
 3. Projects & Management Actions
 4. Subsidence
 5. Water Quality
 6. Monitoring Network

Feedback Needed from the CC

As the CC Managers and Policy members review this TM and enclosed documents, you are asked to consider the following questions to provide feedback and guidance to the TWG. Following each question, background information is provided in the form of quotes from DWR determination letters and/or SWRCB staff comments. Where applicable, TWG recommendations are also presented. More detailed information is provided in the TM to give additional context to the following questions.

1. Is there consensus on using a single GSP format with limited GSA area-specific information?

- The Kern Subbasin needs a well-explained Plan that will be implemented in a coordinated manner (Kern Subbasin Inadequate Determination Letter, pg.6, para 1).
- Emphasized strong preference for a single plan, and that if the Plan looks complex and is hard for staff to understand, “we’re going to assume its uncoordinated and inadequate” (Tina Leahy, June 23 meeting).
- DWR comments to the Kings Subbasin (GSP Assessment Staff Report, pg. 52). "Each GSP was developed using the same format, included the same sections, and, where necessary, used the same Subbasin-wide data and information. However, each GSP also contains the data and information specific to its plan area. The GSP’s sustainability goal section displays the Subbasin-wide coordination by discussing Subbasin-wide data and information, which results in each GSPs’ sustainability goal section being nearly identical. Additionally, the individualistic nature of the GSPs is displayed in each GSPs’ groundwater conditions – groundwater quality issues section which only includes the data and information pertinent to each GSP area. Although the GSAs wrote these sections using data and information related to their specific GSP area, the similarities in the format and tone of these sections allow the reader to combine the sections to infer the basin-wide groundwater conditions quickly. Department staff believes that the Subbasin’s coordination agreement, combined with the consistent GSP format, allowed the GSAs to demonstrate the presence of the intrabasin coordination required by SGMA and the GSP Regulations."

2. Does the CC concur that eight almost identical GSPs will be prepared/submitted, with a limited amount of Management Area specific information, and no separate Management Area Plans in the appendices. The current understanding of the eight GSPs and Management Areas are summarized in Table 1.

Table 1. Current GSP Groups and Management Areas

GSP	Management Areas
Buena Vista GSA	
Henry Miller GSA	
Kern Groundwater Authority GSA	Eastside WMA, Kern-Tulare, Kern Water Bank, Pioneer, Semitropic, West Kern, Westside Districts
Kern River GSA	Cal Water/City of Bakersfield, Greenfield, Kern County Water Agency, Kern Delta
Olcese GSA	
North Central Kern	Cawelo WD, North Kern WSD, Shafter-Wasco ID, and Southern San Joaquin MUD
Rosedale-Rio Bravo WSD GSA	
South of Kern River	Arvin GSA, Tejon-Castac GSA, Wheeler Ridge-Maricopa GSA

3. Does the CC agree with the TWGs proposed approach for submitting the revised GSPs as a public draft in late March 2024?
- The Proposed schedule (Attachment B) assumes the GSP would be substantially completed in February but will not be finalized until the SWRCB’s draft deficiency letter is issued (anticipated in December 2023 but likely to be delayed). This approach allows the TWG to address additional concerns brought forward by the SWRCB. The final draft GSP for public comment will be released in late March. The TWG recommends releasing the Public Draft GSP – not the adopted GSP – around March 21, 2024. This process would essentially be using SWRCB staff as public commenters.
4. Should there be an outside/independent review of the final draft plans?
- TWG recommendation is to consider David’s Engineering since they reviewed the KGA Plan and have some familiarity with the Subbasin plans and deficiency letters.

Background

The Kern Subbasin received an “Incomplete Determination” on their 2020 GSPs in January 2022. Following that determination, the GSAs and their consultants reviewed the determination letter and worked to resolve deficiencies applicable to their GSP. Redline plans were submitted to DWR in July 2022. DWR issued their “Inadequate Determination” in March 2023. Both the Incomplete and Inadequate determination letters focus on the same three deficiencies: 1) failure to use consistent methodologies and undesirable results for the entire Subbasin; 2) chronic lowering of groundwater level SMC do not satisfy the requirements of SGMA and the GSP regulations; and 3) land subsidence SMCs do not satisfy the requirements of SGMA and the GSP regulations. To address these deficiencies and improve coordination, the CC proposed the Subbasin establish a TWG that consists of Managers and/or Consultants who represent each GSA in the Subbasin.

The focus of the TWG is to work collaboratively on developing coordinated data and methodologies for setting SMCs. The most challenging issue identified was the methodology for setting chronic lowering of groundwater levels SMCs that applies to the entire Subbasin. The TWG focused their efforts from March through July on understanding each GSAs issues and criteria for setting water level SMCs, evaluating several different methodologies and results, and recommending three preferred options to the CC based on technical screening criteria. With that effort mostly complete, the TWG will focus efforts on addressing the remaining DWR deficiencies to develop coordinated GSPs that results in transitioning the Subbasin from SWRCB intervention back to DWR oversight. Key points from DWRs Inadequate Determination letter (Evaluation Summary, March 2023) that need to be addressed by the TWG are:

1. The Kern Subbasin needs a well-explained Plan that will be implemented in a coordinated manner. While DWR acknowledges the Agencies made progress toward explaining a coordinated approach, especially through development of consistent terminology, they find it difficult to evaluate whether implementation will achieve sustainability goals for the Subbasin (pg.6, para 1).
2. The Plan improved the quantitative metric that indicates when a Management Area Exceedance would occur, but the definition still does not represent or explain the groundwater conditions that would be occurring throughout the Subbasin. “This is evident because the Subbasin’s management areas still employ various data and methodologies to establish minimum thresholds and measurable objectives in which all the individual minimum thresholds are set at differing magnitudes below historic low groundwater levels (pg.6 para 2).
3. DWR points to the Todd Groundwater Technical Memorandum which indicates there is a 324,326 acre-fee per year (AFY) overdraft and explains this may be offset by the various 180 projects and management actions, but also states that most of the management areas projected water levels fall near or below the MTs without projects but will generally be above the MTs if projects are fully implemented. Considering this information,

Department staff express concern that there still appears to be no real analysis or understanding of the effects of the groundwater conditions and that groundwater levels will continue to decline for years before a Subbasin-wide undesirable result is declared (pg. 6 para 3 and pg. 7 para 1-2).

4. Considering the fine margins to achieve sustainability (e.g., -45,965 AFY change in storage at 2070 climate with projects), Department staff continue to be concerned the Subbasin will not be able to achieve sustainability with the various data and methodologies used to establish SMCs (pg.7 para 3).

To date, the TWGs focus has been identifying a common methodology for setting chronic lowering of groundwater levels SMCs. EKI led the effort and submitted a Technical Memorandum (TM) to the CC on August 1. Based on CC feedback, a hybrid methodology was developed and is currently undergoing review. With that effort nearly complete, the TWG was asked to outline their next steps with a timeline of work that needs to be completed prior to the SWRCB's public hearing (originally planned for April 2024) that will either end state intervention or designate the Kern Subbasin as probationary. This TM discusses the TWG's recommended approach to submitting revised GSPs, subcommittees focused on coordinated data and methodologies for the Subbasin, and work products needed to address deficiencies.

GSP Approach

Enclosed with this TM is a draft Kern GSP Outline (Appendix A) with comment boxes identifying where members of the TWG have volunteered to lead authorship. Areas of the plan where GSA specific information is envisioned are also highlighted. Considerations for the recommended GSP structure are predominately based on SWRCB staff feedback during the June 23 meeting. Comments noted during that meeting include:

- Staff were highly critical that Kern plans are overly complicated; the first submittal was ~30k pages; and redline edits were ~13k pages.
- Review duration will be a function of plan length and complexity. If the Subbasin wants the revised Plans reviewed before the public hearing, they need to be succinct, nearly identical, and easy to read.
- Emphasized strong preference for a single plan, and that if the Plan looks complex and is hard for staff to understand, "we're going to assume its uncoordinated and inadequate" (Tina Leahy, June 23 meeting).
- SWRCB staff also commented that PMAs should include demand reduction as "Plan A" and Projects as "Plan B".
- Legal team members recommended a very coordinated series of plans that all read exactly the same except for a small section at the end of each chapter that discusses local specifics.

A staff member recommended explaining what is managed differently to achieve sustainability for local beneficial users, not why an area is different.

To support the revised GSP efforts, the TWG established six subcommittees who are focusing on addressing specific deficiencies (i.e., Groundwater Level SMCs, Well Mitigation Program, Projects & Management Actions, Subsidence SMCs, Water Quality SMCs, and Monitoring Network). Similar to the process employed for Chronic Lowering of Groundwater Levels SMCs, each subcommittee will work to understand Subbasin-wide issues and recommend a coordinated approach that will be vetted through the full TWG, then presented to the CC before integrating into the Plans.

GSP Themes / Organizing Principles that will be emphasized throughout the GSPs

One challenge of explaining the Subbasin's approach to sustainability is being limited in discussing some key elements of the Subbasin's groundwater management activities until the Projects & Management Actions section, which is typically at the end of the plan. To address this, the TWG identified a set of themes – or organizing principles – that address deficiencies throughout the Plan. These organizing principles will be introduced early in the GSPs and touched on at key points throughout the Plan to succinctly emphasize their role in achieving subbasin-wide sustainability and to satisfy the concerns of DWR and the SWRCB. Section 5 of the GSP, Description of the Plan Area, introduces the following themes/organizing principles.

1. **Coordination:** clear description of the Subbasin-wide efforts to coordinate the GSPs and SGMA implementation.
2. **5 Areas of the Subbasin:** This theme will be used to tell a story of the Subbasin geologic characteristics and explain the differences in each area. Dividing the Subbasin into 5 geographically defined areas that are named and discussed consistently through GSP, which should make it easy for State Board staff to interpret and enable Management Areas to succinctly describe why their management approach is appropriate to their area. The five areas will be described as Western Fold Belt, Eastern Basin Margin, Kern Fan, Northern Subbasin (North of Kern Fan), and Southern Subbasin (South of Kern Fan). Refer to Appendix B, Geographic Areas of the Kern Subbasin.
3. **Subbasin Banking Programs.** Introduces Kern's history of banking surface water, explains the different programs (banking, conjunctive use, in-lieu), how they operate, and the importance of these programs to sustainable groundwater management.
4. **Demand Management:** Focuses on a consistent message regarding overdraft conditions and addresses SWRCB staff comment "Plan A should be a demand reduction program while the GSAs work on Plan B, which is to increase supply" (SWRCB meeting 06/23/23). The proposed GSP provides a section for each Management Area to address the demand management and associated respective paths to sustainability.
5. **Beneficial Uses/Users:** Describes the stakeholders in the Subbasin, how GSAs are working collaboratively to avoid impacts to domestic and small community wells, and how to holistically address drinking water issues in the Subbasin through the Well Mitigation Program.

Members of the TWG have volunteered for lead authorship of various Sections of the GSP, which aligns with their area of expertise or interest in the topic. As you scroll through the GSP, more detailed comments are provided to explain where the subcommittees will provide inputs and who is supporting the lead authors with content or with authoring subsections. Table 2 shows the colors used in the GSP Outline to represent the lead authors. The assignment of authors is largely volunteer based with contributors added in areas where their expertise fits them to the task. A more detailed breakdown of lead authors and supporting contributors is shown in the draft GSP outline.

Table 2. Lead Authorship of GSP Sections

*Highlight	Technical Lead
	Consolidate/synthesize from 2022 plans (EKI offered staff)
	Notice and Communication (GEI offered staff)
	Mike / Phyllis with support from Dave and Larry
	Annona / Christina with support from subcommittees
	Stephanie / WQ Subcommittee
	Tom Watson / Subsidence Subcommittee
	Jon & Micah (Banking Programs)
	Will & Vanessa / Monitoring Network Subcommittee
	Dan Bartel / PMA Subcommittee
	GSP Area Specific

*The highlight color serves as a legend to the GSP Outline highlights

Work In Progress

1. EKI with support from the TWG submitted a TM to the CC summarizing results of the various methodologies for Groundwater Level SMCs. The CC is to provide input to EKI to finalize this effort at their September 11 meeting.
 - o A new hybrid MT methodology was presented during the August 15 CC meeting and CC agreed the TWG should review the proposed hybrid MT methodologies and regroup.
 - o Need to finalize MTs, MOs and definition of Undesirable Results pending CC feedback and establish IMs.
2. GEI is working with Kern County Environmental Health to obtain their Well Completion Report data and will use that information to reconcile DWR Online System of Well Completion Reports (OSWCR). The expected outcome of this work will be a clean, well-understood dataset of wells, which will be used to define beneficial users in the Kern Subbasin. It will also serve as the baseline Well Inventory that is recommended in DWR's *Considerations for Identifying and Addressing Drinking Water Well Impacts*, released in March 2023. A public records request was submitted to Amy Rutledge at Kern County on 06/29/23; GEI met with Amy to review and explain the project objectives on 07/14/23; confirmed Kern County's counsel and Director of Public Health approved the data

request on 07/27/23; data was received on 08/28/23. Reconciled data will be used to develop a comprehensive Well Inventory and will be provided to EKI for the final well impacts analysis. This well inventory will provide:

- Accurate count of well types and status based on property owner intended use statements to Kern County Environmental Health and/or Kern County Water Agency (i.e., active, abandoned, destroyed, etc.).
- Reconcile other public datasets – such as Division of Drinking Water (DDW) and GeoTracker – to get an accurate count of wells and their status (i.e., OSWCR data shows 131 public supply wells, but DDW dataset shows 490 wells).
- Clarify the well type for 3,677 DWR records labeled as “other/unknown” category. SWRCB staff believe most of these records will be domestic wells, which is why they’re pushing GSAs to develop and maintain a Well Inventory.
- The reconciled dataset – or Subbasin Well Inventory – will be applied to the final selected MT to accurately quantify impacts to beneficial users and undesirable results. This will become part of the Subbasin’s common data and methodologies. Each GSA will be provided with the reconciled data, which can be filtered to their GSA Management Area.
- It is recommended that this Well Inventory is incorporated into the DMS for long-term maintenance and reference to future GSP updates.

Critical Path Items

1. OSWCR dataset reconciling to develop a well inventory that quantifies domestic well density, where they’re mostly likely to be dewatered (critical areas of the Subbasin to maintain water levels), and accurately defines impacts to beneficial uses and users.
2. Well Mitigation Program needs to be outlined and agreed to across the entire Subbasin.
3. Basin Study model results for updates to projected water budgets by GSP Group for the revised Plans.
4. Prepare a list of definitions to be used in the revised GSPs to ensure consistent terminology is used throughout the Plans.
5. A workshop for key stakeholders (e.g., landowners, local water districts etc.) prior to implementing any agreed upon methodology proffered by the CC for inclusion in the revised GSP submittals.
6. Appendix C provides a schedule of activities through the end of February, when the Public Draft GSP is proposed to be complete.

TWG Subcommittees

Subcommittees will work in parallel to more efficiently address DWR deficiencies. Focus of the subcommittees is to develop a coordinated approach then present their recommendations to the TWG, the CC, and some topics will be presented to the SWRCB. Each group will schedule and lead their committee meetings, and coordinate with Kristin on presenting their work during the regularly scheduled TWG working meetings. Objectives, tasks, and deliverables for each

Subcommittee are outlined in the following sections. Additionally, each subcommittee is expected to provide content and SMCs for the final GSP; generally, the committee chair (bold name in members list) is the lead author identified in the proposed Draft GSP Outline.

Alternative Methodologies for Groundwater Levels SMCs Subcommittee	
Members:	Anona , Christina, Larry, Abhi, Tom, Will, and David
Objective:	Identify Groundwater Level SMC methodology the entire Subbasin will apply in the revised plan.
Tasks:	<ul style="list-style-type: none"> • Develop methodologies applicable to the entire Kern Subbasin. • Calculate results of each proposed MT and share with the TWG. • Prepare script to evaluate impacts to domestic well users.
Deliverables:	<ul style="list-style-type: none"> • Presentation to CC on proposed methodologies. • TM describing methodologies proposed by the TWG, results of each methodology with figures, and recommendations for the top 3 methodologies.
Progress:	<ul style="list-style-type: none"> • Recommended methodologies presented to the CC on July 19. • TM summarizing all methods considered was delivered to the CC on August 1. • During the CC’s August 7 review/voting meeting, two hybrid methodologies were proposed. The CC agreed to postpone decision-making until they received the alternative approach from Semitropic Water Storage District. • SWSD/Larry will present alternate methodology on August 15.
Next Steps:	<ul style="list-style-type: none"> • Finalize MTs, establish IMs, MOs, and URs. • TWG works on consensus during their September 6 review meeting. • Present draft SWRCB Presentation on MTs to CC on September 11. • Draft SWRCB presentation to CC on GWL SMCs, Well Inventory, and proposed Well Mitigation Program on September 27. • SWRCB presentation on GWL SMCs, Well Inventory, and proposed Well Mitigation Program October 4. • Debrief to CC on SWRCB Meeting on October 11.

Consider DWR comments to the Kings Subbasin related to Undesirable Results (GSP Assessment Staff Report, August 2024).

- o The Plan redefines the Subbasin’s undesirable result definition as “the chronic lowering of groundwater levels which would cause a significant and unreasonable reduction in the long-term viability of domestic, agricultural, municipal, or environmental uses over the GSP’s planning and implementation period. The Plan states that the primary concern related to undesirable results are groundwater levels declining in dry periods to the point that they will not likely recover during normal/wet periods or a significant and unreasonable number of

shallow domestic wells going dry. The Plan defines 15% of domestic wells going dry as significant and unreasonable.” (pg. 8, para 4)

- “The Plan was updated to have a consistent criterion to define the presence of an undesirable result; this criterion is 15% of a GSP's representative monitoring sites exceeding their minimum threshold during a single monitoring event.” (pg 8, para 4) and the Plan was updated to have a consistent criterion to define the presence of an undesirable result” (pg. 8, para 5).

Well Mitigation Program Subcommittee

Members:	Stephanie, Dan, Jon, Abhi
Objective:	Prepare guideline for Domestic Well Mitigation Program focused on minimizing and mitigates impacts of groundwater levels declining below historic low during the SGMA implementation period.
Tasks:	<ul style="list-style-type: none">• Prepare a draft plan for Subbasin coordination, using existing JOC plan, DWR guidance, and other relevant materials for background information.• Identify/recommend partnerships to be developed during plan implementation.
Deliverables:	<ul style="list-style-type: none">• Reconciled OSWCR dataset (Well Inventory) to quantify domestic and small community wells potentially impacted and due mitigation.• Draft proposed plan.• Coordinate with PMA Subcommittee on MT Exceedance Policy
Progress:	<ul style="list-style-type: none">• Working on reconciling OSWCR and data from Kern County EHS.• Working with TWG to draft the proposed plan.
Next Steps:	<ul style="list-style-type: none">• Well Inventory to EKI by September 7.• TWG works on consensus during routine September meeting.• Present draft plan to the CC on September 20.• Draft SWRCB presentation to CC on GWL SMCs, Well Inventory, and proposed Well Mitigation Program on September 27.• SWRCB presentation on GWL SMCs, Well Inventory, and proposed Well Mitigation Program October 4.• Debrief to CC on SWRCB Meeting on October 11.

Considerations from SWRCB staff meeting on June 23.

- Emphasized the importance of a well inventory.
 - Don't ignore "other" and "unknown" well types in DWRs dataset.
 - Generally OK with screening wells by age in the impacts analysis as long as they're not excluded from mitigation.
- "How is one well going dry not significant?"
- Note the "impacts" to well users go as far as understanding the effects on property owners from having to deal with water outage, and issues with temporary replacement water while they're waiting for the new well.
- Make sure to define the full impacts and full scope of mitigation.
- Brief discussion to confirm we understand their expectation for what a mitigation program should look like
- Consider DWR comments to the Kings Subbasin regarding the Objective and Proposed Plan (GSP Assessment Staff Report, August 2024).

- “GSAs should demonstrate successful development and initial implementation of the Domestic Well Mitigation Program (Program) by the next periodic evaluation. This demonstration should, at a minimum, provide the source and amount of funding secured, the well mitigation request and evaluation processes, and a summary of the requests received, approved, and completed” (pg. 56, Corrective Action 1c).
- “To address the impacted domestic wells, the GSAs propose to implement a Domestic Well Mitigation Program (Program). The Plan outlines the processes to develop policies and procedures for mitigating domestic wells that go dry or are in imminent threat of going dry. The Plan states that the potentially impacted wells are generally limited to shallow domestic wells since most irrigation wells and agency-owned wells are deeper; however, the Program will also consider mitigating small water supply systems and certain agricultural wells that may be impacted (pg. 11, para 3). The Program is estimated to cost approximately \$40 million. [...] Although specific funding mechanisms remain to be addressed and implemented, at this time, Department staff believe the Program is feasible. For example, the GSAs have authority under SGMA to impose fees on the extraction of groundwater. If the GSAs elected to fund the Program this way, based on the Plan’s estimate that an average of over 1 million acre-feet of groundwater is extracted annually from the Subbasin, an extraction fee of only two dollars (\$2.00) per acre-foot imposed for only the next ten years of Plan implementation could fully fund the Program (pg. 12, para 1).
- “Department staff consider the implementation of the Program critical to concluding that the GSAs have taken sufficient action to address deficiency one. As a result, by the Plan’s next periodic evaluation, the GSAs must demonstrate the Program’s successful development and initial implementation” (pg. 12, para 2).

Projects & Management Actions Subcommittee

Members:	Dan, Larry, David, Mike
Objective:	<ul style="list-style-type: none">• Coordinate with all GSP Groups on demand management programs and other projects to steer the Subbasin to acknowledge State Board staff are skeptical about accepting “new water” as a solution to overdraft (i.e., considered as “Plan B”).• Work with each GSP Area to review and update PMA’s and SGMA compliance plans that align with guidance from the TWGs June 23 SWRCB meeting.
Tasks:	<ul style="list-style-type: none">• Prepare a tabular and graphical format for GSA presentation of the list of PMAs in their portion of the Subbasin. Consider the GSP Outline where there is Subbasin wide implementation and smaller sections for the 8 GSP groups.• Quantify impacts of PMAs to demonstrate how it mitigates overdraft, correlates to a coordinated glidepath towards sustainability, and aligns with proposed model results presented in water budget section.• Draft description outlines of PMAs to be used in the revised GSP.
Deliverables:	<ul style="list-style-type: none">• PMA package to be used by each GSA with quantified results and estimated timeframe of implementation (align with 5-year updates)• Draft language for revised GSP• MT Exceedance Policy
Progress:	<ul style="list-style-type: none">• Draft text for GSP•
Next Steps:	<ul style="list-style-type: none">• Present to the CC on October 18.• Present Draft SWRCB presentation on Subsidence SMCs and Path to Sustainability to CC on November 1.• SWRCB presentation on Subsidence SMCs and Path to Sustainability Presentation to SWRCB on November 15 (TBD).• Debrief on SWRCB meeting feedback November 29.

Considerations from SWRCB staff meeting on June 23.

- Advised not to rely on any supply augmentation. All available surface water is fully allocated so State Board staff are not accepting “new water” as a solution to overdraft.
 - Recycled water might be an exception to water supply augmentation.
- Plan A should be demand reduction while the GSAs work on Plan B, which is to increase supply.
- If an overdrafted GSA is relying on supply augmentation, they really need to show their work including water rights information to prove the supply is real.
- Consider DWR comments to the Kings Subbasin (GSP Assessment Staff Report, August 2024).

- “Department staff recommend that for those management actions responsible for eliminating overdraft, the GSAs provide an updated timeline which includes when the GSAs expect to implement those management actions and the expected demand management benefits required to reach sustainability” (pg. 50, para 4).

“Department staff recommend the GSAs articulate how project and management action implementation may change, whether expedited or additional management actions are implemented, for the Subbasin to maintain its progress to sustainability when interim milestones are missed” (pg. 51, para 2).

Subsidence Subcommittee	
Members:	Tom , Mike, Abhi, and Anona with a limited role
Objective:	Work with TWG members to consistently define what qualifies as Management Area critical infrastructure and establish SMCs.
Tasks:	<ul style="list-style-type: none"> • Propose methodology for setting SMCs at Regional Critical Infrastructure. • Develop method to correlate SGMA related groundwater management subsidence and define relationship between subsidence and GWL SMCs. • Based on current data, and discussions with DWR and CASP assess the value and potential responsibility/liability to landowners of capping MTs in buffer zones, present final recommended approach to TWG and CC. • Anona would like to work with the Subcommittee on the GWL relationship. • Develop method to correlate Oilfield-related groundwater extractions to subsidence, and the applicable sub-areas of the Subbasin.
Deliverables:	<ul style="list-style-type: none"> • Presentation to CC on findings and conclusions of subsidence studies to date. • Presentation to CC of proposed methodologies. • TM describing methodologies proposed by the TWG, results of each methodology with figures.
Progress:	<ul style="list-style-type: none"> • Draft present with background information provided to TWG. • Update TWG and CC on CASP meetings/discussions.
Next Steps:	<ul style="list-style-type: none"> • Develop Subbasin-wide SMCs with undesirable results and correlation to GWL SMCs. • Present Subbasin Demand Management and Path to Sustainability to CC on October 18. • Draft Subsidence SMCs and Path to Sustainability Presentation to CC on November 1. • Subsidence SMCs and Path to Sustainability Presentation to SWRCB on November 15 (TBD). • Present preferred approach to SWRCB on November 15 (TBD). • Debrief on SWRCB meeting on November 29.

Consider DWR comments to the Kings Subbasin regarding SMCs Objective and the Task to define the relationship between subsidence and GWL SMCs (GSP Assessment Staff Report, August 2024).

- "...the Plan does not thoroughly provide the information and criteria required by the GSP Regulations when justifying the reestablished minimum thresholds. Specifically, it is

unclear whether all irrigation canals within the Subbasin have 3 feet of remaining freeboard or whether the 3 feet justification is based on assumed initial design (pg. 15, para 1).

- The GSAs have not provided justification for reducing the freeboard, nor correspondence from infrastructure owners that encroaching upon the freeboard is acceptable. Thus, Department staff conclude the GSAs have not provided sufficient justification that the criteria of 3 feet would avoid substantial interference with land use” (pg. 15, para 2).

“The MAGSA, NFKGSA, and JSA should provide justification for how they have determined that their GSP’s chronic lowering of groundwater level minimum thresholds will not result in a land subsidence undesirable result” (pg. 55, para 3).

Water Quality Subcommittee	
Members:	Stephanie , Phyllis, Anona
Objective:	Coordinate/synthesize water quality analysis completed in KGA, KRGSA, and SOKR GSPs and prepare a consistent methodology for the revised GSPs.
Tasks:	<ul style="list-style-type: none"> • Propose methodology for setting SMCs. • Identify/recommend water quality monitoring program for SGMA purposes, using existing monitoring programs to the extent possible. • Work with Anona and Phyllis on relationship between degraded WQ and GWLs.
Deliverables:	<ul style="list-style-type: none"> • Presentation to CC on analysis and proposed SMCs.
Progress:	<ul style="list-style-type: none"> •
Next Steps:	<ul style="list-style-type: none"> • TWG works on consensus week of November 27. • Present proposed SMCs to CC on December 13. • No presentation to SWRCB.

Consider DWR comments to the Kings Subbasin regarding the methodology for setting SMCs (GSP Assessment Staff Report, August 2024).

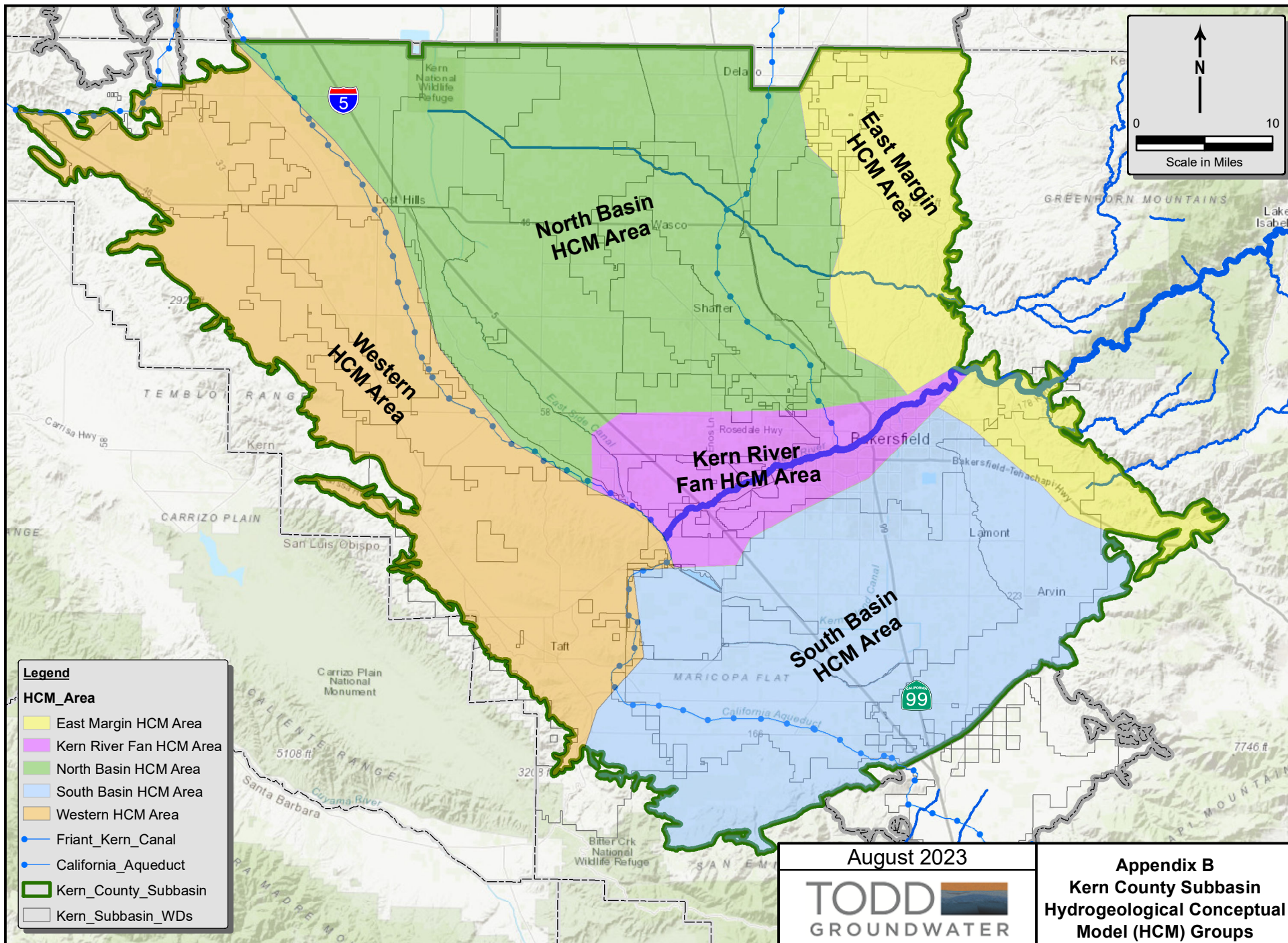
- “Describe the basin-wide methodology for identifying the Subbasin’s chemicals of concern. This description should explain why each GSP established sustainable management criteria for different chemicals of concern” (pg. 59, recommendation 9a).
- “Clarify what the basin-wide criteria to determine the presence of an undesirable result is. This criterion should be used by each GSP” (pg. 59, recommendation 9b).

Monitoring Network Subcommittee

Members:	Will, Vanessa, Mike
Objective:	<ul style="list-style-type: none">• Identify which aquifer the RMWs represent and evaluate the monitoring network to confirm it is representative of the area (i.e., completed depth is \geq the MT, screened intervals appropriate to the aquifer, consistent spatial distribution of the Subbasin, etc.)• Update data gaps in monitoring of sustainability indicators present in the Subbasin.
Tasks:	<ul style="list-style-type: none">• Work with GSAs to enter well construction and aquifer data into the DMS for all RMWs.• Confirm the Subbasin has adequate spatial and hydrogeologic representation.• Assist with GSP discussion of the Monitoring Network.
Deliverables:	<ul style="list-style-type: none">• Presentation to CC on findings of RMS analysis.• Coordinate with GSAs on recommended improvements.
Progress:	<ul style="list-style-type: none">• Formation of subcommittee members• No reportable progress
Next Steps:	<ul style="list-style-type: none">• TWG works on consensus week of December 18.• Schedule first meeting and discuss/update scope.• Present to the CC on January 10.

Consider DWR comments to the Kings Subbasin (GSP Assessment Staff Report, August 2024).

- “The GSAs should ensure that the chronic lowering of groundwater levels monitoring network adequately accounts for each principal aquifer” (pg. 45, para 1).



Legend

HCM_Area

- East Margin HCM Area
- Kern River Fan HCM Area
- North Basin HCM Area
- South Basin HCM Area
- Western HCM Area
- Friant_Kern_Canal
- California_Aqueduct
- Kern_County_Subbasin
- Kern_Subbasin_WDs

August 2023

TODD **GROUNDWATER**

Appendix B
Kern County Subbasin
Hydrogeological Conceptual
Model (HCM) Groups

Technical Working Group Timeline
Appendix C
 Schedule of Meetings Deliverables

Draft TWG Next Steps Working Schedule

Activity	September 2023				October 2023				November 2023					December 2023				January 2024				February 2024				March 2024				
	1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
GSP Sections																														
Executive Summary																														
Introduction																														
Plan Area																														
Basin Setting																														
Water Budget																														
SMCs																														
Undesirable Results																														
Groundwater Levels																														
Subsidence																														
Water Quality																														
Interconnected Surface Water																														
Others																														
Monitoring Network																														
Water Budget																														
P/MAs																														
Projects																														
Demand Management																														
Plan Implementation																														
Communication and Engagement																														
Meetings																														
TWG Meetings	6-Sep																													
Subcommittee Meetings																														
Alternative SMCs																														
Subsidence																														
Water Quality																														
Well Mitigation																														
P/MAs																														
Monitoring Network																														
CC Meetings	11-Sep	20-Sep	27-Sep		11-Oct	18-Oct		1-Nov					29-Nov		13-Dec						10-Jan		24-Jan		7-Feb		21-Feb		6-Mar	
State Board Workshops					4-Oct							15-Nov																		
Other Activities																														
Noticing				1																									2	
Review Periods																														
GSP Milestones																														

Subcommittee Presentations
Alternate GWL SMC Methodologies
Well Mitigation Program
Projects & Management Actions
Subsidence
Water Quality
Monitoring Network

GSP Schedule	
1	Completion of issuance of 90-day notices by all GSAs
2	Notification of release of public review draft
1	Completion of internal review draft and submission to outside reviewer
2	Presentation of draft to CC and distribution to GSAs
3	GSA comments prior to public release
4	March 21 - Release of public review draft and delivery to State Board

Public Review Period

Appendix C
Meeting Dates and Topics

Coordination Committee and SWRCB Meetings

09/11/23	Recommended GWL Methodology and draft SWRCB Presentation
09/20/23	Proposed Well Mitigation Program
09/27/23	DRAFT SWRCB presentation on GWL SMCs, Well Inventory, and proposed Well Mitigation Program
10/04/23	SWRCB presentation on GWL SMCs, Well Inventory, and proposed Well Mitigation Program
10/11/23	Debrief on SWRCB meeting
10/18/23	PMA Subcommittee presents on Demand Mangement and Path to Sustainability
10/25/23	Subsidence Subcommittee presents proposed Subbasin SMCs
11/01/23	Draft SWRCB presentation on Subsidence SMCs and Path to Sustainability
11/15/23	SWRCB Meeting to present Subsidence SMCs and Path to Sustainability
11/29/23	Debrief on SWRCB meeting
12/13/23	Water Quality SMCs
01/10/24	Monitoring Network