MID-KAWEAH GROUNDWATER SUSTAINABILITY AGENCY BOARD

SUMMARY MINUTES

November 12, 2019 – 3:00 p.m.

Tulare Public Library & Council Chambers
491 North M Street – Tulare, CA 93274

MEMBERS PRESENT: Dennis Mederos, David Martin, Steve Nelsen, David Bixler, Howard Stroman, Greg Collins

STAFF PRESENT: Paul Hendrix, Valerie Kincaid, Aaron Fukuda, Leslie Caviglia, Randy Groom[3:23 p.m.], Rob Hunt, Trisha Whitfield, Mario Orosco, Roxanne Yoder

OTHERS PRESENT: Chris Petersen (GEI), Blake Wilbur (Chair, Advisory Committee), Craig Moyle (Stantec)

1. **CALL TO ORDER**
   Chair Mederos opened the meeting at 3:03 p.m.

2. **PUBLIC COMMENT** – The public may comment on any subject within the jurisdiction of the Board, including items on the agenda. Speakers will be allowed three minutes, unless otherwise extended by the Board Chair. The Board cannot legally discuss or take official action on items presented under public comment.

   Chair Mederos called for comments from any members of the public present at the meeting. None were forthcoming.

3. **CLOSED SESSION**
   Chair Mederos adjourned to closed session at 3:04 p.m. for the item as noted by Legal Counsel V. Kincaid.

   a. Gov't Code §54956.9 – Anticipated Litigation

   Chair Mederos reconvened from closed session at 3:43 p.m.; there were no reportable actions taken therein.

4. **GENERAL BUSINESS**
   a. Approval of Minutes of Regular Meeting on October 8, 2019
      Chair Mederos requested an amendment to the minutes to include the statement presented by G. Collins entitled "Tragedy of the Aquifer." It was moved by D. Bixler, seconded by H. Stroman, to include that statement into the minutes. It was then moved by D. Martin, seconded by G. Collins and unanimously carried, to approve the minutes of the October 8, 2019 meeting as amended.

b. Financial Report

i. Financial Statements – Year-to-Date

K. Artis provided an overview of the financial statements for the Board's review and consideration. She highlighted entries in the balance sheet, profit & loss statement and transactions list. She noted several entries in the profit & loss statement relative to the associated budget figure. Questions posed by H. Stroman were addressed by Ms. Artis. It was then moved by G. Collins, seconded by H. Stroman, and unanimously carried to approve the report as submitted.

c. Legal Counsel Report

i. Subbasin Coordination Agreement – Status

Legal Counsel V. Kincaid provided an update for the Board's review and consideration. She noted the previous review of the Agreement before the Board and the recent GSA manager/legal representative meeting to advance the Agreement and associated appendices. Director Collins asked if each GSA's Plan will be judged individually or collectively with the others within the Subbasin, to which Ms. Kincaid answered that both evaluations may be utilized by DWR.

d. Advisory Committee – Report by Committee Chair

i. Consideration of Draft GSP Comments – Recommended Responses

B. Wilbur provided a PowerPoint presentation for the Board's review and consideration. He discussed the prioritization of the comments, the review process, and the individual comment themes for which Committee recommendations are being made. With no public comment forthcoming it was moved by S. Nelsen, seconded by Vice Chair Martin and unanimously carried, to accept the recommended comment responses from the Advisory Committee for incorporation into the GSP.

e. GSP – Status

i. Consultant Cost Estimate for Final GSP – GEI Task Order MKGSA-05.2019

P. Hendrix provided report for the Board's review and consideration. He referred back to the August board meeting, at which the prior task order was approved for $35,000 to organize and catalog the public comments on the draft GSP. He noted that, at that time, it was estimated that as much as another $90,000 may be necessary to incorporate comments into the GSP. With the comment assessment process now finished, Mr. Hendrix stated that the task order before the Board reflects a not-to-exceed cost estimate of $91,300. Following discussion, it was moved by G. Collins, seconded by D. Bixler, and unanimously carried to approve the Task Order as submitted for inclusion with the Consultant agreement.

f. Kaweah Subbasin Coordination

i. Adjacent GSP Reviews

P. Hendrix provided a report for the Board's review and consideration. He

indicated that local GSAs are evaluating the relative differences as between their chosen sustainable management criteria. He further opined on the difficulty in establishing minimum thresholds and measurable objectives as required now with an incomplete understanding of the groundwater basin and evolving conditions. He further discussed the primary SGMA requirement of achieving sustainable yield by 2040 in the context of these thresholds and objectives as they may be revised with adaptive management.

5. COMMUNICATIONS

a. Letter received from the Tulare County Farm Bureau
P. Hendrix advised the Board of the letter received from the Tulare County Farm Bureau regarding draft GSPs covering a portion of the County. Director Nelsen inquired as to the accessibility to all written comments relative to the GSA's draft GSP. Mr. Hendrix indicated that all comments submitted during the public comment period are posted on the GSA website.

6. BOARD/STAFF UPDATES, FUTURE AGENDA ITEMS OR OTHER TOPICS OF INTEREST

a. A. Fukuda mentioned that the Tulare Irrigation District very recently received a $400,000 grant from the federal government for groundwater management planning.

7. ADJOURNMENT Next Regular Meeting – December 10, 2019
Chair Mederos adjourned the meeting at 4:40 p.m.

_____
Groundwater Sustainability Agency
Board Chair

Attest:

_____
Groundwater Sustainability Agency
Board Secretary

Mid-Kaweah GSA

Agenda Item Report

December 18, 2019

Agenda Item Wording: Fiscal – Financial Statements Year To Date

Report Author: Kathi Artis – Tulare ID

Background Discussion:

The GSA's financial policies require a financial overview and Profit & Loss Statement through the end of the previous month are to be provided to the Board of Directors at each Board meeting.

Attachments:

Balance Sheet as of November 30, 2019

Profit & Loss Statement for period July 1, 2019 through November 30, 2019

Transaction Detail by Account for checking and money market accounts for period November 1, 2019 through November 30, 2019

Mid-Kaweah Groundwater Sustainability Agency
Balance Sheet
As of November 30, 2019

	Nov 30, 19
ASSETS	
Current Assets	
Checking/Savings	
Checking	4,223.67
Money Market	4,356.84
Total Checking/Savings	8,580.51
Total Current Assets	8,580.51
TOTAL ASSETS	**8,580.51**
LIABILITIES & EQUITY	
Equity	
Retained Earnings	60,101.58
Net Income	-51,521.07
Total Equity	8,580.51
TOTAL LIABILITIES & EQUITY	**8,580.51**

Mid-Kaweah Groundwater Sustainability Agency
Profit & Loss
July 1, 2019 through October 31, 2019

	July 1, 2019 - November 30, 2019	2019-2020 Budget	Variance
Ordinary Income/Expense			
Income			
Call For Funds			
Administration	0.00	TBD	
GEI Planning	0.00		-
Total Call For Funds	0.00	-	-
Prop 1 GSP Grant	839,231.84	607,600	231,632
Prop 1 GSP Grant Disbursements	-217,418.00		(217,418)
Reimbursed Expenses			
Aqua Geo Frameworks - SkyTEM	0.00		-
Kaweah Sub Basin Expenses	0.00		-
DWR Tech Services Application	0.00		-
Total Reimbursed Expenses	621,813.84	607,600.00	14,213.84
Total Income	621,813.84	607,600	14,214
Expense			
Audit Expense	0.00	3,900	(3,900)
Conference & Meetings	0.00		-
Consulting Fees			
Consulting Fees-GEI	0.00		-
GEI Fees - Grant Applic 01-201	0.00		-
GEI Fees - MKGSA - 02.2017			
GSP	76,178.54	187,400	(111,221)
Sub-Basin Coordination	462,254.82	575,800	(113,545)
Total GEI Fees - MKGSA - 02.2017	538,433.36	763,200	(224,767)
Total Consulting Fees	538,433.36	763,200	(224,767)
Flight Lines	0.00	-	-
Insurance	876.70	2,250	(1,373)
Legal	32,950.00	50,000	(17,050)
Membership Dues	4,140.00		4,140
Office Expense	1,517.00	2,600	(1,083)
Payroll, Benefits and Travel Expenses	94,209.80	246,000	(151,790)
Rent	1,500.00	3,000	(1,500)
Total Expense	673,626.86	1,070,950	(397,323)
Net Ordinary Loss	-51,813.02	(463,350)	411,537
Other Income/Expense			
Other Income			
Interest Income	291.95	200	92
Total Other Income	291.95	200	92
Net Other Income	291.95	200	92
Net Loss	**-51,521.07**	**(463,150)**	**411,629**

Mid-Kaweah Groundwater Sustainability Agency
Transactions by Account
As of November 30, 2019

Type	Date	Num	Name	Description	Account	Receipts	Disbursements
Checking							
Check	11/06/2019	1153	AT&T	Landline	Office Expense		(90.74)
Check	11/06/2019	1154	AT&T Mobility	Cellphone service	Office Expense		(45.22)
Check	11/27/2019	1155	Capital One	Adobe Pro and printer cartridges	Office Expense		(110.50)
Check	11/27/2019	1156	AT&T	Landline	Office Expense		(91.32)
Total Checking						-	(337.78)
Money Market							
Check	11/29/2019			Service Charge	Office Expense		(15.00)
Deposit	11/29/2019			Interest	Interest Income	0.35	
Total Money Market						0.35	(15.00)
					Total	**0.35**	**(352.78)**
					Net Cash		**(352.43)**

Mid-Kaweah GSA

Agenda Item Report

December 10, 2019

Agenda Item 3.b.iii: Near-Term GSA Funding Needs

Report Author: Paul Hendrix

Staff Recommendation:
It is recommended that the Board approve a call for funds in the amount of $250,000.

Background:
As has been reported to the Board at recent meetings, we are awaiting the second and final Prop 1 grant reimbursement in the net amount of $511,000 from the state DWR for GSP and coordination costs. The funds will be used in part to pay a backlog of consultant invoices. Due to a pending grant contract amendment (to align the grant budget with actual expenditures) and DWR's recent focus on Prop 68 grant applications, the reimbursement has not yet been received, thus the need for an infusion of Member funds to pay outstanding bills.

With receipt of both the recommended call for funds and the grant reimbursement, a cash surplus will temporally exist; however, there are upcoming expenses that have not been reflected in this fiscal year's budget. At the November GSA meeting, the Board approved another $91,000 to address comments on the GSP and, by April next year, consultant costs will be incurred to prepare an annual report required by DWR. While the budget did recognize some of these ongoing needs, more cash will be needed within the next several months to fully cover them, and the temporary surplus can be devoted to these needs.

Recommended Motion:
I move to approve a call for funds in the total amount of $250,000 to be collected in equal amounts from each of the Members.

DRAFT

KAWEAH SUBBASIN

GREATER KAWEAH GROUNDWATER SUSTAINABILITY AGENCY
MID-KAWEAH GROUNDWATER SUSTAINBILITY AGENCY
EAST KAWEAH GROUNDWATER SUSTAINABILITY AGENCY

Plan Manager: [name]
[Email address]

Table of Contents

DEFINITIONS

1. "Agency" or "GSA": refers to a groundwater sustainability agency as defined in SGMA.

2. "Agreement": refers to this Coordination Agreement, unless indicated otherwise.

3. "Annual Report": refers to the report required by California Water Code Section 10728.

4. "Basin": means the Kaweah Subbasin within the Tulare Lake Hydrologic Region, San Joaquin Valley Groundwater Basin, defined in DWR's 2016 Bulletin 118 Interim Update as Basin 5-22.11, as same may be amended from time to time.

5. "Basin setting": refers to the information about the physical setting, characteristics, and current conditions of the Basin as described by the Agency in the hydrogeologic conceptual model, the groundwater conditions, and water budget, and Management Areas (if applicable) pursuant to California Code of Regulations, title 23, sections 354.12-354.20.

6. "Confidential Information": as discussed in Section 0 of this Agreement, refers to data, information, modeling, projections, estimates, plans, and other information that are not public and in which the Party has a reasonable expectation of confidentiality, regardless of whether such information is designated as "Confidential Information" at the time of its disclosure. Confidential Information also includes information which is, at the time provided, (a) disclosed as such in writing and marked as confidential (or with other similar designation) at the time of disclosure and/or (b) disclosed in any other manner and identified as confidential at the time of disclosure and is also summarized and designated as confidential in a written memorandum delivered within thirty (30) days of disclosure.

7. "DWR": refers to the California Department of Water Resources.

8. "Groundwater": means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels.

9. "Groundwater flow": refers to the volume and direction of groundwater movement into, out of, or throughout a basin.

10. "Management Team Committee": refers to the governing body originally established in the Parties' MOU that is charged with making recommendations regarding this Agreement and other Kaweah Subbasin related compliance issues to each GSA.

11. "Measurable objectives": refers to specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted GSP to achieve the sustainability goal for the Basin.

"Memorandum of Understanding" or "MOU": refers to the November 1, 2017 Memorandum of Understanding signed by the Parties concerning GSP-related cooperation and coordination in the Kaweah Subbasin.

12. "Minimum Thresholds": refers to a numeric value for each sustainability indicator used to define undesirable results.

14. "Plan" or "GSP": refers to a groundwater sustainability plan as defined by SGMA.

15. "Plan Manager": refers to an employee or authorized representative of the Parties appointed by the Coordination Committee to perform the role of the Plan Manager set forth in Section 0 of this Agreement.

16. "Principal aquifers": refers to aquifers or aquifer systems that store, transmit, and yield significant or economic quantities of groundwater to wells, springs, or surface water systems.

17. "Representative monitoring": refers to a monitoring site within a broader network of sites that typifies one or more conditions within the Basin or an area of the Basin.

18. "Sustainability indicator": refers to any of the effects caused by groundwater conditions occurring throughout the Basin that, when significant and unreasonable, cause undesirable results, as described in Water Code Section 10721(x). Sustainability indicators include 1) chronic lowering of groundwater levels, 2) reduction of groundwater storage, 3) seawater intrusion [not applicable], 4) degraded groundwater quality, 5) land subsidence, and 6) depletions of interconnected surface water.

19. "Water source type": represents the source from which water is derived to meet the applied beneficial uses, including groundwater, recycled water, reused water, and surface water sources identified as Central Valley Project, local supplies, and local imported supplies.

20. "Water use sector": refers to categories of water demand based on the general land uses to which the water is applied, including urban, industrial, agricultural, managed wetlands, managed recharge, and native vegetation.

21. "Water year": refers to the period from October 1 through the following September 30, inclusive, and is labeled by the ending year (e.g. the last day of Water Year 2019 is September 30, 2019).

22. "Water year type": refers to the classification provided by DWR for the San Joaquin Valley, based on unimpaired runoff. The water year type is based on a numerical index and includes five (5) classifications: Wet, Above Normal, Below Normal, Dry, and Critical.

1. INTRODUCTION

1.1.PURPOSE.

The purpose of this Agreement is to comply with SGMA's coordination agreement requirements and ensure that the multiple GSPs within the Basin are developed and implemented utilizing the same methodologies and assumptions as required under SGMA and Title 23 of the California Code of Regulations, and that the elements of the GSPs are appropriately coordinated to support sustainable management.

The Parties intend that this Agreement describe how the multiple GSPs, developed by the individual GSAs, are implemented together to satisfy the requirements of SGMA. The Parties intend this Agreement will be incorporated as part of each individual GSP developed by the Parties.

1.2.ADJUDICATION OR ALTERNATIVE PLANS IN THE BASIN. (§357.4(f).)

As of the date of this Agreement, there are no portions of the Basin that have been adjudicated or have submitted for DWR approval an alternative to a GSP pursuant to Water Code Section 10733.6.

1.3.PLAN MANAGER. (§357.4(b)(1).)

In accordance with the Title 23, California Code of Regulations Section 357.4(b)(1), the Parties hereby agree on a point of contact with DWR. The Plan Manager shall be the General Manager for the Greater Kaweah GSA. The Parties may agree to amend the appointed Plan Manager upon unanimous consent of the GSAs and written notification to DWR. The Plan Manager shall serve as the point of contact for DWR as specified in California Code of Regulations, section 357.4, subd. (b)(1). The Plan Manager's role as the point of contact between the Management Team Committee and DWR. In this role, the Plan Manager shall, at the direction of the Management Team Committee, submit all GSPs, plan amendments, supporting information, monitoring data and other pertinent information, Annual Reports, and periodic evaluations to DWR when required. The Plan Manager may communicate other information to DWR at the request of the Management Team only. The Plan Manager has no authority to take any action or represent the Management Team Committee or a particular GSA without the specific direction and authority of the Management Team Committee or the particular GSA. The Plan Manager is obligated to disclose all communications he/she receives in his/her capacity as Plan Manager to the Management Team Committee, either in open or closed session meetings, or as otherwise appropriate.

2. BASIN SETTING

2.1.INTRODUCTION (§354.12)

The detailed basin setting for the Kaweah Subbasin, as required for GSPs prepared in accordance with Title 23, California Code of Regulations Section 354.12, is provided in Appendix 1 of this Agreement. The attached Basin Setting includes the physical setting, the Hydrogeologic Conceptual Model, groundwater conditions and water budget pursuant to Title 12, CCR Sections 354.12-354.18.

3. EXCHANGE OF DATA AND INFORMATION (§357.4(b)(2))

3.1.EXCHANGE OF INFORMATION.

In accordance with Title 23, California Code of Regulations Section 357.4(b)(2) of the GSP Regulations, the GSA Parties acknowledge and recognize that for this Coordination Agreement to be effective in the enhancement of the goals of basin-wide groundwater sustainability and compliance with the SGMA and the basin level coordinating and reporting regulations, the GSA Parties will have an affirmative obligation to exchange certain minimally necessary information among and between the other GSA Parties. Likewise, the GSA Parties acknowledge and recognize that individual GSA Parties, in providing certain information, and in particular certain raw data, may contend that limitations apply in the sharing and other dissemination of certain types of said information which may subject the individual GSA Party to certain duties regarding non-disclosure and privacy restrictions and protections.

3.2.PROCEDURE GOVERNING THE EXCHANGE OF INFORMATION.

The Parties may exchange information through collaboration and/or informal requests made at the Management Team Committee level. To the extent it is necessary to make a written request for information to another Party, each Party shall designate a representative to respond to information requests and provide the name and contact information of the designee to the Management Team Committee. Requests may be communicated in writing and transmitted in person or by mail, facsimile machine or other electronic means to the appropriate representative as named in this Agreement.

Nothing in this Agreement shall be construed to prohibit any Party from voluntarily exchanging information with any other Party by any other mechanism separate from the Management Team Committee.

3.3.NON-DISCLOSURE OF CONFIDENTIAL INFORMATION.

It is understood and agreed to that, pursuant to Section 0 of this Agreement, a Party to this Agreement may provide one or more of the other Parties with confidential information. To

ensure the protection of such confidential information and in consideration of the agreement to exchange said information, the Parties agree as follows:

3.3.1. The confidential information to be disclosed under this Agreement ("Confidential Information") includes data, information, modeling, projections, estimates, plans, and other information that are not public and in which the Party has a reasonable expectation of confidentiality, regardless of whether such information is designated as "Confidential Information" at the time of its disclosure.

3.3.2. In addition to the above, Confidential Information shall also include, and the Parties shall have a reasonable duty to protect, other confidential and/or sensitive information which is, at the time provided (a) disclosed as such in writing and marked as confidential (or with other similar designation) at the time of disclosure; and/or (b) disclosed in any other manner and identified as confidential at the time of disclosure and is also summarized and designated as confidential in a written memorandum delivered within thirty (30) days of the disclosure.

3.3.3. The Parties shall use the Confidential Information only for the purposes set forth in this Agreement.

3.3.4. The Parties shall limit disclosure of Confidential Information within its own organization to its directors, officers, partners, attorneys, consultants, members and/or employees having a need to know and shall not disclose Confidential Information to any third party (whether an individual, corporation, or other entity) without prior written consent. A Party shall satisfy its obligations under this paragraph if it takes affirmative measures to ensure compliance with these confidentiality obligations by its employees, agents, consultants and others who are permitted access to or use of the Confidential Information.

3.3.5. This Agreement imposes no obligation upon the Parties with respect to any Confidential Information that (a) was possessed before receipt; (b) is or becomes a matter of public knowledge through no fault of the receiving Party; (c) is rightfully received from a third party not owing a duty of confidentiality; (d) is disclosed without a duty of confidentiality to a third party by, or with the authorization of, the disclosing Party; or (e) is independently developed.

3.3.6. If there is a breach or threatened breach of any provision of this section, it is agreed and understood that the non-breaching Party shall have no adequate remedy in money or other damages and accordingly shall be entitled to injunctive relief; provided however, no specification in this Agreement of any particular remedy shall be construed as a waiver or prohibition of any other remedies in the event of a breach or threatened breach of any provision of this Agreement.

3.3.7. If and to the extent the information covered by this provision is requested pursuant to the California Public Records Act (PRA), the Party subject to the PRA shall coordinate with the other Parties regarding its disclosure and obtain approval from a Party prior to disclosing information that the Party has disclosed pursuant to this provision in response to the PRA. To the extent the Party responding to the PRA is sued or otherwise challenged for

withholding confidential information at the request of another Party, the Party requesting the non-disclosure shall indemnify the Party subject to the PRA for any costs and fees related to litigation or other such challenge.

4. METHODOLOGIES & ASSUMPTIONS (§357.4(b)(3))

In accordance with the Title 23, California Code of Regulations Section 357.4(b)(3) and California Water Code section 10727.6 the Parties have entered into this Agreement to ensure that the individual GSPs in the Basin utilize the same data and methodologies for the following assumptions: 1) groundwater elevation data, 2) groundwater extraction data; 3) surface water supply; 4) total water use; 5) change in groundwater storage; 6) water budget; and 7) sustainable yield, and that such methodologies and assumptions will continue to be used in the future development and implementation of such GSPs.

The methodologies and assumptions were developed based on existing data/information, best management practices, and/or best modeled or projected data available.

Information regarding the agreed upon methodologies and assumptions, is attached as Appendix 1 to this Agreement.

5. MONITORING NETWORK (§§354.32-354.40)

5.1.The Parties developed a monitoring network and monitoring network objectives for the Basin in accordance with California Code of Regulations, Title 23, sections 354.32 – 354.40. Each network facilitates the collection of data in order to characterize groundwater and related surface water conditions in the Basin and evaluate changing conditions that occur from implementation of the individual GSPs. The individual GSPs include monitoring objectives, protocols, and data reporting requirements as necessary under SGMA and SGMA Regulations.

5.2.The monitoring network(s) demonstrate short-term, seasonal, and long-term trends in groundwater and related surface water conditions. Each Party's GSP will include the monitoring network objectives for the Basin, including an explanation of how the network develops and implements to monitor groundwater and related surface water conditions, and the interconnection of surface water and groundwater, with sufficient temporal frequency and spatial density to evaluate the effectiveness of GSP implementation. The monitoring network(s) accomplish the following: a) demonstrate progress toward achieving measurable objectives described in the GSPs; b) monitor impacts to the beneficial uses or users of groundwater; c) monitor changes in groundwater conditions relative to applicable measurable objectives and minimum thresholds; and d) assist with quantifying annual changes in water budget components.

5.3.The Parties hereby agree, consistent with Section 0 of this Agreement, to share information necessary to create a Basin map displaying the location and type of each monitoring site within the Basin, and a report in tabular format, including information regarding the monitoring site type, frequency of measurement, and purpose for which the monitoring site is being used.

5.4.Information regarding the agreed upon monitoring networks, which is subject to future review and modification, is attached as Appendix 2 to this Agreement.

6. COORDINATED WATER BUDGET (§357.4(b)(3)(B))

6.1.In accordance with the California Code of Regulations, Title 23, section 357.4 (b)(3)(B), the Parties have prepared a coordinated water budget for the Basin as described herein and required by California Code of Regulations, Title 23, section 354.18. The water budget provides an accounting and assessment of the total volume of groundwater and surface water entering and leaving the Basin, including historical, current, and projected water budget conditions, and the change in the volume of water stored. Said water budget is included as part of Appendix 1 to this Agreement.

6.2.All aspects of the coordinated water budget as described herein are addressed in the Basin Setting. In addition, the current water budget for the period 1997-2017 has been apportioned under a water accounting framework among each of the Parties as set forth in Appendix 3 to this Agreement. This preliminary water budget is the Parties' best attempt from the best available data. Further discussions among the Parties must occur after adoption of GSPs concerning mutual responsibilities in achieving the Subbasin's Sustainable Yield by 2040, or as may be otherwise extended by DWR per Water Code §10727.2 (b) (3) once further data is obtained. The Parties acknowledge that significant data gaps exist within the existing Basin Setting as further described in Section 8 below. The Parties explicitly acknowledge to use good faith efforts to obtain data necessary and to reevaluate the water budget as needed. "Good faith efforts" will be defined as scientifically approved methods of data collection of such data relative to the development or understanding of groundwater extractions, groundwater inflow, and groundwater storage/levels.

6.3.With improved data collection and basin understanding, the apportionment of ground water supply and assignment of groundwater overdraft responsibility will be modified to reflect the updated understanding. The Subbasin GSAs will meet at least annually to review Subbasin data relative to groundwater assignments and inflow as well as basin conditions. Changes to the groundwater inflow and overdraft assignments will occur no less than every **five** years.

7. SUSTAINABLE YIELD AND UNDESRIABLE RESULTS (§357.4(b)(3)(C)

In accordance with Title 23, California Code of Regulations Section 357.4(b)(3)(C), the Parties hereby agree to a sustainable yield for the basin, which is supported by a description of the undesirable results for the basin, and an explanation of how the minimum thresholds and measurable objectives defined by each Plan relate to those undesirable results, based on

information described in the basin setting as described in Appendix 1 attached hereto and incorporated by reference. The sustainable yield is further defined in Appendix 3.

8. COORDINATED DATA MANAGEMENT SYSTEM (§357.4(e))

In accordance with the Title 23, California Code of Regulations Section 357.4(e), the Parties hereby describe a coordinated data management system for the Basin. As required by SGMA and accompanying Regulations, the Parties will coordinate to maintain a data management system that is capable of storing and reporting information relevant to the development and/or implementation of the GSPs and monitoring network of the Basin.

Information regarding the agreed upon coordinated data management system, which is subject to future review and modification, shall be attached as Appendix 4 to this Agreement.

9. Identification of Data Gaps (§354.38)

The Parties will periodically evaluate the monitoring network in Appendix 2 to determine if there are data gaps that could affect the ability of the Subbasin to meet the Sustainability Goal. Current data gaps are identified in Appendix 5. At minimum, every five years, the Parties will provide an evaluation of data gaps in the five-year assessment, including steps to be taken to address data gaps before the next five-year assessment. The Parties agree to use good faith efforts to obtain data needed to fill all data gaps and to reevaluate both this Coordination Agreement and the GSPs as necessary once data gaps have been filled.

10. ADOPTION AND USE OF THE COORDINATION AGREEMENT

10.1. COOPERATIVE IMPLEMENTATION OF GSPS. (§357.4(C))

In accordance with the Title 23, California Code of Regulations Section 357.4(c), the Parties hereby explain how the Plans implemented together, satisfy the requirements of the Act and are in substantial compliance with SGMA and SGMA regulations. Each Party will ensure their GSP complies with the statutory requirements of SGMA. The Parties to this Agreement intend that their individual GSPs will be implemented together in order to satisfy the requirements of SGMA. In a coordinated manner, the collective GSPs have satisfied the requirements of sections 10727.2 and 10727.4 of the California Water Code by providing a description of the physical setting and characteristics of the separate aquifer systems within the Basin, the methodologies and assumptions specified in Water Code section 10727.6, both as referenced in Section 2.1 herein. They have further developed a common sustainability goal and description of the Subbasin's undesirable results, both as set forth in Appendix 6. The Parties'

minimum thresholds, measurable objectives, and monitoring protocols together provide a description of how the Subbasin will be sustainably managed during the GSP implementation phase. Furthermore, the Parties have developed a coordinated water budget and monitoring network, in addition to their individual GSPs, which, when implemented together, suffice to provide the mandated data and fulfill the requirements set out in SGMA and its accompanying regulations.

The Parties have developed and calibrated a Subbasin numerical groundwater and surface water model that has been applied to simulate the operation of their combined projects and management actions and thereby demonstrate how their GSPs conform to measurable objectives and achieve sustainable yield by 2040. A description of the relevant model simulations and results are as described in Appendix 7 to this Agreement.

In that appendix, in the section "Summary Results for Kaweah Subbasin," Table 5 therein shows the results of the several numerical model scenarios chosen to simulate groundwater conditions from the present to 2040. For Case 5 – the scenario depicting the preliminary suite of GSA projects and management actions – the annual reduction in groundwater storage is reduced by about 80% down to 15 taf/year from the projected conditions' storage reduction of 72 taf/year. The Parties understand that this initial selection of projects and management actions, which collectively add 121 taf/year to the Subbasin water budget by 2040 and beyond, do not fully erase the storage reductions by 2040 due to boundary flux impacts and other hydrogeologic factors.

Through the five-year GSP assessment process and continued dialogue with neighboring subbasins as to their role in influencing the changes in storage within the Kaweah Subbasin, residual storage reductions remaining from the modeling scenarios analyzed thus far will be addressed with implementation of additional projects and/or accelerated implementation of management actions designed to reduce groundwater extractions.

10.2. GSP AND COORDINATION AGREEMENT SUBMISSION (§357.4(D).)

In accordance with the Title 23, California Code of Regulations Section 357.4(d), the Parties hereby agree to the following process for submitting all Plans, Plan amendments, supporting information, all monitoring data and other pertinent information, along with annual reports and periodic evaluations. The Parties agree to submit their respective GSPs to DWR through the Management Team Committee and Plan Manager in accordance with SGMA and its accompanying regulations. The Plan Manager will be responsible for submittal of GSPs to DWR in accordance with California Water Code section 10733.4, subdivision (b)(1)-(c). However, prior to this submittal, the Management Team Committee shall vote to approve submittal. The approval shall consist of the review of the multiple GSPs in the Subbasin by the Management Team Committee for coordination and consistency. If the Management Team Committee identifies incomplete coordination or inconsistencies that amount to a concern regarding compliance with sections of SGMA, the Management Team Committee will work with the Parties to resolve these issues prior to submittal. Parties intend that this Agreement suffice to fulfill the requirements of providing an explanation of how the GSPs implemented together satisfy Water Code sections 10727.2, 10727.4 and 10727.6 for the entire Basin.

11. KAWEAH SUBBASIN ORGANIZATIONAL STRUCTURE AND OTHER MISCELLANEOUS PROVISIONS

11.1. GOVERNANCE. (§357.4(b)(2))

In accordance with the Title 23, California Code of Regulations Section 357.4(b)(2), the Parties hereby agree on the following responsibilities for meeting the terms of the agreement and the procedures for resolving conflicts.

11.1.1. Management Team Committee.

The Parties intend for the Management Team Committee as previously established in the Parties' MOU agreed upon until the effective date of this Coordination Agreement. The Management Team Committee will consist of three (3) representatives appointed by each Party to this Agreement.

- Compensation. Each Management Team Committee member's compensation for service on the Management Team Committee, if any, is the responsibility of the appointing Party.

- Term. Each Management Team Committee member shall serve at the pleasure of the appointing Party and may be removed from the Management Team Committee by the appointing Party at any time.

- Meetings. The Management Team Committee will meet at least monthly, or more frequently as needed, to carry out the activities described in this Agreement. The Management Team Committee will prepare and maintain minutes of its meetings.

11.1.2. Quorum for Management Team Committee Meetings.

In order to take action at a meeting of the Management Team Committee, a majority of the Management Team Committee members must be present at the meeting, with at least one representative from each Party.

11.1.3. Compliance with Open Meetings Laws.

The Management Team Committee shall meet on a regular basis for the purposes described in this Agreement. The Management Team Committee shall comply with the Ralph M. Brown Act (Government Code section 54950 et seq.) as applicable and shall post agendas as required.

11.1.4. Management Team Committee Officers.

The Management Team Committee may, from time to time, select from amongst its members a Chairman, who shall act as presiding officer, a Vice Chairman, to serve in the absence of the Chairman, and any other officers as determined by the Management Team Committee. There also shall be selected a Secretary, who may, but not need be, a member of the Management Team Committee. All officers shall remain in office for two years, unless removed pursuant to a majority vote of the Management Team Committee.

11.1.5. Management Team Committee Meeting Voting Provisions.

Each GSA will be entitled to one (1) vote on the Management Team Committee. The process for declaring such vote must be determined by each respective GSA. Recommendations from the Management Team Committee shall be made to the Parties' respective GSAs only upon the unanimous vote of the Management Team Committee. Should unanimity not be reached, the votes shall be reported to each GSA's Board of Directors for further direction.

11.1.6. Adoption of Management Team Committee Recommendations.

Recommendations approved by unanimous consent of the Management Team Committee shall be reported to each GSA Board, with the process and manner for GSA approval left to the discretion of each GSA. If a GSA fails to approve a recommendation of the Management Team Committee, the Management Team Committee shall reconvene and endeavor to develop an alternative recommendation that may resolve any issues which resulted in the failure to approve. If the Management Team Committee is unable to develop an alternative recommendation, or if a GSA fails to approve the Management Committee's alternative recommendation, the Parties shall evaluate whether to enter into the dispute resolution process outlined in Section 0 of this Agreement.

11.1.7. Failure of Management Team Committee to Reach Consensus.

The Parties acknowledge that at all times consensus may not be reached amongst the Management Team Committee. All matters in which consensus of the Management Team Committee cannot be reached shall be reported to the GSA Boards of Directors. The Management Team Committee shall reconvene after the unresolved issue has been reported to the GSA Boards of Directors. If the Management Team Committee is still unable to reach consensus, the Parties shall evaluate whether to enter into the dispute resolution process outlined in Section 0 of this Agreement.

11.2. RESPONSIBILITIES OF THE PARTIES.

The Parties to this Agreement agree to work collaboratively to comply with SGMA and this Agreement. Each Party to this Agreement is a GSA and acknowledges it is bound by the terms of the Agreement. This Agreement does not otherwise affect each Party's responsibility to implement the terms of their respective GSP. Rather, this Agreement is the mechanism through

which the Parties will coordinate portions of the multiple GSPs to ensure such GSP coordination complies with SGMA.

11.3. DISPUTE RESOLUTION.

Any GSA may choose to initiate the following dispute resolution process by serving written notice to the remaining GSAs of the following: (1) identification of the conflict; (2) description of how the conflict may negatively impact the sustainability of the Kaweah Subbasin; and (3) a proposal for one or more resolutions. The Parties agree to designate representatives to meet and confer with each other within thirty (30) days of the date such notice is given and said representatives shall then meet within a reasonable time to address all issues identified in the notice. Should the representatives be unable to reach a resolution within ninety (90) days of the written notice, the Parties shall enter informal mediation in front of a mutually agreeable mediator.

11.4. MODIFICATION.

The Parties hereby agree that this Agreement shall be reviewed as part of each five-year assessment and may be supplemented, amended, or modified only by the mutual agreement of all the Parties. No supplement, amendment, or modification of this Agreement shall be binding unless it is in writing and signed by all Parties.

11.5. WITHDRAWAL, TERMINATION, ADDING PARTIES.

11.5.1. A Party may unilaterally withdraw from this Agreement without causing or requiring termination of this Agreement, effective upon thirty (30) days' notice to the Management Team Committee. Any Party who withdraws shall remain obligated to pay its share of all debts, liabilities, and obligations the Party incurred, accrued, or approved pursuant to this Agreement prior to the effective date of such withdrawal.

11.5.2. A new Party may be added to this Agreement if such entity is an exclusive GSA that has developed and will implement its own separate and complete GSP.

11.5.3. This Agreement may be rescinded by unanimous written consent of all the Parties. Nothing in this Agreement shall prevent the Parties from entering into another coordination agreement.

11.6. MISCELLANEOUS.

11.6.1. Severability.

If any provision of this Agreement is for any reason held to be invalid, unenforceable, or contrary to any public policy, law, statute and/or ordinance, then the remainder of this Agreement shall not be affected thereby and shall remain valid and fully enforceable.

11.6.2. Third Party Beneficiaries.

This Agreement shall not create any right of interest in any non-Party or in any member of the public as a third-party beneficiary.

11.6.3. Construction and Interpretation.

This Agreement was finalized through negotiations of the Parties. Each Party has had a full and fair opportunity to review and revise the terms herein. As a result, the normal rules of construction that any ambiguities are to be interpreted against the drafting Party shall not apply in the construction or interpretation of this Agreement.

11.6.4. Good Faith.

Each Party shall use its best efforts and work in good faith for the expeditious completion of the purposes and goals of this Agreement and the satisfactory performance of its terms.

11.6.5. Execution.

This Agreement may be executed in counterparts and the signed counterparts shall constitute a single instrument. The signatories to this Agreement represent that they have the authority to sign this Agreement and to bind the Party for whom they are signing.

11.6.6. Notices.

All notices, requests, demands or other communications required or permitted under this Agreement shall be in writing unless provided otherwise in this Agreement, and shall be deemed to have been duly given and received on: (i) the date of service if personally served or served by electronic mail or facsimile transmission on the Party to whom notice is to be given at the address(es) below; (ii) on the first day after mailing, if mailed by Federal Express, U.S. Express Mail, or other similar overnight courier service; or (iii) on the third day after mailing if mailed to the Party to whom notice is to be given by first class mail, registered certified to the official addresses for each Party according to DWR.

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the date executed below:

[Signature Blocks]

Appendix 1 – Basin Setting (completed)

Appendix 2 – Monitoring Network (tech. memo, in progress)

Appendix 3 – Water Accounting Framework (included)

Appendix 4 – Data Mgt. System (tech. memo, completed)

Appendix 5 – Data Gaps (tech. memo, in progress)

Appendix 6 – Sustainability Goal/Undesirable Results (included)

Appendix 7 – Computer Simulation Model (tech. memo, completed)

Appendix 6

6.1 Sustainability Goal

The broadly stated Sustainability Goal for the Kaweah Subbasin is for each GSA to manage groundwater resources to preserve the viability of existing agricultural enterprises of the region and the smaller communities that provide much of their job base in the Sub-basin, including the school districts serving these communities. The Goal will also strive to fulfill the water needs of existing and amended county and city general plans that commit to continued economic and population growth within Tulare County.

This goal statement is deemed sufficient to satisfy §354.24 of the Regulations.

These Goals will be achieved by:

- The implementation of the EKGSA, GKGSA and MKGSA GSPs, each designed to identify phased implementation of measures (projects and management actions) targeted to ensure that the Kaweah Subbasin is managed to avoid undesirable results by 2040 or as may be otherwise extended by DWR.
- Collaboration with other agencies and entities to arrest chronic water-level and groundwater storage declines, reduce or minimize land subsidence where significant and unreasonable, decelerate ongoing water quality degradation where feasible, and sustain interconnected surface-waters where beneficial uses may be impacted.
- Application of the Kaweah Subbasin Hydrologic Model (KSHM) – incorporating the initial selection of projects and management actions by the Subbasin GSAs – and its simulation output is summarized in the Subbasin Coordination Agreement to help explain how the sustainability goal is to be achieved within 20 years of GSP implementation.
- Assessments at each interim milestone of those projects and management actions that were implemented and their achievements towards avoiding undesirable results as defined herein.
- Continuance of projects and management action implementation by the three GSAs as appropriate through the planning and implementation horizon to maintain this sustainability goal.

    - This sustainability goal as stated in this section is included by reference in the Kaweah Subbasin Coordination Agreement.

6.2 Undesirable Results

The undesirable results are derived from the Basin Setting and its characterization as described in the Hydrogeologic Conceptual Model, the historical, current and projected groundwater conditions and trends, and stakeholder input. The three Subbasin GSAs have concurred with the undesirable results, their causes, determination criteria and effects, all as defined in this section. The several sustainability indicators used to determine undesirable results are referenced herein.

6.2.1 Causes leading to Undesirable results

Causes are delineated herein for groundwater-level declines and likewise for reduction in storage (by proxy), land subsidence, water quality degradation, and interconnected surface waters.

6.2.1.1 Groundwater Levels

Causes include over-pumping or nominal groundwater recharge operations during drought periods such that groundwater levels fall and remain below minimum thresholds. Over-pumping and lack of recharge is area specific, and some GSA Management Areas experience greater adverse impacts than others.

6.2.1.2 Groundwater Storage

The water-level sustainability indicator applies, by proxy, for changes in groundwater storage. Given assumed hydrogeologic parameters of the Subbasin, direct correlations exist between changes in water levels and estimated changes in groundwater storage.

6.2.1.3 Land Subsidence

Causes include over-pumping or nominal groundwater recharge operations during drought periods such that groundwater levels fall and remain below minimum thresholds. Over-pumping and lack of recharge is area specific, and some GSA Management Areas experience greater adverse impacts than others. Over-pumping during drought periods, which may result in new lows in terms of groundwater elevations, is of particular concern based on current scientific understanding of subsidence trends in this region.

6.2.1.4 Degraded Water Quality

Pumping localities and rates, as well as other induced effects by implementation of a GSP, such that known migration plumes and contaminant concentrations are threatening production well viability are causes of Undesirable results. Well production depths too may draw out contaminated groundwater, both from naturally occurring and man-made constituents which, if MCLs are exceeded, may engender Undesirable results. Declining water levels may or may not be a cause, depending on location. In areas where shallow groundwater can threaten the health of certain agricultural crops, rising water levels may be of concern as well.

6.2.1.5 Interconnected Surface Waters

Depletions of interconnected surface waters are minimal and, to the extent they occur, impact only vegetation along the banks of unlined channels within the forebay regions of the aquifer system where natural channels exhibit gaining reaches from time to time. Undesirable results may occur should any such groundwater-dependent vegetation disappear from locations of known historic existence.

6.2.1.6 Seawater Intrusion

The Kaweah Subbasin GSAs have concluded that sustainability indicators for seawater intrusion are essentially non-existent.

6.2.2 Criteria to Define Undesirable results

Minimum thresholds which, when exceeded in sufficient number as to constitute an undesirable result, are fully described in Section 5 of this Plan and constitute the primary criteria to gauge the occurrence of undesirable results. The application of these criteria are specifically defined herein for water level declines and likewise for land subsidence and interconnected surface waters (by proxy), and also for degraded water quality.

6.2.2.1 Groundwater Levels

With respect to water-level declines, undesirable results occur when 30% of the representative monitoring sites in all three GSA jurisdictions combined exceed their respective minimum threshold water level elevations. Should this occur, a determination shall be made of the then-current GSA water budgets and resulting indications of net reduction in storage. Similar determinations shall be made of adjacent GSA water budgets in neighboring subbasins to ascertain the causes for the occurrence of the Undesirable result. Additionally, when minimum thresholds in 50% of the representative monitoring sites in one Management Area within a single GSA are exceeded, an undesirable result occurs.

Groundwater elevations shall serve as the Sustainability indicator and metric for chronic lowering of groundwater levels and, by proxy, for reductions in groundwater storage, differential land subsidence and interconnected surface waters. Justification for use of groundwater elevations as a proxy is provided in Section 5.

It is the preliminary determination that the percentages identified herein represent a sufficient number of monitoring sites in the Subbasin such that their exceedance would represent an Undesirable result for water-level declines, reduction in groundwater storage, land subsidence, and interconnected surface waters where applicable. Based on observed groundwater conditions in the future, no less frequently than at each five-year assessment, the GSAs will evaluate whether these percentages need to be changed.

6.2.2.2 Groundwater Storage

The water-level sustainability indicator applies, by proxy, for changes in groundwater storage as well. Given assumed hydrogeologic parameters of the Subbasin, direct correlations exist between changes

in water levels and estimated changes in groundwater storage, and water levels are to serve as the metric for groundwater storage reductions as well.

6.2.2.3 Land Subsidence

The primary criteria and metric will be the annual rate of reduction in land surface elevation and areal extent of such elevation changes. The water-level sustainability indicator will be considered, by proxy, for differential land subsidence, although the current body of knowledge relative to subsidence and local and regional declines in water levels is limited.

6.2.2.4 Degraded Water Quality

Groundwater quality degradation will be evaluated relative to established MCLs or other constituents of concern by applicable regulatory agencies. The metrics for degraded water quality shall be measured by MCL compliance or by other constituent content measurements where appropriate. These metrics will include measurements for the following constituents where applicable:

- XXX
- YYY {GEI to provide input on constituent listing}
- ...

The percentages described in Section 3.2.2.1 for any of the aforementioned constituents at the designated monitoring sites are applicable as metrics for degraded water quality.

6.2.2.5 Interconnected Surface Waters

The water-level sustainability indicator is to serve, by proxy, for establishing interconnected surface waters. Periodic comparisons of surface water elevations in applicable stream channels and adjacent groundwater will be pertinent to this establishment.

6.2.2.6 Seawater Intrusion

The Kaweah Subbasin GSAs have concluded that sustainability indicators for seawater intrusion are essentially non-existent, and thus no criteria need be established.

6.2.3 Potential Effects on Beneficial Uses and Users

Potential effects are generally described for declines in water levels and similarly for reductions in groundwater storage, land subsidence, degraded water quality and for interconnected surface waters.

6.2.3.1 Groundwater Levels

The potential effects of lowered groundwater levels, when approaching or exceeding minimum thresholds and thus becoming an Undesirable result, are reduced irrigation water supplies for agriculture and for municipal systems through loss of well capacity, loss or degradation of water supplies for smaller community water systems and domestic wells due to well failures, increased energy consumption due to lowered water levels, and the adverse economic consequences of the

aforementioned effects such as increased energy usage to extract groundwater from deeper levels. The same effects occur with reductions in groundwater storage due to the proxy relationship with water levels.

6.2.3.2 Groundwater Storage

The potential effects to beneficial uses and users of reductions in groundwater storage are essentially the same as for declines in water levels. In most cases the direct correlation is with declines in levels; however, some beneficial uses may be tied more specifically to loss of groundwater in storage.

6.2.3.3 Land Subsidence

Differential land subsidence may impact surface infrastructure such as building foundations, paved streets/highways, and water conveyance systems. While not considered alarming within the Kaweah Subbasin, subsidence along the Friant-Kern Canal elsewhere has been an ongoing concern impacting beneficial users of that water supply source. Groundwater deep wells may be adversely impacted due to casing and column failures. Loss of groundwater storage space in the aquifer system can occur with compaction of clay layers within; however, the volume of dewatered and available space existing within the aquifer system is considered extensive and adequate for future recharge during GSP implementation.

6.2.3.4 Degraded Water Quality

The potential effects of degraded water quality from migrating plumes or other induced effects of GSA actions include those upon municipal, small community and domestic well sites rendered unfit for potable supplies and associated uses, and/or the costs to treat groundwater supplies at the well head or point of use so that they are compliant with state and federal regulations. Potential effects also include those upon irrigated agricultural industries, as certain mineral constituents and salt build-up can impact field productivity and crop yields.

6.2.3.5 Interconnected Surface Waters

Water bodies, primarily stream channels, which become temporally disconnected throughout the year from the underlying water table may experience the disappearance of adjacent vegetative habitat considered as a beneficial use of groundwater. Such occurrences are generally restricted to the upper reaches of applicable channels in the forebay region of the aquifer system near the Sierra foothills.

6.2.3.6 Seawater Intrusion

Given the conclusion that seawater intrusion will not be an undesirable result for the Subbasin and no sustainability indicator need be applied, there are no effects upon beneficial uses or users due to seawater intrusion.

The undesirable results as described in this section are included by reference in the Kaweah Subbasin Coordination Agreement.

Kaweah Subbasin Coordination Agreement
Appendix 3 – Water Accounting Framework
[DRAFT]

The Subbasin GSAs have discussed water budgets in the context of groundwater law and have developed a means to account for various components of the water budget consistent with commonly-accepted rules regarding surface and groundwater rights. These discussions also included recognition of water storage and conveyance infrastructure within the Subbasin as owned/operated by various water management entities within each GSA.

These discussions culminated in an agreed-to methodology to assign groundwater inflow components to each GSA consistent with categories that recognize a native, foreign and salvaged portion of all such components. In general, this methodology defines the native portion of groundwater inflows to consist of those inflows which all well owners have access to on a pro-rata basis; the foreign portion to consist of all imported water entering the Subbasin from non-local sources under contract by local agencies or by purchase/exchange arrangements; and the salvaged portion to consist of all local surface and groundwater supplies stored, treated and otherwise managed by an appropriator/owner of the supply and associated water infrastructure systems (e.g. storm water disposal systems and waste water treatment plants).

The methodology and apportionment of groundwater inflow components is as shown in Table 3.1:

Table 3.1

Components of Groundwater Inflow(*)

Native

- Percolation from rainfall
- Streambed percolation (natural channels) from Kaweah River watershed sources
- Agricultural land irrigation returns from pumped groundwater
- Mountain front recharge

Foreign

- Streambed percolation from imported sources
- Basin recharge from imported sources
- Ditch percolation from imported sources
- Agricultural land irrigation returns from imported sources

Salvaged

- Ditch percolation from previously appropriated Kaweah River sources
- Additional ditch/field recharge from over-irrigation
- Captured storm water returns
- Waste water treatment plant returns
- Basin percolation from previously stored Kaweah River sources
- Agricultural land irrigation returns from Kaweah River watershed sources

(*) Except for mountain front recharge, sub-surface inflows in and out of the Subbasin are excluded from this apportionment and no ownership claims are asserted nor disavowed per this apportionment.

Applying the categorical apportionment in Table 6.1 to each GSA and their member entities that hold appropriative and contract water rights and/or salvaged water infrastructure systems results in the following apportionment to each GSA, shown in Table 3.2:

Table 3.2
(values in acre-feet)

	Native Water			
	East	**Greater**	**Mid**	**Total**
Perc of Precip (Ag and 'Native' non-Ag land)	23,666	44,213	20,974	**88,854**
Streambed Perc from Kaweah River Sources	16,767	31,324	14,860	**62,952**
Irrigation Ret. Flow from Pumped GW	41,484	77,501	36,766	**155,752**
Mountain Front Recharge	14,976	27,978	13,273	**56,227**
Total Native	**96,894**	**181,017**	**85,874**	**363,784**
GSA % of Total Native	**27%**	**50%**	**24%**	

	Foreign Water			
	East	**Greater**	**Mid**	**Total**
Streambed Perc from Imported Sources	0	11,730	2,523	**14,253**
Ditch Perc from Imported Sources	0	1,204	21,745	**22,949**
Basin Perc from Imported Sources	0	1,050	14,305	**15,355**
Irrigation Ret. Flow from Imported Sources	12,073	1,241	7,140	**20,453**
Total Foreign	**12,073**	**15,225**	**45,713**	**73,010**
GSA % of Total Foreign	**17%**	**21%**	**63%**	

	Salvaged Water			
	East	**Greater**	**Mid**	**Total**
Ditch Perc from Kaw River Sources	8,835	49,771	34,880	**93,486**
Additional Recharge	226	6,892	5,697	**12,815**
Stormwater Return Flows	508	2,370	8,491	**11,368**
WWTP Return Flows	1,470	3,129	13,878	**18,477**
Basin Perc from Kaweah River Sources	0	16,005	23,479	**39,484**
Irrig. Ret. Flow from Kaweah River Sources	4,555	31,039	11,981	**47,574**
Total Salvaged	**15,593**	**109,205**	**98,406**	**223,205**
GSA % of Total Salvaged	**7%**	**49%**	**44%**	

	East	**Greater**	**Mid**	**Total(*)**
Grand Total	**124,560**	**305,447**	**229,992**	**659,999**
GSA % of Total	**19%**	**46%**	**35%**	

(*) Excludes net sub-surface inflow of 60 taf/yr

Note: All data is derived from the Basin Setting and is based on water budget for the period Water Year 1997 to 2017 for the Kaweah Subbasin.

As noted in Table 3.2, net sub-surface inflow is omitted from this apportionment. Sub-surface inflows and outflows are discussed and quantified in the Basin Setting report (Appendix 1) and are embodied in scenarios of future groundwater conditions as simulated by application of the Subbasin computer model. As discussed in that report, the Subbasin's safe yield is estimated to be about 720,000 AF, which amount includes net sub-surface inflow. As defined in SGMA however, the Subbasin's sustainable yield may additionally be impacted when considering

undesirable results other than reductions in groundwater storage. The Parties therefore have preliminarily determined that the sustainable yield may be something less and have agreed that the total groundwater inflow of 660,000 AF identified in Table 3.2 will constitute the sustainable yield, which amount does not take into consideration net sub-surface inflow from adjacent subbasins. The estimated sustainable yield will continue to be revised pursuant to the monitoring of sustainability indicators and avoidance of undesirable results.

At this stage, inter-basin discussions concerning water budgets and associated credits for such sub-surface flows are not to the point of delineating Subbasin assignments thereof. The apportionment as described serves primarily to shape future discussions among the Kaweah Subbasin GSAs concerning mutual responsibilities in achieving sustainability by 2040.

As additional data becomes available and water budget components are refined, the Subbasin water budget and estimates of sustainable yield will be periodically reevaluated, no less frequent than the five-year GSP assessments as submitted to DWR. Likewise, the individual GSA water balances will also be reviewed as this reevaluation occurs at the Subbasin level.

Appendix 6

[DRAFT]

6.1 Sustainability Goal

The broadly stated sustainability goal for the Kaweah Subbasin is for each GSA to manage groundwater resources to preserve the viability of existing agricultural enterprises of the region and the smaller communities that provide much of their job base in the Sub-basin, including the school districts serving these communities. The goal will also strive to fulfill the water needs of existing and amended county and city general plans that commit to continued economic and population growth within Tulare County.

This goal statement is deemed sufficient to satisfy §354.24 of the Regulations.

These Goals will be achieved by:

- The implementation of the EKGSA, GKGSA and MKGSA GSPs, each designed to identify phased implementation of measures (projects and management actions) targeted to ensure that the Kaweah Subbasin is managed to avoid undesirable results by 2040 or as may be otherwise extended by DWR.
- Collaboration with other agencies and entities to arrest chronic water-level and groundwater storage declines, reduce or minimize land subsidence where significant and unreasonable, decelerate ongoing water quality degradation where feasible, and sustain interconnected surface-waters where beneficial uses may be impacted.
- Application of the Kaweah Subbasin Hydrologic Model (KSHM) – incorporating the initial selection of projects and management actions by the Subbasin GSAs – and its simulation output is summarized in the Subbasin Coordination Agreement to help explain how the sustainability goal is to be achieved within 20 years of GSP implementation.
- Assessments at each interim milestone of those projects and management actions that were implemented and their achievements towards avoiding undesirable results as defined herein.

- Continuance of projects and management action implementation by the three GSAs as appropriate through the planning and implementation horizon to maintain this sustainability goal.

6.2 Undesirable Results

The undesirable results are derived from the Basin Setting and its characterization as described in the Hydrogeologic Conceptual Model, the historical, current and projected groundwater conditions and trends, and stakeholder input. The three Subbasin GSAs have concurred with the undesirable results, their causes, determination criteria and effects, all as defined in this section. The several sustainability indicators used to determine undesirable results are referenced herein.

6.2.1 Causes leading to Undesirable Results

Causes are delineated herein for groundwater-level declines and likewise for reduction in storage (by proxy), land subsidence, water quality degradation, and interconnected surface waters.

6.2.1.1 Groundwater Levels

Causes include over-pumping or nominal groundwater recharge operations during drought periods such that groundwater levels fall and remain below minimum thresholds. Over-pumping and lack of recharge is area specific, and some GSA Management Areas experience greater adverse impacts than others.

6.2.1.2 Groundwater Storage

The water-level sustainability indicator applies, by proxy, for changes in groundwater storage. Given assumed hydrogeologic parameters of the Subbasin, direct correlations exist between changes in water levels and estimated changes in groundwater storage.

6.2.1.3 Land Subsidence

Causes include over-pumping or nominal groundwater recharge operations during drought periods such that groundwater levels fall and remain below minimum thresholds. Over-pumping and lack of recharge is area specific, and some GSA Management Areas experience greater adverse impacts than others. Over-pumping during drought periods, which may result in new lows in terms of groundwater elevations, is of particular concern based on current scientific understanding of subsidence trends in this region.

6.2.1.4 Degraded Water Quality

Pumping localities and rates, as well as other induced effects by implementation of a GSP, such that known migration plumes and contaminant concentrations are threatening production well viability are causes of undesirable results. Well production depths too may draw out contaminated groundwater, both from naturally occurring and man-made constituents which, if MCLs are exceeded, may engender undesirable results. Declining water levels may or may not be a cause, depending on location. In areas where shallow groundwater can threaten the health of certain agricultural crops, rising water levels may be of concern as well.

6.2.1.5 Interconnected Surface Waters

Depletions of interconnected surface waters are minimal and, to the extent they occur, impact only vegetation along the banks of unlined channels within the forebay regions of the aquifer system where natural channels exhibit gaining reaches from time to time. undesirable results may occur should any such groundwater-dependent vegetation disappear from locations of known historic existence.

6.2.1.6 Seawater Intrusion

The Kaweah Subbasin GSAs have concluded that sustainability indicators for seawater intrusion are essentially non-existent.

6.2.2 Criteria to Define Undesirable Results

Minimum thresholds which, when exceeded in sufficient number as to constitute an undesirable result, are fully described in Section 5 of this Plan and constitute the primary criteria to gauge the occurrence of undesirable results. The application of these criteria are specifically defined herein for water level declines and likewise for land subsidence and interconnected surface waters (by proxy), and also for degraded water quality.

6.2.2.1 Groundwater Levels

With respect to water-level declines, undesirable results occur when one-third of the representative monitoring sites in all three GSA jurisdictions combined exceed their respective minimum threshold water level elevations. Should this occur, a determination shall be made of the then-current GSA water budgets and resulting indications of net reduction in storage. Similar determinations shall be made of adjacent GSA water budgets in neighboring subbasins to ascertain the causes for the occurrence of the undesirable result.

Groundwater elevations shall serve as the sustainability indicator and metric for chronic lowering of groundwater levels and, by proxy, for reductions in groundwater storage, differential land subsidence and interconnected surface waters. Justification for use of groundwater elevations as a proxy is provided in Section 5.

It is the preliminary determination that the percentages identified herein represent a sufficient number of monitoring sites in the Subbasin such that their exceedance would represent an undesirable result for water-level declines, reduction in groundwater storage, land subsidence, and interconnected surface waters where applicable. Based on observed groundwater conditions in the future, no less frequently than at each five-year assessment, the GSAs will evaluate whether these percentages need to be changed.

6.2.2.2 Groundwater Storage

The water-level sustainability indicator applies, by proxy, for changes in groundwater storage as well. Given assumed hydrogeologic parameters of the Subbasin, direct correlations exist between changes in water levels and estimated changes in groundwater storage, and water levels are to serve as the metric for groundwater storage reductions as well.

6.2.2.3 Land Subsidence

The primary criteria and metric will be the annual rate of reduction in land surface elevation and areal extent of such elevation changes. The water-level sustainability indicator will be considered, by proxy, for differential land subsidence, although the current body of knowledge relative to subsidence and local and regional declines in water levels is limited.

6.2.2.4 Degraded Water Quality

Groundwater quality degradation will be evaluated relative to established MCLs or other constituents of concern by applicable regulatory agencies. The metrics for degraded water quality shall be measured by MCL compliance or by other constituent content measurements where appropriate. These metrics will include measurements for the following constituents where applicable:

- Arsenic
- Nitrate
- Chromium-6
- DBCP
- TCP
- PCE
- Sodium
- Chloride
- Perchlorate
- TDS

The percentage (i.e. 33%) described in Section 6.2.2.1 for any of the aforementioned constituents at the designated monitoring sites are applicable as metrics for degraded water quality.

6.2.2.5 Interconnected Surface Waters

The water-level sustainability indicator is to serve, by proxy, for establishing interconnected surface waters. Periodic comparisons of surface water elevations in applicable stream channels and adjacent groundwater will be pertinent to this establishment.

6.2.2.6 Seawater Intrusion

The Kaweah Subbasin GSAs have concluded that sustainability indicators for seawater intrusion are essentially non-existent, and thus no criteria need be established.

6.2.3 Potential Effects on Beneficial Uses and Users

Potential effects are generally described for declines in water levels and similarly for reductions in groundwater storage, land subsidence, degraded water quality and for interconnected surface waters.

6.2.3.1 Groundwater Levels

The potential effects of lowered groundwater levels, when approaching or exceeding minimum thresholds and thus becoming an undesirable result, are reduced irrigation water supplies for agriculture and for municipal systems through loss of well capacity, loss or degradation of water supplies for smaller community water systems and domestic wells due to well failures, increased energy consumption due to lowered water levels, and the adverse economic consequences of the aforementioned effects such as increased energy usage to extract groundwater from deeper levels. The same effects occur with reductions in groundwater storage due to the proxy relationship with water levels.

6.2.3.2 Groundwater Storage

The potential effects to beneficial uses and users of reductions in groundwater storage are essentially the same as for declines in water levels. In most cases the direct correlation is with declines in levels; however, some beneficial uses may be tied more specifically to loss of groundwater in storage.

6.2.3.3 Land Subsidence

Differential land subsidence may impact surface infrastructure such as building foundations, paved streets/highways, and water conveyance systems. While not considered alarming within the Kaweah Subbasin, subsidence along the Friant-Kern Canal elsewhere has been an ongoing concern impacting beneficial users of that water supply source. Groundwater deep wells may be adversely impacted due to casing and column failures. Loss of groundwater storage space in the aquifer system can occur with compaction of clay layers within; however, the volume of dewatered and available space existing within the aquifer system is considered extensive and adequate for future recharge during GSP implementation.

6.2.3.4 Degraded Water Quality

The potential effects of degraded water quality from migrating plumes or other induced effects of GSA actions include those upon municipal, small community and domestic well sites rendered unfit for potable supplies and associated uses, and/or the costs to treat groundwater supplies at the well head or point of use so that they are compliant with state and federal regulations. Potential effects also include those upon irrigated agricultural industries, as certain mineral constituents and salt build-up can impact field productivity and crop yields.

6.2.3.5 Interconnected Surface Waters

Water bodies, primarily stream channels, which become temporally disconnected throughout the year from the underlying water table may experience the disappearance of adjacent vegetative habitat considered as a beneficial use of groundwater. Such occurrences are generally restricted to the upper reaches of applicable channels in the forebay region of the aquifer system near the Sierra foothills.

6.2.3.6 Seawater Intrusion

Given the conclusion that seawater intrusion will not be an undesirable result for the Subbasin and no sustainability indicator need be applied, there are no effects upon beneficial uses or users due to seawater intrusion.

GSA RESOLUTION NO. 2019-01

A RESOLUTION OF THE MID-KAWEAH GSA ADOPTING A GROUNDWATER SUSTAINABILITY PLAN

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" (Water Code, § 10720, (d)); and

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

WHEREAS, SGMA requires a GSA manage groundwater in all basins designated by the Department of Water Resources ("DWR") as a medium or high priority, including the Kaweah Subbasin (designated Basin Number 5-22.11); and

WHEREAS, the Mid-Kaweah Groundwater Sustainability Agency (Agency) was formed in September 2015 by the Tulare Irrigation District, the City of Tulare and City of Visalia through a Joint Powers Agreement; and

WHEREAS, in September 2017, the Agency gave notice of its intent to initiate preparation of a Groundwater Sustainability Plan (Plan) in accordance with Water Code §10727.8 and DWR's Emergency Regulations for Groundwater Sustainability Plans §353.6; and

WHEREAS, the Agency worked with interested parties to develop the Plan based on coordination and input from stakeholders, including its public Advisory Committee; and

WHEREAS, during the development of the Plan, the Agency coordinated with other GSAs in the Kaweah Subbasin who are also developing plans and collectively finalizing a Coordination Agreement; and

WHEREAS, the Agency released the draft Plan for public review and comment for a period of 45 days; and

WHEREAS, the Agency considered all comments regarding the Plan and has modified its Plan to reflect such consideration; and

WHEREAS, the Board provided a 90-day notice to all counties and cities operating within the jurisdictional area of the Agency in accordance with Water Code §10728.4, soliciting interest in consultation with the Agency regarding Plan content; and

WHEREAS, on December 18, 2019, the Board held a publicly-noticed hearing considering the adoption of the final Plan in accordance with Water Code §10728.4.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Mid-Kaweah Groundwater Sustainability Agency hereby approve and adopt the Groundwater Sustainability Plan attached hereto as Exhibit A and authorize the submittal of the Plan to DWR no later than January 31, 2020.

_____
Dennis Mederos, Board Chair

ATTEST:

STATE OF CALIFORNIA)
COUNTY OF TULARE) SS.
CITY OF TULARE)

I, Roxanne Yoder, Clerk of the Mid-Kaweah Groundwater Sustainability Agency Board, certify the foregoing is the full and true Board Resolution 2019-01 passed and adopted by the Agency Board at a special meeting held on December 18, 2019, by the following vote:

Aye(s): _____

Noe(s): _____ Absent/Abstention(s): _____

Dated: Clerk of the Board

_____
Roxanne Yoder