KERN GROUNDWATER AUTHORITY

Regular Meeting of Board of Directors
August 23, 2017, 8:00 a.m.
1115 Truxtun Ave., Bakersfield, CA 93301
3rd Floor – Conference Room

AGENDA

This meeting is held in accordance with the Brown Act pursuant to Section 54956 of the California Government Code and the Kern Fan Authority Joint Powers Agreement.

1. Roll Call - Quorum Determination
In the absence of a quorum of the Board the meeting will be adjourned.

2. Public Input
This portion of the meeting is set aside to provide the public an opportunity to bring to the attention of the Board matters of which the Board may not be aware and which are not on the current agenda. No action can be taken on any matter raised during this portion of the meeting; however, a Board member may request that the matter be placed on any future agenda
for further review and possible action. Members of the public may directly address the Board of Directors on any item of interest within the Board's subject matter jurisdiction, before or during the Board's consideration of the item. The President may limit the time allowed for comment.

3. Appointment of Board Chairperson

4. Approval of Minutes
a. July 19, 2017 Regular Board Meeting Minutes

5. Treasurer's Report
a. Accounts Payable/Receivable

6. Managers' Report
a. KGA Coordination Agreement
b. KGA Issues List
c. Preparation of a Groundwater Sustainability Plan
d. CASGEM Compliance

- Denotes Action Item

7. Update on Cal Poly SLO Evapotranspiration Study

8. Groundwater Sharing – An Approach to Groundwater Management

9. New Business

This Portion of the Meeting is set aside to provide each Board member an opportunity to bring to the attention of other Board members and the public matters which have come to their attention and/or which may be appropriate for future consideration. No action can be taken on any matter raised during this portion of the meeting, however, a Board member may request that the matter be placed on any future agenda for further review and possible action.

10. Attorney(s) Report

11. Closed Session

Public Employment – *Government Code Section 54957*

12. Adjournment

A person with a qualifying disability under the Americans with Disabilities Act of 1990 may request the Authority provide disability-related modification or accommodation in order to participate in any public meeting of the Authority. Such assistance includes appropriate alternative formats for the agendas and agenda packets. Requests should be made in person, by telephone, facsimile and/or written correspondence to the Authority office, at least 48 hours before a public Authority meeting. Written materials related to an item on this agenda to be considered in open session that are public documents and that are distributed to board members after the posting of the agenda, will be made available for public inspection when they are so distribution at the office of the Authority located at 849 Allen Road, Bakersfield, California during normal business hours. Documents that are public documents provided by others during a meeting will be available at the same location during business hours after the meeting.

- Denotes Action Item

JPA Special Board Meeting Minutes
Kern Groundwater Authority
Wednesday, July 19, 2017

JPA DISTRICT REPRESENTATIVES AND ALTERNATES PRESENT

Raul Barraza, Jr, Arvin Community Services District
Kevin Pascoe, Arvin-Edison WSD
Dave Fenn, Cawelo, Cawelo WD
Michael James, City of Shafter
Royce Fast & Marty Milobar, KCWA
Andrew Pandol, Kern-Tulare WD
Bill Taube, Kern Water Bank Authority
Gary Unruh, Rosedale-Rio Bravo WSD
Rick Wegis, Semitropic WSD
Jim Regan, SSJMUD
Mark Franz, Shafter-Wasco ID
Patty Poire, Tejon-Castaic WD
Gary Morris, West Kern WD
Michael Blaine, Wheeler Ridge-Maricopa WSD

JPA DISTRICT REPRESENTATIVES AND ALTERNATES ABSENT

Supervisor Couch, County of Kern
Kevin Andrew, North Kern Water Storage District
Jeff Siemens, Olcese WD
Joe MacIlvaine, Westside District Water Authority

OTHERS PRESENT

Steve Collup, Arvin-Edison WSD
Jeevan Muhar, Arivin-Edison WSD
Anona Dutton, Arvin-Edison WSD, via conference call
Doug Gosling, BHG Law Firm
Dave Hampton, Cawelo WD
Dave Ansolabehere, Cawelo WD
Craig Wilson, City of Delano
Jon Parker, Kern Water Bank Authority
Eric Averett, Rosedale-Rio Bravo WSD
Lori Honea, Rosedale-Rio Bravo WSD
Dick Diamond, North Kern WSD
Patrick Mize, North Kern WSD
Jason Gianquinto, Semitropic WSD
Roland Gross, SSJMUD
Harry Starkey, West Kern WD
Greg Hammett, Westside District Water Authority
Valerie Kincaid, O'Laughlin, Paris, LLP
Dee Jaspar, Dee Jaspar & Assoc

Larry Rodriguez, GEI Consultants
Florn Core, Kern County
Alan Christensen, Kern County
Beatris Sanders, Kern County Farm Bureau
Dave Beard, ID4
Gene Lundquist, ID4
Holly Melton, Kern County Water Agency
Mark Mulkay, Kern Delta WD
Rich Tillema, Kern Delta WD
Kevin Antongiovanni, Kern Delta WD
Costas Cecero, Kern-Tulare WD
Ravi Patel, Klein Law
Mark Tomlinson, Kuhs Parker Law
Robert Hartsock, McMurtrey, Hartsock & Worth
Dan Raytis, McMurtrey, Hartsock & Worth
Alex Shafer, Materra Farming
Alan Boyce, Materra Farming
Doug Nunneley, Oildale Mutual
Pres Brittan, Pacific Resources
David Halopoff, Provost & Pritchard
Bret Sill, Sill Properties
Matt Brady, South Valley Farms
Beth Pandol, Water Association of Kern County
George Cappello, Wheeler Ridge- Maricopa WSD
Robert Goff, Wonderful Orchards
Tim Gobler, Wonderful Orchards
Ernest Conant, Young Wooldridge
Scott Kuney, Young Wooldridge
Julie Bell, Providence Consulting
Don Wright
Jim Beck
Austin Ewell, via conference call
Professor Mike Young, Univ of Adelaide, Australia

1. **Call to Order** – Director Fast called the meeting to order at 8:02 a.m. after it was confirmed there was a quorum. We meet the threshold under the JPA and will be operating under it.

2. **Public Comments** – None

3. **Approval of Minutes**
    a. April 26, 2017 Regular Board Meeting Minutes
    b. May 15, 2017 Special Board Meeting Minutes
    c. June 19, 2017 Special Board Meeting Minutes

A motion was made by Director Taube and seconded by Director Pandol to approve the April 26, 2017 Regular Board Meeting Minutes, May 15, 2017 Special Board Meeting Minutes, and the June

19, 2017 Special Board Meeting Minutes as presented. A roll call vote was taken and the motion was unanimously carried.

4. **Treasurer's Report**
    a. **Accounts Payable/Receivable** – Mr. Mize presented the Accounts Payable/Receivable to the Authority Board. After discussion, the Special Activity participants will be invoiced and the receivables will reimburse the general fund. A motion was made by Director Franz and seconded by Director Unruh to authorize the disbursements as of June 30, 2017. The motion was unanimously carried.

5. **Manager's Report**
    a. **RFQ for Manager Position** – Mr. Averett reported that they have received four (4) proposals after the revised RFQ was circulated. They were received from Molly Saso, Terry Maxwell, Provost & Pritchard, and Braun, Gosling. He reported that interviews for Provost & Pritchard and Braun, Gosling have been set up for 07/20. There was no need to re-interview the other two applicants at this time. The position entails up to three (3) positions: 1-Basin Coordinator, 2-Planning Manager, and 3-Administrative Assistant. The Executive Committee will meet and should have a recommendation for the Board.
    b. **KGA Issues List** – Ms. Kincaid confirmed that there is an adjusted Issues List from the attorney's versus what is in the board packet. She will send out the latest version for review. She emphasized that there is a deadline of 08/01 for comments and that these Issues are Basin-wide. They need to be resolved *before* GSP's can be completed.
    c. **DWR Prop 1 Funding for Planning, Development or Preparation of Groundwater Sustainability Plans** – Mr. Averett reported that the DWR Prop 1 has earmarked approximately $100 million for competitive grants that develop or implement groundwater sustainability plans. The Proposal Solicitation Package (PSP) in the packet provides for approximately $86 million to be made available by the fall of 2017. Mr. Rodriguez from GEI said that after a conversation with DWR it would be better to have one (1) app per Basin. The first open filing period is between 08/01/17 and 10/01/17. He reported that everyone submitting a GSP can participate in the coordinated grant. A motion was made by Director Franz and seconded by Director Morris to authorize moving forward with the preparation of a PSP; and authorization of a KGA Special Activity Agreement to fund up to $40,000 for a partnership with the Kern River GSA and possibly Buena Vista GSA. The motion was unanimously carried.

6. **Update on Cal Poly SLO Evapotranspiriation Study**

    Mr. Rodriguez shared that they have all years on a shared point and just received the year 2013. This year needed a correction to match the entire data set. GEI is reviewing it. He reported that the GIS will be sent out for your own boundaries. Mr. Mulkay asked if Todd Groundwater can get a copy of *all* areas for their

model. Mr. Averett said that he will have all participants review their own data first to make sure they are fine with the data sent to Todd Groundwater's modeling efforts. He will send out an email with a deadline for the review period so Todd can receive the data in a timely fashion.

7. **Groundwater Sharing – An Approach to Groundwater Management**– Mr. Averett introduced Professor Mike Young from the University of Adelaide Australia to the Authority Board. Mr. Young gave a brief presentation on specific methods of achieving a sharing system as it pertains to SGMA. Discussion points included:
    - This will NOT create a water market – it creates a system of accounting which in turn can eliminate the "red tape"
    - This creates a common set of accounting principles – absent these and there is just a lot of bureaucracy
    - This sets the foundation that all things can happen by Agreement
    - This gives flexibility to landowners
    - Banking rules will be developed in your own GSP chapters and by Agreement

    Professor Young proposed these questions to the group – How are we going to work out the rules and who gets what? What are the set of rules? There first needs to be trust, respect and accountability. He said that SGMA is "silent" on these. He has written a Road Map template plan that Australia has used that are building blocks to work through these issues. In his Road Map template plan it expands on the following:
    1) Shares (%)
    2) Setting up water accounts
    3) Giving everybody a permit and it must be linked to a water account that is in a positive balance
    4) Need independent Boards
    5) Need an independent Water Master, GM, Chairman
    6) Build a basic structure
    7) Need an architect to help put together the language
    8) Building an accounting system

    Professor Young shared that the language used is important – He uses the term "Zone" instead of Management Area and he uses the term "Share" instead of Water Right. By changing these terms in Australia and Nevada it helped move the process along better.

    Mr. Averett shared that Professor Young will be going into more detail at the Workshop on 08/03 and encouraged others to sign-up and attend.
    He reiterated that we ALL have to come up with something no matter what methodology we use. This is a SGMA requirement. There HAS to be a system of accounting, period!
    Mr. Averett said that the KRGSA would like a smaller policy focus group to discuss this further. He said that after the Workshop on 08/03 they will get a policy group together

to provide a common ground with the other GSA's and also a solid foundation for GSP writing.

8. **Old or New Business** – None

9. **Attorney(s) Report** – Ms. Kincaid reported that the deadline for comments on the Coordination Agreement and the Issues List are both 08/01.

10. **Closed Session** – None

11. **Adjournment** – Director Fast adjourned the board meeting at 9:20 a.m.

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NORTH KERN WATER STORAGE DISTRICT

August 23, 2017

TO: Kern Groundwater Authority Members

FROM: Patrick Mize
Controller / Administrative Manager

RECOMMENDED MOTION

Approve the Treasurer's Report and authorize disbursement of accounts payable as presented in **Exhibit C-1**. Authorize the disbursement of accounts payable as presented in **Exhibit C-2,** subject to Board approval of the budget deficit on Task Order 13 – GSA Filing Support of $924.26 and subject to Board approval of an amendment to increase the Task Order 12 - Remote Sensing Post budget.

DISCUSSION

Exhibit A is the Treasurer's Report for Authority financial activities from July 1, 2017 through July 30, 2017.

Exhibit B is the Aged Accounts Receivable as of July 31, 2017. North Kern will invoice special activities members for their respective budget deficits in August 2017.

Exhibit C-1 is the Aged Accounts Payable as of July 31, 2017, of which we are seeking payment approval. **Exhibit C-2** reflects GEI invoices which are "on hold" pending consideration of budget adjustments to the particular task orders and a request by GEI to approve the payments of Task Order 13, which are over budget by $924.26.

Exhibit D is the Authority's unaudited financial statements for July 31, 2017. They include a Statement of Net Position as of July 31, 2017 and a Statement of Revenues and Expenses for the 7 months ended July 31, 2017. Both statements present the position and results of Authority activities for the general JPA membership and each specific special activities agreement.

Please direct questions regarding the above to either the District's General Manager, Richard Diamond (rdiamond@northkernwsd.com) or the District's Controller, Patrick Mize (pmize@northkernwsd.com). You may also reach us at the District Office, 661-393-2696.

EXHIBIT A
Kern Groundwater Authority
Treasurer's Report - through July 31, 2017

CURRENT ACTIVITY

Cash Balance, Prior Report (June 30, 2017)			97,725.87	
Deposits				
Kern River GSA	7/1/2017	31,146.00		
Arvin CSD	7/28/2017	2,307.70		
			33,453.70	
Disbursements				
The Bakersfield Californian	1534	314.02		
GEI Consultants	1535	36,053.99		
O'Laughlin & Paris, LLP	1536	21,525.00		
Bank Service Charges		2.00		
			57,895.01	
Cash Balance, Current Report (July 31, 2017)			**73,284.56**	
Accounts Receivable				
See Attached "Aged AR"			27,795.40	(1)
(1) Accounts Receivable collected in August		9,230.80		
Accounts Payable				
See Attached "Aged AP"		31,312.92		
See Attached "Aged AP"	On Hold	22,787.03		
			54,099.95	(2)
(2) Accounts Payable disbursed in August		-		
Net Assets, July 31, 2017			**46,980.01**	

DRAFT Kern County Subbasin Coordination Agreement (DRAFT 8.10.17)

THIS COORDINATION AGREEMENT (the "Agreement") is made effective as of _____ by and among the Groundwater Sustainability Agencies ("GSA") within the Kern County Subbasin that have developed a Groundwater Sustainability Plan ("GSP") (each a "Party" and collectively the "Parties") and is made with reference to the following facts:

WHEREAS, On September 16, 2014, Governor Jerry Brown signed into law Senate Bills 1168 and 1319 and Assembly Bill 1739, known collectively as the Sustainable Groundwater Management Act ("SGMA"); and

WHEREAS, SGMA requires all groundwater basins designated as high or medium priority by the Department of Water Resources ("DWR") to manage groundwater in a sustainable manner; and

WHEREAS, the Kern County Subbasin (Basin Number 5-22. 14, DWR Bulletin 118) within the San Joaquin Valley Groundwater Basin, has been designated as a high-priority basin by DWR; and

WHEREAS, the Kern County Subbasin includes ___ GSAs that are managing the Basin through ____ different groundwater sustainability plans ("GSP");

WHEREAS, SGMA allows local agencies to engage in the sustainable management of groundwater, but requires all basins that are managed by more than one GSP to enter into a coordination agreement;

THEREFORE, in consideration of the facts recited above and of the covenants, terms and conditions set forth herein, the Parties agree as follows:

SECTION 1 – PURPOSE

Pursuant to the requirements of SGMA, and the California Code of Regulations relating thereto, specifically Section 357.4 of title 23 of the California Code of Regulations ("CCR"), and in recognition of the need to sustainably manage the groundwater within the Kern County Subbasin (Bulletin 118 Basin 5-22.14) ("Basin"), the Parties hereby agree to the terms of this Agreement.. The purpose of this Agreement is to comply with SGMA coordination agreement requirement and ensure that the multiple GSPs within the Basin are developed and implemented utilizing the same methodologies and assumptions as required under Water Code 10727.6, and that the elements of the GSPs are appropriately coordinated to support sustainable management.

This Agreement includes the criteria for establishing the responsibilities of each GSA for meeting the terms of this agreement, the procedure for the exchange of information between the Parties, and the procedures for resolving conflicts between the Parties. It further sets out the methodologies for the assumptions required by the California Water Code for preparing coordinated groundwater elevation data, groundwater extraction data, surface water supply, total water use, changes in groundwater storage, water budgets, and sustainable yield between the multiple GSPs. The Parties intend that this Agreement be a description of how the multiple GSPs, developed by the individual GSAs, are implemented together to satisfy the requirements of SGMA. The Parties intend this Agreement to be incorporated as part of each individual GSP developed by the Parties.

SECTION 2 – 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 Kern County Subbasin of the San Joaquin Valley Groundwater Basin, defined in DWR's 2016 Bulletin 118 Interim Update as Basin 5-022.14, 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. "CASGEM": refers to the California Statewide Groundwater Elevation Monitoring Program developed by the DWR pursuant to Water Code Section 10920 et seq., or as amended.

7. "Coordination Committee": refers to the governing body of Parties to this Agreement.

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

9. "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.

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

11. "GSP Group": refers to each group of GSAs that are working together to develop a single GSP.

11. "Measureable 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.

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

13. "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 4.6 of this Agreement.

14. "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.

15. "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.

16. "Seasonal high": refers to the highest annual static groundwater elevation that is typically measured in the Spring and associated with stable aquifer conditions following a period of lowest annual groundwater demand.

17. "Seasonal low": refers to the lowest annual static groundwater elevation that is typically measured in the Summer or Fall, and associated with a period of stable aquifer conditions following a period of highest annual groundwater demand.

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).

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, the State Water 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.

22. "Water year type": refers to the classification provided by DWR to assess the amount of annual precipitation in a basin.

SECTION 3 – GENERAL GUIDELINES

3.1 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. However, each Party also understands its participation, as more fully set forth in the Governance section of this Agreement, is based on representation on the Coordination Committee through and by its GSP representatives. 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.

3.2 Adjudication or Alternative Plans in the Basin

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.

SECTION 4 – GOVERNANCE

4.1 Coordination Committee

A Coordination Committee will oversee all activities under this Agreement. The Coordination Committee will consist of three representatives from each GSP Group designated by each GSA within the Basin.

4.1.1 Each Coordination Committee member's compensation for service on the Coordination Committee, if any, is the responsibility of the appointing Party.

4.1.2 Each Coordination Committee member shall serve at the pleasure of the appointing Party, and may be removed from the Coordination Committee by the appointing Party at any time.

4.1.3 The Coordination Committee will meet periodically as needed to carry out the activities described below, but at least monthly. The Coordination Committee will prepare and maintain minutes of its meetings.

4.1.4 The Coordination Committee may appoint subcommittees, workgroups, or otherwise request staff of the Parties to develop technical data, supporting information and/or recommendations on matters including, but not limited to:

4.1.4.1 Development of a process to update the Coordination Committee on the GSP Coordination activities, including the development, planning, financing, environmental review, permitting, implementation, and long-term monitoring of the multiple GSPs in the Basin.

4.1.4.2 Establishing and scheduling meetings as necessary to coordinate development and implementation of the Agreement. Attendance at these meetings may be augmented to include staff or consultants of all Parties to ensure that the appropriate expertise is available.

4.1.4.3 Development of a coordinated data management plan.

4.2 Quorum

In order to take action at a meeting of the Coordination Committee, a majority of Coordination Committee member must be present at the meeting.

4.3 Voting

All actions shall be taken by unanimous or general consent among the members of the Coordination Committee present at the meeting. The process for obtaining consent or approval of the Coordination Committee shall be the following: the Chair shall ask for an initial motion and a second motion, after these motions, the Chair shall ask if there are any objections from voting Coordination Committee members. If there are no objections, the Chair shall announce the matter or action has been approved or adopted. If a voting member of the Coordination Committee objects, the matter or action shall be deemed not approved or adopted at that time.

4.4 Meetings

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

4.5 Officers

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

4.6 Plan Manager

The Plan Manager shall be appointed and may be removed by the Coordination Committee with or without cause. The Plan Manager shall serve as the point of contact for DWR as specified in California Code of Regulations, § 357.4, subd. (b)(1). The Plan Manager's role as the point of contact will be to communicate information, decisions, and policy direction from the Coordination Committee to DWR. In this role, the Plan Manager shall, at the direction of the Coordination 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 has no authority to make policy decisions or represent the Coordination Committee without the specific direction of the Coordination Committee. The Plan Manager is obligated to disclose all communications he/she receives in his/her capacity as Plan Manager to the Coordination Committee, either in open or closed session meetings, or as otherwise appropriate.

SECTION 5 – EXCHANGE OF DATA AND INFORMATION

5.1 Exchange of Information

The Parties acknowledge and recognize pursuant to this Agreement that the Parties may need to exchange information amongst and between the Parties.

5.2 Procedure for Exchange of Information

5.2.1 The Parties may exchange information through collaboration and/or informal requests made at the Coordination Committee level or through subcommittees designated by the Coordination Committee. However, 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 Coordination 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.

5.2.2 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 Coordination Committee.

5.3 Non-Disclosure of Confidential Information

It is understood and agreed to that, pursuant to Section 5.2 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:

5.3.1 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.

5.3.2 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.

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

5.3.4 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.

5.3.5 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.

5.3.6 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.

5.3.7 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.

SECTION 6 – METHODOLOGIES & ASSUMPTIONS

Pursuant to California Water Code section 10727.6 and Section 357.4 of the California Code of Regulations, the Parties enter 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) changes in groundwater storage; 6) water budgets; and 7) sustainable yield.

Prior to, and during, the development of individual GSPs, the Parties agree to develop agreed-upon data and methodologies and assumptions for 1) groundwater elevation data; 2) groundwater extraction data; 3) surface water supply; 4) total water use; 5) changes in groundwater storage; 6) water budgets; and 7) sustainable yield, and to utilize such data and methodologies in their GSPs-. Development of these methodologies and assumptions may be facilitated through the Coordination Committee's delegation to a subcommittee or workgroup of the technical staff of each of the Parties. The basis upon which the methodologies and assumptions will be developed includes existing data/information, best management practices, and/or best modeled or projected data available.

SECTION 7 – MONITORING NETWORK

7.1 In accordance with California Code of Regulations, title 23, sections 354.32 – 354.40 the Parties hereby agree to develop monitoring network objectives for the Basin. Each network shall facilitate 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 shall include monitoring objectives, protocols, and data reporting requirements.

7.2 The Parties agree the monitoring network(s) will demonstrate short-term, seasonal, and long-term trends in groundwater and related surface water conditions. Each Party's GSP will describe the monitoring network's objectives for the Basin, including an explanation of how the network will be developed and implemented 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 affects and effectiveness of GSP implementation. The Parties shall implement the monitoring network objectives to 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 measureable objectives and minimum thresholds; and d) quantify annual changes in water budget components.

7.3 The Parties hereby agree to design a monitoring network that will achieve the following for the enumerated sustainability indicators:

7.3.1 Chronic Lowering of Groundwater Levels:

The network shall collect information sufficient to demonstrate groundwater occurrence, flow directions, and hydraulic gradients between principal aquifers and surface water features by the following methods: a) density of monitoring wells to collect measurements through depth-discrete perforated intervals to characterize the groundwater table or potentiometric surface for each principal aquifer; and b) take static groundwater elevation measurements, at least two times a year, representing seasonal low and high conditions.

7.3.2 Reduction of Groundwater Storage:

The network will provide sufficient data for the GSAs to estimate the change in annual groundwater in storage.

7.3.3 Degraded Water Quality:

The network will collect sufficient spatial and temporal data from each applicable principal aquifer to determine groundwater quality trends for water quality indicators, as determined by the GSA, to address known water quality issues.

7.3.4 Land Subsidence:

The network will identify the rate and extent of land subsidence, which may be measured by extensometers, surveying, remote sensing technology, or any other appropriate method.

7.4 The Parties shall determine the density of monitoring sites and frequency of measurements required to demonstrate short-term, seasonal, and long-term trends based upon the following factors: a) the amount of current and projected groundwater use; b) aquifer characteristics, including confined or unconfined aquifer conditions or other physical characteristics that affect groundwater flow; c) impacts to beneficial uses and users of groundwater and land uses and property interests affected by groundwater production, and adjacent basins that could affect the ability of that basin to meet the sustainability goal; d) whether individual GSAs have adequate long-term existing monitoring results or other technical information to demonstrate an understanding of aquifer response.

7.5 Parties may designate a subset of monitoring sites as representative of conditions in the Basin or a portion of the Basin in accordance with Section 354.36 of the California Code of Regulations.

7.6 The Parties shall identify data gaps where the Basin does not contain sufficient monitoring sites, where the frequency of monitoring is insufficient, or sites are unreliable. If such gaps are identified, the Parties shall describe the reason for the gap and describe actions that will be taken to remedy such gaps.

7.7 The Parties hereby agree pursuant to Section 5, 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.

SECTION 8 – COORDINATED WATER BUDGET

8.1 In accordance with the California Code of Regulations, title 23, section 357.4 subdivision (b) the Parties hereby agree to prepare a coordinated water budget for the Basin as described in this sub-section, as required by 23 CCR 354.18. The water budget will provide an accounting and assessment of the total annual 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.

8.2 The Parties agree to consider the following information provided, as available, by DWR pursuant to 23 CCR 353.2, or other data of comparable quality, to develop the water budget:

8.2.1 Historical water budget information for mean annual temperature, mean annual precipitation, water year type, and land use;

8.2.2 Current water budget information for temperature, water year type, evapotranspiration, and land use; and

8.2.3 Projected water budget information for population, population growth, climate change, and sea level rise.

8.3 The Parties shall consider the best available information and best available science to quantify the water budget for the Basin in order to provide an understanding of historical and projected hydrology, water demand, water supply, land use, population, climate change, sea level rise, groundwater and surface water interaction, and subsurface groundwater flow.

8.4 The Parties will ensure the same data, methodologies, and assumptions are used by relying on the following data, based on direct measurements or estimates, in developing the Basin water budget:

8.4.1.1 Total surface water entering and leaving the Basin by water source type.

8.4.2 Inflow to groundwater systems by water source type, including subsurface groundwater inflow and infiltration of precipitation, applied water, and surface water systems, such as lakes, streams, rivers, canals, springs and conveyance systems.

8.4.3 Outflows from groundwater systems by water use sector, including evapotranspiration, groundwater extraction, groundwater discharge to surface water sources, and subsurface groundwater outflow.

8.4.4 The change in the annual volume of groundwater in storage between seasonal high conditions.

8.4.5 If overdraft conditions occur, as defined in DWR's 2016 Bulletin 118 Interim Update, the water budget shall include a quantification of overdraft over a period of years during which water year and water supply conditions approximate average conditions.

8.4.6 The water year type associated with the annual supply, demand, and change in groundwater stored.

8.4.7 An estimate of sustainable yield for the Basin.

8.5 The Parties agree to estimate the current, historical, and projected water budget for the Basin as follows:

8.5.1 Current water budget information shall quantify current inflows and outflows for the Basin using the most recent hydrology, water supply, water demand, and land use information.

8.5.2 Historical water budget information shall be used to evaluate availability or reliability of past surface water supply deliveries and aquifer response to water supply and demand trends relative to water year type. The historical water budget shall include the following:

8.5.2.1 A quantitative evaluation of the availability of historical surface water supply deliveries as a function of the historical planned versus actual annual surface water deliveries, by surface water source and water year type, and based on, at a minimum, the most recent ten years of surface water supply information.

8.5.2.2 A quantitative assessment of the historical water budget, starting with the most recently available information and extending back a minimum of ten years, or as is sufficient to calibrate and reduce the uncertainty of the tools and methods used to estimate and project future water budget information and future aquifer response to proposed sustainable groundwater management practices over the planning and implementation horizon.

8.5.2.3 A description of how historical conditions concerning hydrology, water demand, and surface water supply availability or reliability have impacted the ability of the GSA to operate the Basin within its sustainable yield. Basin hydrology may be characterized and evaluated using water year type.

8.5.3 The projected budget shall include the evaluation of historical budget, current water supplies, and projected changes to these supplies.

8.6 The Parties agree to use the projected water budgets to estimate future baseline conditions of supply, demand, and aquifer response to their GSP implementation, and to identify the uncertainties of these projected water budget components. The Parties shall utilize the following methodologies and assumptions to estimate future baseline conditions concerning hydrology, water demand and surface water supply availability or reliability over the planning and implementation horizon for the projected water budget.

8.6.1 To the extent available, use 50 years of historical precipitation, evapotranspiration, and streamflow information as the baseline condition for estimating future hydrology. The projected hydrology information shall also be applied as the baseline condition used to evaluate future scenarios of hydrologic uncertainty associated with projections of climate change and sea level rise.

8.6.2 Projected water demand shall utilize the most recent land use, evapotranspiration, and crop coefficient information as the baseline condition for

estimating future water demand. The projected water demand information shall also be applied as the baseline condition used to evaluate future scenarios of water demand uncertainty associated with projected changes in local land use planning, population growth, and climate.

8.6.3 Projected surface water supply shall utilize the most recent water supply information as the baseline condition for estimating future surface water supply. The projected surface supply shall also be applied as the baseline condition used to evaluate future scenarios of surface water supply availability and reliability as a function of the historical surface water supply as identified in the historical water budget and the projected changes in local land use planning, population growth, and climate.

SECTION 9 – COORDINATED DATA MANAGEMENT SYSTEM

The Parties will develop and 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.

Parties will develop and maintain separate data management systems. The data management system will store information related to implementation of individual GSPs, monitoring network data and monitoring sites requirements, and water budget data requirements. Each system will be capable of reporting all pertinent information to the Coordination Committee in a manner capable of being easily combined with other GSP data management systems' data, and for ultimate reporting to DWR. After providing the Coordination Committee with data from the individual GSPs, the Coordination Committee will ensure the data is stored and managed in a coordinated manner throughout the Basin.

SECTION 10 – ADOPTION AND USE OF THE COORDINATION AGREEMENT

10.1 Cooperative Implementation of GSPs

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 and are in substantial compliance with the SGMA related California Code of Regulations. The collective GSPs will satisfy 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 measureable objectives, and monitoring protocols that together provide a detailed description of how the Basin(s) as a whole will be sustainably managed. The Parties will develop 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 the SGMA and the SGMA related California Code of Regulations.

10.2 GSP and Coordination Agreement Submission

The Parties agree to submit their respective GSPs to DWR through the Coordination Committee and Plan Manager. The Plan Manager will be responsible for submittal of plans to DWR in accordance

with California Water Code section 10733.4, subdivision (b)(1)-(c). However, prior to this submittal, the Coordination Committee must take action to authorize such submittal. The Parties intend that this Agreement suffice to fulfill the requirements of providing an explanation of how the GSPs implemented together satisfy the sections 10727.2, 10727.4 and 10727.6 for the entire Basin.

In the event it appears that the entire Basin may not be covered by one or more GSPs as of January 31, 2020, each Party may take such action as deemed necessary or appropriate by such Party with respect to filing its GSP and/or other documents with DWR.

SECTION 11 – Modification and Termination of the Agreement

11.1 Modification

The Parties hereby agree that this Agreement 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.

11.2 Withdrawal and Termination

A Party may unilaterally withdraw from this Agreement without causing or requiring termination of this Agreement, effective upon 30 days notice to the Coordination Committee Chair. 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.

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.

SECTION 12 – Dispute Resolution

12.1 Procedures for Resolving Conflicts

In the event that any dispute arises among the Parties relating to this Agreement or the rights and obligations arising from this Agreement, the aggrieved Party or Parties shall provide written notice to the other Parties of the dispute. Within thirty (30) days after such written notice, the Parties shall attempt in good faith to resolve the dispute through informal means. If the Parties cannot agree upon a resolution of the dispute within thirty (30) days from the providing of written notice specified above, the dispute may be submitted to voluntary mediation prior to commencement of any legal action. The cost of mediation shall be paid in equal proportion among the Parties to the dispute. Upon completion of mediation, if any, and if the controversy has not been resolved, any Party may exercise any and all rights to bring a legal action relating to the dispute.

12.2 Litigation

In the event a dispute or claim is not resolved by a mutually agreeable settlement through negotiation or mediation, the aggrieved Party may file suit in a County Superior Court with jurisdiction to provide a binding decision on the matter.

_____ _____

GSA Name Date
Name of Representative
Title
Address
Contact Information

Legal Issues Analysis Project

The project is to have KGA counsel Valerie Kincaid prepare an expository paper(s) analyzing legal issues that affect the allocation of a material amount of groundwater in the Kern Basin and which are relevant to preparation of multi-agency GSPs and the coordination agreement. This paper would report how established legal precedents and applicable laws apply to the legal questions presented, explain how the facts in the cases affected the decisions and how they may relate to the facts present in Kern, and where governing law is unsettled or absent, acknowledge that and discuss relevant legal principles that may be applied by future courts to resolve the questions. KGA counsel will not make determinations of what the hydrogeological facts are within the Sub-basin but will base the work on the commonly understood fact that the Sub-basin is in severe overdraft. This paper will be shared with counsel for Kern participants, who may provide critiques and further analysis. The objective is to foster a collaborative analysis of claims to groundwater and empower participants to negotiate and/or dismiss claims that have little or no legal basis.

The initial list of issues is as follows:

1. Much of the water that recharges the Kern Basin starts as native water in the Kern River and other mountain streams (including but not limited to Grapevine Creek, El Paso Creek, Tejon Creek, Caliente Creek, and Poso Creek.) Other inputs are subsurface flows. Additional inputs are provided by imported surface supplies. When this water percolates or moves into the basin, what portions (pursuant to what actions) are specifically credited to someone? What portions remain available to basin?

   a. Percolation from Surface waters: One holding rights based on pre-1914, SWRCB or other rights of appropriation diverts (i) it into a separate natural channel, or (ii) a lined or an unlined canal, certain conveyance losses percolate into basin? One holding rights based on pre-1914, SWRCB or other rights of appropriation diverts and delivers the supply and (iii) puts it to beneficial use on a farm or M&I use and a portion ("return flow") percolates into the basin after use, (iv) directly recharged for basin benefits (e.g. by recharge participants in the Pioneer Project), (v) banked and credited to a recharger's account, or (vi) banked along with it's part of agreed losses per the MOU and/or a CEQA document? Does anyone who holds a pre-1914, SWRCB, or other right appropriated water right in a creek, stream or river have any valid claim to water that has percolated from the creek, stream or river to the basin, but was not actually "diverted" from the natural channel of the creek, stream, or river?
   b. Groundwater: (i) Subterranean flows in and out of the county from and to the north? (ii) Flows into the Kern Basin from the White Wolf Basin?
   c. Do any of the above vary based on (i) type of water right the diverter (or non-diverting water right owner) holds, (ii) type of use (domestic, M&I, irrigation), (iii) the native water would or would not have percolated into the Kern Basin without the foregoing actions (under current conditions, or at some prior point in time); or (iv) the percolation that took place without a diversion from a creek, stream or river occurred with or without some objectively expressed intent to "recharge" the undiverted water for future use?

2. Respecting the water that recharges the basin, which is not credited to a specific entity, is it allocated to the basin as a whole and divided among all basin overlying landowners, or is it allocated to subsets or specific areas of the basin? What precedents are there for allocating yield to subsets of the basin based on which sources of water flow where absent clear hydrologic barriers?

a. If some water won't ever make it to a part of the basin (e.g. if Sierra runoff won't make it to the northwest corner of the county), is that part of the basin deemed to not benefit from that water?
b. To what extent do groundwater contours, hydrogeology and locality of percolated surface water affect groundwater allocations?
c. What geologic time period is relevant and how long can water take to move to another area for overlying lands to benefit from water recharging the basin?
d. Do we look at the basin condition as it exists now or at some prior point in time?
e. Do overlying lands adjacent to or near the mountains/streams/underground inflows that are the source of the water have a priority claim to those inflows?
f. Do areas of dormant/unexercised overlying rights (i.e. rangelands) lose their priority claim (if any) to groundwater? What if these lands are farmable and were farmed in the past? What if the future use is a de minimis use?
g. Do lands that are within the Sub-basin as defined by Bulletin 118 but do not overly usable groundwater receive credit for any portion of the resource?
h. To what extent do underlying conditions and water quality affect groundwater allocations?
i. To what extent does the type of use matter?

3. What are the characteristics of underground water that will cause it to be considered not groundwater regulated by SGMA (e.g. too deep, too salty, polluted, other geologic circumstances, etc.)? What are the conditions precedent, parameters and limitations to making that finding? If someone in fact pumps this water and treats and/or uses it, is this considered "new water" that they can use or sell free of basin pumping limitations? Is water generated as a by-product of oil/gas extraction that is thereafter treated and put to beneficial use considered "new water"?

4 General Questions that may or may not relate to the above issues:

a. Is the exercise of an overlying right limited to pumping from the land in question, within some proximity to the land in question, or may the owner pump from anywhere within the basin? Same question as to both appropriative and prescriptive pumping.
b. How does the use of surface water in lieu of groundwater affect groundwater rights?
c. If a priority for groundwater is available for domestic and/or M&I uses, what if any are the limitations?
d. At what point in time is the basin deemed to be in "overdraft"?

e. Is there any restriction on recovering banked water that may have migrated, and if so what?

Activity Report

Professional Services for the months of May - July 2017

Consulting Engineers and Scientists

To: Kern Groundwater Authority
From: GEI Consultants, Inc.
Date: August 23, 2017

SUMMARY

This report summarizes the activities performed by GEI Consultants, Inc. (GEI) for the Kern Groundwater Authority (KGA), under Professional Services Agreement No. KGMC-001. Activities are broken out by active Task Order (TO) below.

TO-7: Project Management, Meetings, and As-Requested Services

This TO covers GEI's project management, participation in KGA Board and Committee meetings, and other as-requested services for CY 2017.

- Project Management:
  - Provided general project management support in coordination with Eric Averett.
- KGA Meetings:
  - Attended and participated in the following KGA meetings:
    - KGA Board meetings on April 26, May 15, June 19 and July 19, 2017.
    - Coordination Committee on July 10 and August 7, 2017.
- As-Requested Services:
  - None.

- **TO-11: Groundwater Sustainability Plan Framework**

  Under this Task Order, GEI will identify required GSP elements and develop a GSP framework that recommends which elements would be included in a KGA GSP (or "Umbrella GSP") and in members' "Chapter GSPs" as broadly described in the Amended and Restated JPA Agreement.

GEI the first of a series of workshops to review the GSP framework on April 4, 2017. A second meeting was held on May 1 to review additional detail of a GSP structure. There has been no recent activity.

- **TO-12: Remote Sensing Post Processing**

  Under this Task Order, GEI will conduct the "post-processing" of the ITRC dataset using GIS software to compile the information into a useful format for the Special Activity participants.

  GEI has reviewed and ET data provided by Cal Poly and has worked with Dr. Howes to correct error and other anomies in the data set. Cal Poly provided a replacement data set and which GEI reprocessed, provided QA/QC and re-packaged for distribution. A Technical Memo has been prepared explain the data and all data has been parsed to the management areas of the Special Activities participants.

- **TO-13: GSA Filing Support**

  Under this Task Order, GEI will support the filing of a GSA with DWR, including conducting stakeholder meetings, preparing GSA boundary maps, and completing all filing materials to DWR.

  GEI has documented the resolution of all GSA boundary issues to ensure and as prepared a map that can be included in the GSA filing submittal to DWR. At the request of Eric Averett, GEI provided assistance to the City of McFarland for their GSA filing.

PAST & CURRENT EXPENDITURES

The table below compares GEI expenditures through the end of July 2017 to the total authorizations for active Task Orders.

TO #	Description	Total Authorization	GEI Expenditures Previous Billings	Previous Bill (6/8/2017)	Previuos Bill (7/10/2017)	Current Bill (8/8/2017)	Remaining Authorization
7	PM, Meetings, As-Requested Srvcs	$ 75,000	$ 14,718	$ 4,718	$ 1,558	$ 522	$ 53,484
9	DWR Ag Water Use Efficiency Grant	$ 30,000	$ 17,997	$ 470			$ 11,532
11	GSP Framework	$ 34,000	$ 29,577	$ 1,240			$ 3,183
12	Remote Sensing Post Processing	$ 30,000	$ 23,881	$ 8,879	$ 6,324	$ 4,234	$ (13,318)
13	GSA Filing Support	$ 30,000	$ 27,574	$ 3,350			$ (924)
		$ 199,000	**$ 113,748**	**$ 18,657**	**$ 7,881**		**$ 53,957**

STANDARD PROFESSIONAL SERVICES AGREEMENT
AGREEMENT NO. KGMC-0001

EXHIBIT A
TASK ORDER NO. 12
AMENDMENT 1

Kern Groundwater Authority
Special Activity Agreement – Remote Sensing Post Processing

The Scope of Work, Schedule and Project Budget have been developed to support a Special Activity of the Kern Groundwater Authority (KGA). This Task Order amendment supplements GEI efforts to process, QA/QC, interact with California Polytechnic State University's Irrigation Training & Research Center (ITRC) and repackage 20 years of historical evapotranspiration (ET) data provided by ITRC.

SCOPE OF WORK

ITRC has developed historical evapotranspiration data for the entire Kern Groundwater Subbasin. This dataset extends over twenty years from January 1993 through December 2012, with monthly and annual data provided electronically by ITRC in the form of GIS "raster" images at 30-meter pixel resolution.

Under the original Scope of Work, GEI conducted "post-processing" of the first dataset provided by ITRC and performed preliminary QA/QC of the data. During this initial process, GEI and ITRC identified certain errors in the data that needed to be corrected. ITRC corrected the data and supplied a replacement data for the twenty year period. Following the additional re-processing of the second ITRC data set, GEI will compile the information into a useful format for the Special Activity participants. In particular, GIS layer packages will be prepared along with data tables indicating the acreages and ET values for each year in the analysis, for the entire Kern Subbasin and for each participant.

GIS Layer Packaging by District

A separate GIS layer package will be created for each Special Activity participant. Each layer package will be configured in such a way that each 30-meter pixel will have an ET value associated with it for each year, and will allow districts to isolate ET for selected areas (i.e. agricultural fields) and for selected years or a series of years. The GIS layer packages will be provided to each participating district either via web-based application, or provision of actual GIS files, or both.

Trend Analysis and Summary Report

Basin-wide and district-level trends in ET data will be developed for the 20-year dataset, including detailed data tables showing annual ET for each Special Activity participants' service area. A summary report will be

developed by GEI describing the work conducted by GEI, and observations from the ET trend analysis. The results will be presented in both PowerPoint and a technical memorandum to the KGA.

Deliverables:

1. *District-level ET GIS layer packages for each Special Activity participant.*
2. *Technical Memorandum and Presentation of results regarding the ET trend analysis.*

SCHEDULE

This Task Order amendment will extend the original task order to December 31, 2017, unless extended by an additional amendment.

BUDGET

The total cost for the additional services needed to complete the ITRC data processing is not exceed **$17,000** for all labor, materials and support costs required to provide the services and deliverables described within this Task Order. This budget augments the original Task Order budget of $30,000, for a total budget of **$47,000.**

Should GEI anticipate that additional monies or additional time will be needed to complete this Task Order, GEI shall notify the CLIENT at least 30 days prior to the depletion of funds or expiration of this Task Order in order to begin an amendment to this Task Order.

AUTHORIZING SIGNATURES

GEI and the CLIENT agree that the services described in this Task Order will be performed in accordance with the terms and conditions of the Professional Services Agreement.

For CLIENT:	**For GEI:**
By: _____	By: _____
(Signature)	(Signature)
_____	_____
(Print Name)	(Print Name)
_____	_____
(Title)	(Title)
_____	_____
(Date)	(Date)