

REGULAR MEETING AGENDA

January 14, 2021

2:00 PM

<https://us02web.zoom.us/j/84120892779?pwd=TUpKL2hyUjRzOEZpNGVPaTIWOUc2Zz09>

Join Zoom Meeting

Meeting ID: 841 2089 2779

Dial in: +1 669 900 6833

Passcode: 331945

IMPORTANT NOTICE: Due to the ongoing COVID-19 Crisis, and as authorized by the Governor's Executive Order N-29-20, Board Members will participate in this meeting offsite via conference call. Members of the public who wish to provide comment or observe the meeting may join the conference call.

Bob Kelley, Stevinson Water District

Chair

Nic Marchini, Western White Area Representative

Vice Chair

George Park, Lone Tree Mutual Water Company
Lloyd Pareira, County of Merced

Kole Upton, Le Grand-Athlone Water District
Michael Gallo, Eastern White Area Representative

1. CALL TO ORDER/ROLL CALL

2. PUBLIC COMMENT PERIOD

Public opportunity to speak on any matter of public interest within the Board's jurisdiction including items on the Board's agenda. Testimony limited to three minutes per person.

3. APPROVAL OF MINUTES

Action to approve the meeting minutes from the Governing Board meeting on December 10, 2020.

4. SUSTAINABILITY ZONES DISCUSSION

Discussion item to review concepts for sustainability zones with in the Merced Subbasin GSA, as proposed by Provost and Pritchard. Potential action to extend the funding and term of the task order with Provost and Pritchard Consulting Group.

5. EVAPOTRANSPIRATION DATA MAPPING

Discussion of evapotranspiration mapping and action to consider a proposal from Formation Environmental to purchase actual evapotranspiration data tabulated monthly and annually for the timespan from January 1, 2010 through December 31, 2018.

6. STAFF REPORT

7. BOARD REPORTS

8. NEXT REGULAR MEETING

9. ADJOURNMENT

Alternate formats of this agenda will be made available upon request by qualified individuals with disabilities. Appropriate interpretive services for this meeting will be provided if feasible upon advance request by qualified individuals with disabilities. Please contact the Secretary at (209) 385-7654 for assistance and allow sufficient time to process and respond to your request. Copies of agendas and minutes will be available at the Merced County Community and Economic Development Department and at www.countyofmerced.com/MercedSubbasinGSA.

**MERCED SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY JOINT POWERS
AUTHORITY (JPA)
GOVERNING BOARD**

MINUTES FOR MEETING OF DECEMBER 10, 2020

The agenda, original minutes, and all supporting documentation (for reference purposes only) of the Merced Subbasin Groundwater Sustainability Agency Governing Board meeting of December 10, 2020 are available online at www.countyofmerced.com/MercedSubbasinGSA.

I. CALL MEETING TO ORDER

The special public meeting of the Merced Subbasin Groundwater Sustainability Agency Joint Powers Authority Governing Board was called to order at 2:04 p.m., on December 10, 2020, via conference call due to the ongoing COVID-10 crisis and as authorized by the Governor's Executive Order N-29-20.

II. ROLL CALL OF BOARD MEMBERS

Board Members Present:

Bob Kelley	Chairman (Stevinson Water District)
Nic Marchini	Vice-Chair (Western White Area)
Kole Upton	(Le Grand-Athlone Water District)
Michael Gallo	(Eastern White Area Representative)
George Park	(Lone Tree Mutual Water Co.)
Supervisor Lloyd Pareira	(Merced County) (In Person)

Board Members absent: None

Staff Present:

Mark Hendrickson	Secretary
Lacey McBride	Water Resources Coordinator
Kristin McHaney	Recording Secretary

III. PUBLIC COMMENT PERIOD

Diana Westmoreland with Senator Anna Caballero's office, introduced herself and provided contact information.

Public Comment Closed.

IV. APPROVAL OF MINUTES

Action to approve the meeting minutes from the Governing Board meeting on October 8, 2020.

No public comment.

MOTION: M/S GALLO – PAREIRA, AND CARRIED BY A VOTE OF 5 – 0, THE BOARD APPROVES THE MINUTES FROM THE OCTOBER 8, 2020 MEETING.

V. AMENDMENT #3 TO WOODARD AND CURRAN CONTRACT

Action to approve and authorize the Chairman to sign a third amendment to the contract with Woodard and Curran Inc., authorizing Woodard and Curran to prepare a GSP Data Gaps Plan and develop a remote sensing decision support tool, develop a Water Year 2020 Annual Report, and prepare a Proposition 68 Implementation Round 1 Grant Funding application.

Lacey McBride provided a summary of the third amendment. Mrs. McBride explained that the third amendment is to Prepare for a Proposition 68 Planning Grant Work Plan. Earlier in 2020, the Merced Subbasin received a grant awarding funds for a data gaps plan and development of a remote sensing tool. The amendment also includes an Annual Water Year 2020 Report, this is the second annual report, is a requirement of the Sustainable Groundwater Act and is due on January 1, 2021. Report describes current groundwater conditions and monitoring results. The cost of preparing the Water Year Report is \$84,768.00. The cost is shared by the three GSA in the Subbasin according to the coordination agreement. Lastly, the amendment includes preparing a grant application for a program called the Southern Merced Subbasin Groundwater Recharge Program. The grant solicitation program package was released on November 9, 2020 with a deadline of January 8, 2021 to complete application package. Only one Subbasin can submit an application, so the three GSAs must work together to submit an application. Two components included in the application are the Le Grand-Athlone Water District Intertie Project Phase 1 and the MID El Nido Conveyance Improvements project. The coordination committee recommended the cost of the grant application be shared by the GSAs according to project proportion. The requested funding is approximately \$5 million. The Le Grand-Athlone Water District project is requesting 82% of that funding (\$3.6 million). The cost to prepare the application is \$49,781.00.

Bob Kelley asked about the location of the recharge basin. Mrs. McBride answered that the recharge basin is located in the jurisdiction of the Le Grand-Athlone Water District. George Park asked about cost of the El Nido Conveyance Improvement Project. Mrs. McBride answered that the cost would be approximately \$750,000. MID would be contributing to that cost. Mrs. McBride informed the Board that the Coordination Committee approved the projects on December 1, 2020.

Eric Swenson, District Engineer for Marquin Water District, submitted written comments. Stated he would like to receive a written response to his written comments.

Gino Pedretti, Sandy Mush Mutal Water Company, stated that both projects included in the grant application would be very helpful.

MOTION: M/S MARCHINI – GALLO, AND CARRIED BY A VOTE OF 5 – 0, THE BOARD APPROVES AND AUTHORIZES THE CHAIRMAN TO SIGN A THIRD AMENDMENT TO THE CONTRACT WITH WOODWARD AND CURRAN INC., AUTHORIZING WOODWARD AND CURRAN TO PREPARE A GSP DATA GAPS PLAN AND DEVELOP A REMOTE SENSING DECISION SUPPORT TOOL, DEVELOP A WATER YEAR 2020 ANNUAL REPORT, AND PREPARE A PROPOSITION 68 IMPLEMENTATION ROUND 1 GRANT FUNDING APPLICATION.

IV. RESOLUTION AUTHORIZING THE SUBMISSION OF A SUSTAINABLE GROUNDWATER MANAGEMENT IMPLEMENTATION GRANT APPLICATION

Adopt a resolution authorizing the Merced Subbasin GSA, in coordination with MIUGSA and Turner Island GSA-1, to apply for a Sustainable Groundwater Management Implementation – Round 1 grant and enter into a grant agreement with the California Department of Water Resources.

Mrs. McBride explains that this resolution is required as part of the grant application. Resolution authorizes GSA to apply for funding and MID to administer and enter into agreement with DWR.

No Public Comment.

MOTION: M/S MARCHINI – GALLO, AND CARRIED BY A VOTE OF 5 – 0, THE BOARD APPROVES ADOPTING A RESOLUTION AUTHORIZING THE MERCED SUBBASIN GSA, IN COORDINATION WITH MIUGSA AND TURNER ISLAND GSA-1, TO APPLY FOR A SUSTAINABLE GROUNDWATER MANAGEMENT IMPLEMENTATION – ROUND 1 GRANT AND ENTER INTO A GRANT AGREEMENT WITH THE CALIFORNIA DEPARTMENT OF WATER RESOURCES.

V. BOARD REPORTS

Bob Kelley gave brief report to Board that the Technical and Advisory Committees met for a discussion with Sustainability Concepts. The Sustainable Zone Mapping will be discussed at January Meeting.

Lloyd Pareira wish all a Merry Christmas and praised Board members and staff for their hard work.

VI. NEXT REGULAR MEETING

Next meeting will be held on January 14, 2020.

VII. ADJOURNMENT

There being no further business, the meeting adjourned at 2:45 p.m.

DRAFT

BOARD ACTION ITEM

TO: MEMBERS OF MERCED SUBBASIN GSA GOVERNING BOARD
FROM: MARK HENDRICKSON, SECRETARY
DATE: JANUARY 14, 2021

SUBJECT: SUSTAINABILITY ZONE DISCUSSION

SUMMARY:

In September 2020, the Merced Subbasin GSA (MSGSA) Governing Board approved a contract with Provost and Pritchard Consulting Group to investigate and provide options for establishing sustainability zones within the GSA. The MSGSA would be able to utilize these Sustainability Zones for projects and management actions necessary to implement the Groundwater Sustainability Plan. Sustainability Zones will recognize the unique areas in the broad and disperse MSGSA boundary.

In December 2020, a first draft of attributes and considerations for Sustainability Zones was shared with the Technical and Advisory Committees. Feedback from the discussion with the Technical and Advisory Committees was considered in the Sustainability Zone options presented to the Governing Board.

This discussion item is to review the analysis from Provost and Pritchard Consulting Group and for the Governing Board to provide feedback to staff on Sustainability Zones. This completes the task order for Provost and Pritchard Consulting Group to develop options for Sustainability Zones. If the Board requests additional effort from Provost and Pritchard on Sustainability Zone options, the task order needs to be amended with additional funding and an extension of the term, which ends January 31, 2021.

REQUEST/RECOMMENDATION/ACTION NEEDED:

Discussion item to review concepts for sustainability zones within the Merced Subbasin GSA, as proposed by Provost and Pritchard. Potential action to extend the funding and term of the task order with Provost and Pritchard Consulting Group.

BOARD ACTION ITEM

TO: MEMBERS OF MERCED SUBBASIN GSA GOVERNING BOARD
FROM: MARK HENDRICKSON, SECRETARY
DATE: JANUARY 14, 2021

SUBJECT: EVAPOTRANSPIRATION DATA MAPPING

SUMMARY:

Greg Young of Tully and Young will lead a discussion on evapotranspiration mapping options for the GSA and examples of how the GSA may use evapotranspiration mapping to inform policy decisions and education during GSP implementation.

Staff is recommending the consideration of a proposal from Formation Environmental to purchase actual evapotranspiration data tabulated monthly and annually for the timespan from January 1, 2010 through December 31, 2018.

REQUEST/RECOMMENDATION/ACTION NEEDED:

Discussion of evapotranspiration mapping and action to consider a proposal from Formation Environmental to purchase actual evapotranspiration data tabulated monthly and annually for the timespan from January 1, 2010 through December 31, 2018.



Actual Evapotranspiration (CaETa) Dataset Cost Proposal

At the request of the Merced Subbasin GSA, Formation is providing this cost proposal for purchase and use of Actual Evapotranspiration (ETa) from Formation’s proprietary California Actual Evapotranspiration (CaETa) Mapping Program. The following sections briefly describe the CaETa dataset, the cost proposal to license the data consisting of the entire geographic extent of the deliverable area (Figure 1) for 2010 through 2018, as well as applicable terms and conditions. The cost for the data is provided in Section 1.1 of this proposal.

Data will be provided two weeks after contract execution by the Merced Subbasin GSA in the formats specified in Tables 1 and 2.

1.0 California Actual Evapotranspiration (CaETa)

The CaETa Mapping Program is a robust, one-of-a-kind framework for generating ETa data. CaETa is a daily, 30-meter, statewide evapotranspiration dataset for California developed using an innovative and proprietary framework utilizing satellite imagery and a surface energy balance algorithm. This dataset has been successfully validated using on-the-ground measurements collected by CA Department of Water Resources, universities, Ameriflux Stations, and other sources. CaETa is currently being used in various studies across the state. This includes agricultural applications assessing the field-scale variability using an ETa-distribution uniformity index, and site-specific refinement of crop coefficients. Water management and planning applications at the water district scale include riparian and groundwater dependent vegetation consumptive use, development of inputs to groundwater basin models, and estimating ET of applied water. The use of CaETa, from supporting farmers to regional water balance studies, are improving water resource management at every scale.

1.1 Data Products / Deliverables

Based upon the extent of the boundary shapefiles (provided in shapefile format by Merced Subbasin GSA), Formation will tabulate monthly and annual ETa depths from the CaETa dataset. The included time span is January 1, 2010 through December 31, 2018. Two GIS layers will be included in the tabulation: (1) the subbasin (Figure 1) boundaries (Formation developed as directed by Merced Subbasin GSA), and (2) all crop boundaries that intersect the Subbasin boundaries (using DWR’s 2016 Statewide Crop Mapping GIS dataset as the source). Note as of the date of preparation of this proposal not all boundary shapefiles were available. Formation will use all boundary files, estimated to be an additional 10-12, in the preparation of the data set. The cost estimate assumes no more than 12 layers to prepare.

Table 1: Deliverables

Deliverables	Description
1	GIS support to: <ul style="list-style-type: none"> Create shapefile using Merced Subbasin GSA (Figure 1) supplied layers, and DWR’s 2016 Crop Layer (crop boundary). Figure 1 only shows the Merced Subbasin GSA; however, this task assumes that an additional 10-12 boundary



	files will be made available by the Merced Subbasin GSA to create the GIS layers.
2	GIS support to: <ul style="list-style-type: none"> • Extract monthly and annual depths (inches) for the subbasin and crop boundary layers. This is performed with a zonal statistics function which will append monthly and annual totals to the attributes associated with each feature. The attributes will also be exported into Excel files. • Extract annual ETa raster dataset in geotiff format.
3	Digital files including: <ul style="list-style-type: none"> • Entity boundary shapefile with monthly and annual total ETa depth attributes. • Crop boundary shapefile with monthly and annual total ETa depth attributes. • Excel files exported from the subbasin and crop boundary layer's attributes (Table 2). • Raster images of annual ETa depths, covering the extent of the boundaries.
	Cost for deliverables in Table 1: \$6,000.00

Table 2: Example deliverable of Excel file structure showing boundary and cropping information and ETa values for January to April 2010*.

A	B	C	D	E	F	G	H	I
FEID	Acres	County	Crop2016	GSA_Name	January-10	February-10	March-10	April-10
128489	32.2	Madera	Alfalfa and Alfalfa Mixtures	Chowchilla Water District GSA	0.3911	1.1017	3.7449	4.0574
130804	47.9	Madera	Alfalfa and Alfalfa Mixtures	Chowchilla Water District GSA	1.1748	1.2136	3.8250	3.9555
129970	48.2	Madera	Alfalfa and Alfalfa Mixtures	Chowchilla Water District GSA	1.1618	1.1552	3.7655	3.9135

*Columns F through I show the monthly ET in depth (inches).

1.2 Data Distribution / Conditions

Merced Subbasin GSA can freely distribute the monthly, ETa data (Data) for public use under the following terms and conditions.

- a. Formation shall provide to Merced Subbasin GSA (a) one copy of the Data and (b) Formation does not undertake to provide technical support or a data interface to distribute the Data, except for the activities listed in Table 1 of this agreement.
- b. Formation grants to Merced Subbasin GSA a non-exclusive, royalty-free copy of the Data to access, interpret, analyze, and publicly distribute on its data portal and in connection with operation of Merced Subbasin GSA. Formation extends the foregoing only to the extent necessary to provide access to the Data generated from the CalETa mapping program. Formation retains all rights not expressly granted herein.
- c. Merced Subbasin GSA releases Formation from any and all claims arising from access, use, interpretation, or analysis of the Data.



- d. In no event shall Formation, nor anybody having contributed to the development and/or production and/or delivery of the Data, be liable for any indirect, consequential, incidental, special, punitive, or exemplary damages.

ACKNOWLEDGEMENTS

- e. Merced Subbasin GSA acknowledges that Formation provides the Data on an as-is basis.
- f. Merced Subbasin GSA acknowledges that estimation of ETa through remote sensing imagery, surface energy balance equation, and the CalETa mapping program is not definitive and does not establish legal rights.
- g. Merced Subbasin GSA shall acknowledge and display Formation copyright notice in the metadata. The Formation copyright notice may take either of the following two forms: (a) "Copyright 2021 [Formation Environmental]" or (b) "© 2021 [Formation Environmental]".
- h. Merced Subbasin GSA acknowledges that, as among the parties to this Agreement, Formation is sole owner of and possesses all right, title, and interest in all copyrights in the Data and the CalETa mapping program.
- i. Formation acknowledges that it has no actual knowledge that should reasonably cause Formation to conclude that any particular component or components of the Data or the compilation of the Data infringes the rights of any third party.

Signatures

Formation Environmental, LLC

Merced Subbasin GSA

By: _____

By: _____

Date: _____

Date: _____

Name: _____

Name: _____

Title: _____

Title: _____



FIGURE 1. MAP OF SELECT GSAs IN THE MERCED SUBBASIN GSA.

