

Tule Subbasin  
Sustainable Groundwater Management Act  
GSAs Technical Advisory Committee Meeting

November 15, 2017

LTRID Office Conference Room  
1400 (2:00 p.m.)

Agenda

1. Minutes of the 19 September 2017 (as revised) and the minutes of the 17 October 2017 TAC Meeting (Attachments)
  
2. Hydrogeologist
  - Water Budget and Sustainable Yield for each GSA
  - Overdraft for each GSA
  - Model Development Status
  - Thomas Harder & Co. Invoice No. 4, Groundwater Flow Model Development (attached)
  
3. Memorandum of Understanding (MOU)
  - MOU Agreement, Status of Execution by GSAs
  - Final Coordination Agreement and Components Preparation
  
4. Groundwater Sustainable Plans
  - Table of Contents (Outline) Preparation
  
5. Subbasin Grant
  - Status Report on Application
  - Components to be Funded
  
6. Budget, Financial Report & Funding Status
  - WY 2018 Budget Comparison
  - Financial Report
  
7. Next Meeting
  - Proposed Next GSA Technical Advisory Committee Meeting 17 January 2018 @ 1400

## **Tule Subbasin**

Minutes of the Sustainable Groundwater Management Act  
GSAs Technical Advisory Committee Meeting  
September 19, 2017

The Tule Sub-Basin Technical Advisory Committee, GSA representatives, met on September 19, 2017 in the conference room of Lower Tule River Irrigation District in Tipton, CA. The meeting was called to order by Mr. Schafer at 2:01 pm with the following in attendance:

### **TriCounties GSA**

Deanna Jackson, Representative

### **Eastern Tule JPA GSA**

Michael Reed, Representative  
Michael Knight, Representative  
Sean Geivet, Representative  
Costas Cecero, Representative  
Keith Norris, Representative  
Steve Drumright, Representative

### **County of Tulare GSA**

Denise England, Representative

### **Alpaugh GSA**

David Kahn, Attorney

### **Others Present**

Bill Wallace, Grower  
Tom Harder, Thomas Harder & Company  
Armando Leal, Grower  
Kathy McLaughlin, BLM Representative  
Allan Lombardi, Pioneer Water Company

### **Lower Tule River Irrigation District GSA**

Mike Faria, Representative  
Vincent Sola, Representative  
Eric Limas, Representative

### **Pixley Irrigation District GSA**

Mike Pitigliano, Representative  
Eric Limas, Representative

### **Delano Earlimart Irrigation District GSA**

Dale Brogan, Representative  
Eric Quinley, Representative

### **Attorney**

Jim Koontz, Peltzer & Richardson

### **Coordinator**

R. L. Schafer, TRA

### **Secretary**

David De Groot, TRA

Brandon Elsen, Aquilogic  
Tim Gobler, Wonderful Orchards  
Andy Edstrom, Wonderful Orchards  
Carole Combs, Tulare Basin Wildlife Part.  
Philip Shepard, Grower

After self-introductions, Mr. Schafer provided a copy of the Agenda for the meeting. No additions or deletions were proposed.

The minutes of the Tule Subbasin Technical Advisory Committee meeting of 30 August 2017, by motion of Committee Representative Sean Geivet, seconded by Committee Representative Dale Brogan, and unanimously carried, were approved.

Hydrogeologist:

A copy of the final Hydrogeological Conceptual Report of the Tule Subbasin prepared by Hydrogeologist Thomas Harder was distributed via email to the committee representatives and any others that requested a copy.

As a part of the development by each GSA, in the preparation of their GSP, and in the development of the Coordination Agreement, Thomas Harder provided a proposal to granulate the subbasin water budgets and overdraft to each individual GSA, including calculations for underflow and outflow at each GSA, along with a segregation of the Tule Subbasin overdraft to each GSA. Thomas further stated that this analysis for each GSA could be ready for draft presentation during November 2017. After discussion, DEID GSA representative Dale Brogan moved to accept the proposal prepared by Thomas Harder for \$25,950. The motion was seconded by Eastern Tule JPA GSA representative Sean Geivet, and carried by the GSA representatives. Deanna Jackson of the Tricounties GSA stated Representative Matt Hurley could not be in attendance but would be providing a response to the proposal.

Thomas Harder further reported that the groundwater flow model continues to be developed by filling in data gaps and compiling the information required.

A copy of the Thomas Harder and Company Invoice No. 2, Groundwater Flow Model, was provided to the committee representatives, which was accepted for payment.

Memorandum of Understanding (MOU), Coordination Agreement:

Denise England reported that Tulare County has comments regarding the Draft MOU that would be provided to Attorney Jim Koontz for review. After the comments from Tulare County are addressed, a final draft will be circulated to the GSAs for final review and approval. The revised MOU will then be available for signature of each of the GSA within the Tule Subbasin.

Attorney Jim Koontz also reminded each GSA to provide final signed copies of the MOU allowing the LTRID GSA to be the Fiscal Agent for the Tule Subbasin group.

Mr. Schafer reported the managers group met for discussion of the sustainable yield calculation as requested by representative Brogan and agreed to coordinate a meeting with Dr. Howes and Thomas Harder to discuss the effects on the sustainable yield calculation with different technologies for measurement of groundwater extractions.

The Committee agreed to form a subcommittee for preparation of the seven components of the Coordination Agreement to be provided to the GSA Technical Committee for review and approval. The subcommittee of GSA representatives to be identified will also include the technical consultants of Thomas Harder, R.L. Schafer, and David De Groot.

Delano Earlimart Irrigation District Manager Eric Quinley referred to the memorandum provided during the August 2017 meeting pertaining to the land subsidence impacts currently occurring in the Friant Kern Canal. Thomas Harder stated that land subsidence is a component of the groundwater flow model and the technical information would be shared with the committee as it is developed. The committee agreed to conduct further discussions as a part of the Coordination Agreement on the Tule Subbasin land subsidence monitoring network and the means to transition the data for minimizing further land subsidence to prevent an undesirable result.

Tulare County Grant:

Denise England reported that the County of Tulare has received the initial invoice from DCTRA for the grant reimbursement funds and the County is processing the invoice for payment.

Proposition 1 Subbasin GSP Grant:

David De Groot reported that a scope and summary of work to be included in the Proposition 1 Grant application continues to be developed and will be presented during the October 2017 meeting. After discussion, the committee representatives agreed to focus the grant efforts on subbasin wide activities associated with the Coordination Agreement elements, including preparation of the Groundwater Flow Model, development of a subbasin groundwater monitoring network, development of a land subsidence monitoring network, and potentially utilization of the LandSAT METRIC analysis for the entire Tule Subbasin, if agreed after further discussions with Dr. Howes. If funds are remaining from the \$1.5 million grant, the funds would be allocated to each GSA based upon acreage for development of their GSP.

Budget, Financial Report, and Funding Status:

A copy of the September 19, 2017 Financial Report was provided to the committee for review. The Report identified no cash receipts or cash disbursements during the month of September 2017, leaving an ending cash balance of \$101.10, but with outstanding bills of \$60,501.78, and a net balance of \$(60,400.68). The fiscal agent was instructed to hold the remaining invoices until receipt of grant funds from Tulare County.

A 2017 fiscal year budget comparison for the Tule Subbasin SGMA MOU Group as of 31 August 2017 was presented. Expenditures for the period, October 1, 2016 through August 31, 2017, were \$287,196 and 58.9% of the amended 2017 fiscal year budget of \$487,389.

A proposed 2018 fiscal year budget was presented to the committee for review, identifying a total draft budget of \$601,500, an estimated FY beginning cash balance of \$125,000 considering the County reimbursement grant funds, and the potential of an additional \$425,000 in grant funds during the 2018 FY. After detailed review and discussion, it was the consensus of the committee representatives to increase the budget amount to \$626,500 and recommend each GSA Board accept and approve the proposed budget. A copy of the proposed 2018 FY budget is included as Exhibit A.

The Technical Advisory Committee agreed to schedule a follow up meeting October 17, 2017 at 2:00 pm in Tipton at the Lower Tule River Irrigation District office.

Other Business

Mr. Schafer reminded the committee and those at the meeting of a SGMA meeting in Clovis, CA on September 20<sup>th</sup> for a presentation from DWR. Additionally, Carole Combs announced an upcoming meeting on October 12, 2017 in Tulare, CA referred to as "Headwater to Groundwater Symposium" for discussion on SGMA related matters.

Adjournment

The Technical Advisory Committee meeting was adjourned at 3:31 p.m.

Respectfully Submitted:

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David De Groot - Secretary

# Tule Subbasin

Minutes of the Sustainable Groundwater Management Act  
GSA Technical Advisory Committee Meeting  
October 17, 2017

The Tule Sub-Basin GSA Technical Advisory Committee, Representatives, met on October 17, 2017 in the conference room of Lower Tule River Irrigation District in Tipton, CA. The meeting was called to order by Mr. Schafer at 2:00 pm with the following in attendance:

**Tri-County GSA**

Deanna Jackson, Representative  
Matt Hurley, Representative

**Eastern Tule JPA GSA**

Michael Reed, Representative  
Michael Knight, Representative  
Sean Geivet, Representative  
Costas Cecero, Representative  
Keith Norris, Representative  
Steve Drumright, Representative  
Dyson Schneider, Representative

**Alpaugh GSA**

David Kahn, Attorney  
Bruce Howarth, Representative

**County of Tulare GSA**

None Present

**Others Present:**

Allan Lombardi, Pioneer Water Company  
Brandon Eisen, Aquilogic  
Paul Hendrix, Tulare Irrigation District

**Lower Tule River Irrigation District GSA**

Mike Faria, Representative  
Vincent Sola, Representative  
Eric Limas, Representative

**Pixley Irrigation District GSA**

Mike Pitigliano, Representative  
Eric Limas, Representative

**Delano Earlimart Irrigation District GSA**

Dale Brogan, Representative  
Eric Quinley, Representative

**Coordinator**

R. L. Schafer, TRA

**Secretary**

David De Groot, TRA

**Attorney**

Jim Koontz, Peltzer & Richardson

Kathy Wood McLaughlin, BLM  
Michael Tharp, R.L. Schafer & Associates  
Carole Combs, TBWP

After self-introductions, Mr. Schafer provided a copy of an Agenda for the meeting. No additions or deletions were proposed.

The minutes of the Tule Subbasin GSA Technical Advisory Committee meeting of 19 September 2017, by motion of Representative Eric Quinley, seconded by Representative Steve Drumright, and unanimously carried, were approved as corrected.

**Hydrogeologist:**

Hydrogeologist Thomas Harder stated the work to granulate the Tule Subbasin water budgets and overdraft for each GSA, including calculations for underflow and outflow of each GSA, is in progress and will be available for draft review during the November 2017 meeting.

Thomas Harder further reported that the groundwater flow model continues to be developed filling in data gaps and compiling the information available. Mr. Harder stated, draft operational data from the model will be presented to the committee during the January 2018 meeting.

A copy of the Thomas Harder and Company Groundwater Flow Model Development Invoice No. 3 was provided to the representatives, which was accepted for payment.

**DWR Groundwater Management Program Updates, September 20, 2017 Workshop for GSAs**

The Department of Water Resources hosted a Groundwater Management Program Update Workshop on September 20, 2017. Mr. Schafer attended the workshop and provided an overview of the regulations, schedule for compliance, review of the undesirable results, overview of the Coordination Agreement elements, identified the funding available under Proposition 1 for GSP development, a summary of GSA formations, identified DWR facilitation services available if requested by a Subbasin, and reviewed the Best Management Practices prepared by DWR.

Further, as a part of the workshop, DWR indicated a subbasin needed to coordinate with adjacent subbasins in addition to the GSAs within the subbasin. The representatives agreed to have Hydrogeologist Thomas Harder communicate with the adjacent subbasins hydrogeologists and coordinate groundwater flow models.

**Memorandum of Understanding (MOU)**

Attorney Jim Koontz reported that the Coordination Agreement MOU has been revised and a final agreement will be circulated for signature among the parties.

Attorney Jim Koontz further provided a copy of the final Fiscal Agent Agreement to allow LTRID to be the Fiscal Agent for the Tule Subbasin on behalf of all the Subbasin GSAs and submit the grant application on behalf of all the GSAs. The Fiscal Agent Agreement was signed and executed by all parties and returned to Mr. Koontz. A digital copy will be provided to each GSA.

Thomas Harder provided a proposal to assist in preparation of the Grant application and to assist in the preparation of the documents for the Coordination Agreement for a total of \$10,000. After discussion, Representative Matt Hurley moved to accept the proposal as presented. The motion was seconded by Representative Eric Limas and unanimously carried.

The representatives agreed to form a small subcommittee to work on drafting the seven components of the Coordination Agreement, which will be provided to the Technical Committee to review and recommend to each GSA Board for approval. A subcommittee was selected that included the technical consultants Thomas Harder, R.L. Schafer, and David De Groot along with the following GSA Representatives: Sean Geivet, Eric Limas, Matt Hurley, Bruce Howarth, and Dale Brogan. David De Groot stated he would send out an invite for the first meeting, to discuss the draft documents previously prepared and begin discussion on the remaining documents required to complete the Coordination Agreement.

**Tulare County Grant (Prop. 1)**

David De Groot reported that the first reimbursement payment from the Tulare County Grant has been received. Mr. De Groot also stated he would follow up to determine what additional work is needed to wrap up the items required under the grant agreement.

**Tule Subbasin Grant (Prop. 1)**

David De Groot presented the draft scope of work for the Tule Subbasin Proposition 1 Grant application being prepared, which included development of the Tule Subbasin Groundwater Flow Model, development of a groundwater monitoring network plan of shallow monitoring wells development of a land subsidence benchmark network with installation of extensometers, and development of LandsAT METRIC data for years 1991 – 2016 for the entire Tule Subbasin. After discussion, the GSA representatives agreed to continue preparation of the grant application with the proposed scope of work and suggested maximizing the available \$1.5 million, but if the budget for the scope exceeds the \$1.5 million, not to include as many monitoring wells at this time. The Grant application is due 13 November 2017 and a draft plan will be made available prior to submittal.

**Budget, Financial Report & Funding Status**

The final 2017 fiscal year budget comparison for the Tule Subbasin SGMA MOU Group as of 30 September 2017 was presented. Expenditures for the period, October 1, 2016 through September 30, 2017, were \$334,568 and 68.6% of the amended 2017 fiscal year budget of \$487,389.

A copy of the approved 2018 Fiscal Year Budget was provided to the GSA representatives, identifying a total budget of \$626,500.

A copy of the October 17, 2017 Financial Report was distributed to the representatives. The Report identified cash receipts of \$201,589.47 during October 2017, and a cash balance of \$201,690.57, but with outstanding bills of \$107,873.26, a net balance as of October 17, 2017 of \$93,817.31. The Fiscal Agent stated all outstanding bills will be paid prior to end of October 2017.

The Technical Advisory Committee agreed to schedule a follow up meeting November 15, 2017 at 2:00 pm in Tipton at the Lower Tule River Irrigation District office.

**Adjournment**

The Technical Advisory Committee meeting was adjourned at 3:12 p.m.

Respectfully Submitted:

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David De Groot - Secretary



## **Rschafer**

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**From:** Thomas Harder <tharder@thomashardercompany.com>  
**Sent:** Thursday, November 02, 2017 2:28 PM  
**To:** 'Eric Limas'  
**Cc:** Rschafer  
**Subject:** TH&Co October Invoice for Tule Subbasin MOU Group  
**Attachments:** TH&Co\_TuleSubbasinMOU\_Model\_Inv4.pdf

Dear Eric ,

Please find attached my October invoice (Invoice No. 4) for development of the groundwater flow model for the Tule Subbasin MOU Group.

If you have any questions, don't hesitate to contact me.

Tom

**Thomas Harder & Co.**  
Groundwater Consulting



(714) 779-3875

(714) 394-4449 (cell)

[www.thomashardercompany.com](http://www.thomashardercompany.com)

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November 1, 2017

DCTRA: Tule Subbasin MOU Group  
Attn: Mr. Eric Limas  
357 E. Olive Avenue  
Tipton, California 93272

**Re: Invoice No. 4 for Hydrogeological Consulting Services to Develop a Groundwater Flow Model for the Tule Subbasin MOU Group**

Dear Mr. Limas,

Attached is Invoice No. 4 for hydrogeological consulting services to develop a groundwater flow model of the Tule Subbasin in support of complying with the Sustainable Groundwater Management Act (SGMA). This work is being conducted per my Consulting Agreement with the Tule Subbasin MOU Group dated 16-Nov-16 and our scope of work and cost estimate dated 28-Jun-17.

The total balance due for this billing period is **\$28,345.00** as shown in the attached Table 1.

I appreciate the opportunity to provide consulting services to the Tule Subbasin MOU Group. If you have any questions, don't hesitate to contact me at (714) 779-3875.

Sincerely,

Thomas Harder, P.G., C.HG.  
Principal Hydrogeologist

cc: R.L. Schafer

Invoice No. 4  
 Hydrogeological Services - Groundwater Flow Model Development  
 Re: Tule Subbasin MOU Group

Terms: Per Contract Dated 16-Nov-16 and Scope of Work dated 28-Jun-17

Billing Period: 2-Oct-17 to 27-Oct-17

Task Description	Principal Hydro-geologist \$120/hr		Staff Hydro-geologist \$100/hr		Graphics \$85/hr		General \$65/hr		Total Labor this Invoice	Expenses this Invoice	Total Cost this Invoice	Budget	Spent to Date	Balance
	Hydro-geologist \$120/hr	Hydro-geologist \$100/hr	Hydro-geologist \$100/hr	Hydro-geologist \$100/hr	Graphics \$85/hr	General \$65/hr								
1 Supplemental Data Acquisition		1	4.75						\$595.00		\$595.00	\$ 10,160	\$9,960.00	\$200.00
2 Model Design and Construction	9.75	7.25	50.75					\$7,700.00	\$7,700.00		\$7,700.00	\$ 50,940	\$46,640.00	\$4,300.00
3 Input File Development	1.25		0.75					\$300.00	\$300.00		\$300.00	\$ 88,160	\$3,900.00	\$84,260.00
4 Model Calibration/Sensitivity								\$0.00	\$0.00		\$0.00	\$ 50,480	\$0.00	\$50,480.00
5 Analysis of Sustainable Yield Using the Model			0.75					\$75.00	\$75.00		\$75.00	\$ 46,080	\$75.00	\$46,005.00
6 Model Report								\$0.00	\$0.00		\$0.00	\$ 45,200	\$0.00	\$45,200.00
7 Project Management and Meetings	13.5							\$2,430.00	\$2,430.00	\$220.00	\$2,650.00	\$ 36,600	\$11,345.00	\$25,255.00
<b>Budget Amendment No. 1</b>														
GSA Specific Water Budgets	8.5	28.5	64.75					\$11,425.00	\$11,425.00		\$11,425.00	\$ 25,950	\$21,305.00	\$4,645.00

Budget	Spent to Date	Balance
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Task Description	Principal Hydro-geologist \$180/hr	Profess Hydro-geologist \$120/hr	Staff Hydro-geologist \$100/hr	Graphics \$15/hr	Clerical \$85/hr	Total Labor this Invoice	Expenses this Invoice	Total Cost this Invoice
Budget Amendment No. 2								
Support for Coordination Agreement and Grant Funding Application	15.5	3	24.5			\$5,600.00		\$5,600.00
<b>Total This Invoice</b>						<b>\$28,125.00</b>	<b>\$220.00</b>	<b>\$28,345.00</b>
<b>Total Authorized Budget</b>						<b>\$ 359,830</b>	<b>\$ 3,740</b>	<b>\$ 363,570</b>
Total Previously Billed						\$ 70,040.00	\$ 440.00	\$ 70,480.00
Total Billed to Date						\$ 98,165.00	\$ 660.00	\$ 98,825.00
<b>Remaining Balance</b>						<b>\$ 261,665.00</b>	<b>\$ 3,080.00</b>	<b>\$ 264,745.00</b>

\$ 10,000      \$5,600.00      \$4,400.00

