### MID-KAWEAH GROUNDWATER SUSTAINABILITY AGENCY BOARD OF DIRECTORS MEETING MINUTES

August 10, 2021 – 3:00 p.m.

This Committee Meeting was held via teleconference with no physical location due to the COVID-19 Pandemic and the Governors Executive Order N-29-20.

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

MEMBERS ABSENT: None

GSA MEMBER STAFF PRESENT: Aaron Fukuda, Kathi Artis, James Fisher, Trisha Whitfield, Valerie Kincaid, Leslie Caviglia

PUBLIC ATTENDEES: Andrew Hart, Stacie Ann Silva, Rhett Anderson, Tessa Hall, Tim Leo, Matt Klinchuch, Mark Larsen, Ben Curti, Derrik Williams, Rob Hunt, Geoff Vanden Heuvel, Blake Wilbur, Johnny Gailey, Tim Mendonca, Hylon Kaufmann, Leland (last name unknown), Eric Osterling

- 1. CALL TO REGULAR ORDER Chair Martin called the meeting to order at 3:00 p.m.
- 2. PUBLIC COMMENT

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

#### 3. GENERAL BUSINESS

- a. Approval of Minutes of Regular Meeting on June 8, 2021\*. By a motion of Director Collins, seconded by Director Bixler and carried by all directors present the minutes of the June 8, 2021 Regular Meeting were approved
- b. Financial Reports\*
  - *i. Financial Statements Year-to-Date* K. Artis presented the financial statements and the 2020 fiscal year (July 1 2020 – June 30 2021) summary. By a motion of Director Nelson, seconded by Director Collins, and carried by all directors present, the financial statement as presented and were approved.
- c. Legal Counsel Report Ms. Kincaid provided a report beginning with the State Water Resources Control Board (SWRCB) will host a meeting on Aug 17 to decide surface water curtailments on the Scott and Shasta Rivers. Ms. Kincaid reported that the SWRCB already implemented curtailments to both the Sacramento and San Joaquin Rivers on August 3<sup>rd</sup> (surface water only), and this curtailment will remain active for 12 months. Next, Ms. Kincaid reported that the Antelope Valley litigations regarding dormant groundwater users has been finalized on appeal. The court approved and upheld an adjudication, making it more difficult for "dormant groundwater users" (i.e. have an allocation but are not using it) to retain their full allocation. Dormant groundwater users may not receive their full overlying allocation in an adjudication because they are not putting it to beneficial use. However, their overlying allocation can never be cut off completely.

#### d. MKGSA Advisory Committee Update

Mr.Wilbur (MKGSA Advisory Committee chair) summarized the August MKGSA Advisory Committee meeting. Two open seats still remain for the Advisory committee: one agriculture seat and one DAC seat. Much of the discussions focused on the new water allocation implementation and policies. The Advisory Committee typically meets quarterly, but will likely meet more frequently for the rest of the year to finalize the groundwater allocation.

#### e. MKGSA GSP Review Status

Mr. Fukuda reported that M&A's technical memo on the 4 GSP reviews completed by DWR is anticipated in the coming months. However, the allocation is taking priority currently, so the final draft report is not anticipated until late-fall 2021.

#### f. MKGSA GSP Implementation Workplan

- Consideration of Grant Agreement Between the State of California (Department of i. Water Resources) and Mid-Kaweah Groundwater Sustainability Agency – Agreement Number 4600014160 Sustainable Groundwater Management (SGM) Grant\* - Mr. Fukuda provided a report on the project and noted first that the grant was a 3-year, \$3.8M grant from the DWR Prop 68 grant opportunity. Like all other DWR grants, this includes many contingencies and a post-grant performance grade from DWR on how the MKGSA managed the grant, so considerable administrative effort will be dedicated to ensuring we remain in good standing for future grants. Mr. Klinchuch of Provost and Pritchard explained the local cost share will be greater the 5% originally proposed, because there is considerable work that must be done outside the scope of the grant proposal. With all work considered, the local cost share is anticipated to be 26%. In the long term, this grant should improve water quality on the north end of Okieville, a DAC. The south end has good water quality because Basin #8 is adjacent and up-gradient, but the north end does not meet water quality standards yet. The Okieville Recharge Basin was strategically sited to improve water quality to the north end (longer term). By a motion of Director, seconded by Director Bixler and carried by all directors present, the Grant Agreement Between the State of California (Department of Water Resources) and Mid-Kaweah Groundwater Sustainability Agency - Agreement Number 4600014160 Sustainable Groundwater Management (SGM) Grant was approved.
- ii. Representative Monitoring Network: Waukena School District Monitoring Well Mr. Fukuda reported that Jessi Snyder and Paul Boyer of Self-Help Enterprises (SHE) prevented a triple-nested deep monitoring well from being filled-in and retired adjacent to the Waukena School District. The new Waukena School Superintendent agreed to let Tulare Irrigation District (TID) use them as permanent monitoring well. Chair Martin indicated that he contacted Buena Vista School about recently drilled monitoring wells, but those were drilled through for production wells and no longer usable for monitoring.

- iii. Kaweah Subbasin MODFLOW Modeling Update Mr. Fukuda reported that M&A is refining a model that disaggregates and calculates the water budget according the source, as opposed to the modeling GEI/GSI completed for the GSP that aggregated all water inflows. This updated, and more nuanced model will inform future water management decisions, such as the water accounting framework. The model is scheduled to be completed by Q3 of 2022 and recalibrated following Stanford's addition of a subsidence module to the hydrogeologically coupled model (HCM)
- *MKGSA Projects and Management Actions List and Adoption Process Update* Mr. Fisher provided an update that a rough draft of an application and process to formally append projects or management actions into the groundwater sustainability plan (GSP) between DWR's 5-year updates. The application and process proposal will be prepared before the next Board Meeting for review.

#### g. Kaweah Subbasin Coordination

- i. *Kaweah Subbasin Management Committee* No updates. Regular meeting scheduled for August 18<sup>th</sup>.
- ii. *Prop 68 Planning Grant* This grant is managed by the EKGSA. Fresno State University is continuing to evaluate accurate and cost-effective well metering options for the Kaweah Subbasin.
- iii. *Prop 68 Implementation Grant* The Prop 68 Implementation Grant was approved and will be provided to DWR.
- Water Marketing Strategy Grant Stantec has been officially awarded the Water Marketing Grant. A standout quality in their proposal was their ability to aggressively condense their original proposed schedule to be operational in 2022, in time to be utilized for the first growing season with an allocation. This condensed schedule came with an additional cost, but there is a DWR facilitation services grant that Mr. Fukuda will be submitting to offset theincreased cost. Chair Martin is concerned about the acceleration of the Water Marketing Strategy, as this could create opportunities for others to maliciously exploit the market. However, Chair Martin still supports the market. Mr. Fukuda responded that rules and guidelines governing the market can be changed annually by the MKGSA if unintended consequences need to be addressed.
- v. *Kaweah Water Foundation (CVSALTS)* no significant updates
- vi. *Kaweah Interbasin Coordination* The 3 GSA's are working to get the region to team with Stanford to model subsidence across the region.
- h. San Joaquin Valley Collaborative Action Plan Update Mr. Fukuda represents the MKGSA on this action plan. This collaborative team of agriculture, Environmental, and DACs will focus on how to draft solutions on water problems at a high level in the Central Valley. Most notably from this collaboratively developed solution package, it was agreed that agriculture landscape should be reduced, but criteria of when and how much land should be reduced, which will be informed by quantity of water deficiency. As the MKGSA representative in this group, Mr. Fukuda is stressing solutions decreasing demand must be balanced with solutions increased water supply, as demand reductions alone would be highly detrimental to the Central Valley economy. The collaborative solution package being prepared has a very aggressive timeline, due Fall 2021.

# 4. STAFF UPDATE, DISCUSSION AND RECEIVE DIRECTION, IF NECESSARY, COVID-19

Mr. Fukuda polled the board, and Zoom meetings will continue to be the most prudent option for future meetings for the foreseeable future.

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

Chair Martin called for future agenda items or other topics for the board. None were forthcoming.

#### 6. CLOSED SESSION

Closed session began at 4:32pm. Upon returning from Closed Session, Ms. Kincaid reported that there we no actions taken in Closed Session.

#### 7. ADJOURNMENT:

Martin adjourned the meeting at 6:07 pm, with the next regular meeting scheduled for September 14, 2021.

Attes	t:
GSA	Board Secretary

Advisory Committee Chair

**Agenda Item 3.f.i.:** Consideration of MKGSA Request for Proposals – Groundwater Sustainability Plan: Projects and Management Actions and the MKGSA Projects and Management Actions List

Report Author: Aaron Fukuda and James Fisher

#### Staff Recommendation:

It is recommended that the Board approve the MKGSA Request for Proposals – Groundwater Sustainability Plan: Projects and Management Actions and the MKGSA Projects and Management Actions List.

#### Background Discussion:

During the 2020 Proposition 68 Implementation Grant application process, the Deparement of Water Resources (DWR) placed a requirement that projects must be in the GSA's groundwater sustainability plan (GSP) in order to be funded by DWR via the Sustainability Groundwater Management (SGM) program. Upon discovering this requirement the MKGSA reached out to DWR to request clarification regarding projects developed after the submission of the GSP in 2020, and their availability for funding. DWR subsequently established meetings with the MKGSA and the GKGSA to discuss what local options could provide flexibility.

The MKGSA Request for Proposals (RFP) – Projects and Management Actions document outlines a DWR-approved process, developed by MKGSA staff, allowing entities to submit projects and management actions for formal adoption into the MKGSA GSP on a as-needed basis. Applicants can follow the instructions included in the RFP, which provides a template for submitting projects to the MKGSA Advisory Committee for review and consideration. If the MKGSA Advisory Committee approves of a proposed project or management action, their recommendation would be brought to the MKGSA Board of Directors for review. If the MKGSA Board of Directors approves the project or management action, it will be adopted to the MKGSA groundwater sustainability plan and included in the MKGSA Projects and Management Actions list.

The MKGSA Projects and Management Actions List (PMA List) will be a dynamic list that can be pursued by the MKGSA and available for grant funding, based upon availability. The PMA List will be updated monthly and available on the MKGSA website.

#### **Recommended Motion:**

I move to approve the *MKGSA Request for Proposals – Groundwater Sustainability Plan: Projects and Management Actions* document and the *MKGSA Projects and Management Actions List.* 

#### Attachments:

• MKGSA Request for Proposals – Groundwater Sustainability Plan: Projects and Management Actions and the MKGSA Projects and Management Actions List

# Mid-Kaweah Groundwater Sustainability Agency Request for Proposals

# *Groundwater Sustainability Plan: Projects and Management Actions*

Prepared by: Mid-Kaweah Groundwater Sustainability Agency



August 2021

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# 1. Introduction

## 1.1 Purpose of RFP

The purpose of this Request for Proposals (RFP) is to solicit additional projects or management actions to be formally added to the Mid-Kaweah Groundwater Sustainability Agency (MKGSA) Groundwater Sustainability Plan (GSP). The need to formalize these projects and management actions is important for grant funding opportunities contingent on projects and management actions required to be contained in the GSP. Several of the largest funding opportunities for groundwater sustainability, such as those offered by the California Department of Water Resources' Proposition 68 [1], require projects to be in the Groundwater Sustainability Plan (GSP) for consideration. This is problematic, as GSP's are only updated every five years, which would exclude funding for sound water resource projects that are more time sensitive and developed between 5-year updates. Therefore, the MKGSA has developed this RFP as a process to formalize projects and management actions on an ongoing basis such that they can be considered projects and management actions of the MKGSA GSP and further the goal of achieving groundwater sustainability

The decision of when, and how, to approve additional Project and Management Actions (PMAs) is a local decision for local agencies to determine. The California Department of Water Resources recognizes a PMA part of the GSP once it is included in the SGMA annual report [2]

RFPs are now being accepted for any PMAs that further the MKGSA's mission to achieve groundwater sustainability, secure affordable water to avoid untimely agricultural land retirement, satisfy the growing municipal water demands, and more efficiently utilize existing groundwater supplies. Any PMAs that acquire, store, manage or monitor water more efficiently within the Kaweah Subbasin, and specifically within the MKGSA will be considered. Proposals may be submitted by the public, stakeholders, agencies, or anyone with overlying interests in MKGSA water resources. Ideally, proposals will be well developed with a timeline and budget to achieve positive, quantifiable results. The MKGSA will also consider planning or pilot projects with limited development, provided all materials requested within this RFP are sufficiently detailed for full consideration. There may be significant delays to process proposals lacking the required information in this RFP after the initial submittal.

### **1.2 Background**

The Mid-Kaweah Groundwater Sustainability Agency (MKGSA) is one of three GSAs in the critically over-drafted Kaweah Subbasin, cumulatively comprising 23% of the subbasin (Figure 1). The MKGSA is comprised of 104,120 gross acres within Tulare County, primarily agricultural, with 77,129 of those acres are irrigated as of July 2021 (67,531 acres reside in TID with access to surface water) [3].



The MKGSA was formed in September 2015 using a Joint Powers Authority (JPA) Agreement between the City of Visalia, the City of Tulare, and the Tulare Irrigation District. This agreement grants the MKGSA authority to do all acts necessary to meet the 2014 Sustainable Groundwater Management Act (SGMA) requirements. Under SGMA, the MKGSA is responsible for achieving groundwater sustainability by 2040 to prevent the following undesirable effects: (1) lowered groundwater levels (2) reduced groundwater storage (3) land subsidence (4) degraded water quality (5) and depletion of interconnected surface water.

In January 2020, the MKGSA submitted their Groundwater Sustainability Plan (GSP) to the Department of Water Resources [4]. In Chapter 7 of the MKGSA GSP is a list and description of projects and management actions proposed to achieve groundwater sustainability by 2040. In just 13 of the 18 GSP projects mentioned, the MKGSA could store an additional cumulative 2.1 million acre-feet (MAF) of groundwater for approximately \$21 million over the next 50 years (including annual maintenance costs). The other 5 of 18 GSP projects are not developed enough to estimate the cost and water storage capability accurately yet.



*Figure 1. Study area of the Kaweah Sub-basin, map edited from the 2019 MKGSA GSP* [4]. *The MKGSA (blue) comprises the City of Tulare, the City of Visalia, and Tulare Irrigation District* 



# 2. Award Information

## 2.1 Adoption to the PMA list

The MKGSA will not be issuing funding via this RFP. Instead, awardees will be formally adopted as a PMA in the MKGSA GSP, and added to the GSP Project and Management Actions (PMAs) list, a prerequisite for most major State and Federal grants supporting SGMA. Once added, the MKGSA will continuously search for grants that match PMA items to fund those projects on a rolling basis.

## 2.2 Eligibility

Eligible applicants must be a state/federal government, tribe, irrigation district, water district, institutions of higher education, or any local stakeholder capable of carrying out projects or management actions. Eligible projects must help mitigate at least one of the five possible 'undesirable results' as defined by SGMA [5]–[7]: (1) lowered groundwater levels (2) reduced groundwater storage (3) land subsidence (4) degraded water quality (5) and depletion of interconnected surface water.

Innovative and experimental projects and management actions are highly encouraged and welcome (including pilot projects). More traditional examples include agricultural managed aquifer recharge strategies, construction of ponds or reservoirs, installation of vadose zone injection wells, siting and construction of new recharge basins, or new methods or tools to manage water more efficiently.

# 3. Projects and management actions (PMAs)

Chapter 7 of the Mid-Kaweah Groundwater Sustainability Agency (MKGSA) Groundwater Sustainability Plan (GSP) is the blueprint for how groundwater sustainability will be achieved in the MKGSA. It includes a list of projects that were determined to be economically feasible in 2019 and would be actively pursued by the MKGSA in pursuit of groundwater sustainability. As of August 2021, the most up-to-date MKGSA Projects and Management Actions List (MKGSA PMA List) can be found in Attachments A & B, and can be downloaded at *midkaweah.org*.

*Projects* are generally infrastructure-related items pursued to increase surface water supplies, increase groundwater supplies, or better manage surface or groundwater. Projects include constructing or installing fixed assets that provide the water (surface or groundwater) benefits. Generally, Projects are designed and built for a specific lifespan, which can be upwards of 70 to 100 years. Examples of Projects includes recharge basins, new canals, ditches, and pipelines to deliver surface water, and surface water reservoirs.

*Management Actions* are those items that are activities/actions that entities or individuals take to increase or better manage water supplies. Management Actions do not necessarily include the construction of any facilities, however they could consist of some infrastructure. An example of a Management Action would be the development of a groundwater marketing strategy to allow landowners to trade and sell groundwater pumping credits.



### 3.1 MKGSA Projects and Management Actions List

In the development of the MKGSA GSP, the MKGSA identified several Projects and Management Actions that were either being developed or planned that would help the MKGSA achieve groundwater sustainability by 2040. A description of each of the Projects and Management Actions is included in Chapter 7 of the MGKSA GSP. To better assist in achieving groundwater sustainability, the MKGSA Board has adopted this RFP process to incorporate new Projects and Management Actions into the GSP. Projects and Management Actions included in the 2020 MKGSA GSP Chapter 7 have been incorporated into the MKGSA Projects and Management Actions List (MKGSA PMA List), which is attached as Attachment A.

This RFP allows for other agencies, organizations, or individual to seek approval by the MKGSA Board for inclusion in the MKGSA PMA List. The MKGSA PMA will be considered incorporated as a living list within the MKGSA GSP. The public will have access to the MKGSA PMA via request or on the MKGSA website.

# 4. Application Submittal

## 4.1 Application Submittal Directions

The standard method to submit a proposal is electronically via email (see below for email address used for submission of application). If you are unable to submit a proposal electronically, you may also submit a hard copy application the physical address listed below. Regardless of the delivery vehicle, a confirmation email will be sent within three days of receipt of the application by the MKGSA. Any questions regarding your proposal may be directed to the MKGSA Interim General Manager, Aaron Fukuda.

Address: Mid-Kaweah Groundwater Sustainability Agency

Attn. Aaron Fukuda 6826 Avenue 240 Tulare, CA 93274

Email: <u>midkaweah@gmail.com</u> Telephone: 559.686.3425

## 4.2 Submission Deadline

There are no deadlines. Proposal will be accepted on a rolling basis.



# 5. Application content and structure

It is highly recommended proposals structure their document and table of contents as described below, to ensure all content necessary for a complete proposal are included (see §5.1 - §5.6). The total length of the document shall not exceed 15 pages (12 point font, 8  $\frac{1}{2}$  x 11 paper, with margins no less than 0.5").

- 1. Title page & table of contents
- 2. Qualifications
- 3. Executive summary
  - 3.1. Introduction
  - 3.2. Water supply
  - 3.3. Project location
  - 3.4. Project description
  - 3.5. Expected benefits and benefactors
- 4. Permitting and regulatory compliance
- 5. Project Schedule
- 6. Project budget

## 5.1 Title page & table of contents

Draft a descriptive title with the names and contact information of the Project Manager submitting the proposal and the entity they represent, including: physical address, email address, and phone number. Include all major headings with page numbers in the table of contents. Headings of the proposal should match those in §5.1.

## **5.2 Qualifications**

Proposals need to include the lead implementing organization for this Project or Management Action, and a description of how this organization possesses the legal and technical framework necessary to lead this effort. Please provide at least one specific example of relevant experience completing a task akin to the Project or Management Action proposed.

### 5.3 Executive Summary

The executive summary shall be titled according to the project name and be two paragraphs. The first paragraph needs to describe the proposed project and anticipated benefits. *The first paragraph must also include the amortized cost per acre-foot of the project (estimates are acceptable), and anticipated average*<sup>1</sup> *annual water benefit.* The second paragraph must include the methods to complete the project and anticipated timeline.

**5.3.1 Introduction** provides an overview of the current state of groundwater challenges for the particular undesirable result(s) your project intends to mitigate. State why the proposed Project or Management Action is technically and economically feasible, or state the unique benefit the proposed Project or Management Action offers. Examples of other peer-reviewed literature or other GSA's that implemented these Project or Management Actions are appropriate here.



**5.3.2** Water supply summary of the water source the Project or Management Action intends to supplement, conserve, or re-manage. *This section needs to quantify the expected annual water benefit based on an average water year<sup>1</sup> (estimates are acceptable).* Of that particular water source, include as many observations and metadata, including the water manager, the water rights holder, and any metrics relevant to the Project or Management Action, such as water quantity, quality, or reliability (e.g. Class 1 or 2 CVP Friant Water). This section includes a description of how many acres or citizens this decision will impact. For instance, if a water source is reduced from the municipal supply, state the total number of citizens/acres dependent on that particular supply.

**5.3.3 Project location** describes the area with a map and include coordinates of all relevant points of interest to the Project or Management Action. This description will likely be at a more local scale than the GSA. Provide a brief narrative of any relevant features relative to water demand or supply, such as hydrogeologic structures, major water bodies, and any major urban centers with sufficient demand to impact the water table at the proposed project location.

**5.3.4 Project description** summarizes all project tasks with enough detail for the MKGSA to judge the technical and economic feasibility of the project. This section includes descriptions all the tasks including but not limited to any surveys, design, permitting, construction, and securing subcontractors. Lastly, specify the methods and frequency of public notices to stakeholders and concerned citizens that are proposed as a part of the Project or Management Actions.

**5.3.5 Expected benefits and benefactor** first describes the primary undesirable result this Project or Management Action intends to mitigate or protect against, according to SGMA. Second, this section will describe the audience principally benefitting from the proposed Project or Management Action. Principal benefactors may be agriculture, municipal, disadvantaged communities, or environmental.

## 5.4 Permitting and regulatory compliance

This section explains the environmental, cultural, and regulatory compliance anticipated to complete the proposed Project or Management Action. Please describe any completed environmental (California Environmental Quality Act or National Environmental Policy Act) work that has been done, and if none has been completed, please state so. Also, please provide a description of any other permits required to begin or complete the proposed Project or Management Action and the status of such permits.

### 5.5 Schedule

Please provide a description of the schedule for the Proposed Project or Management Action. For each task, please provide a start date, the number of days for that task and a completion date. The Schedule can be an estimate, but should reflect the best attempt at a schedule with the amount of information at hand. A table or gant chart is recommended to support the schedule.

<sup>&</sup>lt;sup>1</sup> The MKGSA uses 1997-2017 (20 year-average) to calculate 'average' hydrometeorlogic conditions [4].

## 5.6 Project budget

Proposals shall include all estimated fees to complete the project. This includes all labor (salaries and fringe benefits), equipment, materials and supplies, sub-contractors, administrative expenses, and all supplementary cultural, regulatory compliance, and environmental costs (permits and studies). The proposed Project or Management Action also needs to include an estimate of the annual operating and maintenance costs. Describe any outside sources of funding that are likely (DWR grants, Bureau of Reclamantion Grants, Private Grants) and how the implementing organization plans to cover the balance after grants (if applicable).

## **6. Application Process**

## 6.1 Initial Screening & Edits

The initial screening process will check the proposal solely for completeness. One or more members of the MKGSA staff will review this document within 30 days of receipt. The applicant will receive a decision of either "complete" or "incomplete". "Complete" indicates this proposal is deemed complete and will be sent to the entire MKGSA Advisory Committee for review and consideration for recommendation to adopt as Project or Management action to be included in the MKGSA PMA List. If the document is deemed "incomplete", the MKGSA staff will outline the application deficiencies required for full consideration and provide those recommendation to the applicant. This iterative process continues indefinitely (no limit on re-submittals) until the proposal is deemed "complete".

### 6.2 MKGSA Advisory Committee Review

The MKGSA Advisory Committee is comprised of eleven committee members representing all beneficial users of groundwater within the MKGSA: up to 3 members representing agriculture, up to 3 members representing local government agencies, and up to 3 members representing environmental and/or disadvantaged communities. All other committee members represent one of the 3 JPA entities "at-large". The applicant shall present the Proposal to the MKGSA Advisory Committee at one of the regularly scheduled meetings. Presentations shall be no longer than 30 minutes. The Advisory Committee shall discuss the proposal and take public comments. Upon consideration the Advisory Committee can recommend that the MKGSA Board consider the Project or Management Action for inclusion in the MKGSA PMA List upon a motion, and vote. If the Advisory Committee does not make a recommendation the applicant can revise the proposal and return to seek consideration from the Advisory Committee at another regularly scheduled meeting.



### 6.3 MKGSA Board of Directors Review

The MKGSA Board of Directors is comprised of 2 members from each of the 3 local public agencies in the JPA: Tulare Irrigation District, City of Visalia, and the City of Tulare. Upon the recommendation by the Advisory Committee that a proposal submitted by an applicant for a Project or Management Action be considered for inclusion in the MKGSA PMA List, the MKGSA shall provide an agenda item for consideration at a MKGSA Board of Directors Meeting. The applicant shall be prepared to give a 15-30 minute presentation on the Project or Management Action being proposed. The MGKSA Board of Directors will consider the proposal and allow for public comment. If approved, by MKGSA Board of Directors, the Project or Management Action shall be included on the MKGSA PMA List. If the Board of Directors does not approve the proposal, the applicant shall be allowed to resubmit the proposal to the Adivosory Committee for reconsideration. The MKGSA Board of Directors reserves the right to decline a resubmittal after 3 reviews.

#### 6.4 GSP PMA List Adoption

Once approved by the Board of Directors, MKGSA staff will formally adopt the Project or Management Actions into the MKGSA PMA List, which will also amend the Project or Management action into the MKGSA GSP. The MKGSA will make the list available on *midkaweah.org*, and submit all materials to the Department of Water Resources (DWR) for mutual recognition. Therefore, the Project or Management Action is pre-approved for implementation within the MKGSA.



Figure 2. Graphical view of application process for a PMA



## 7. References

- A. Aljabiry, "Proposition 1 Sustainable Groundwater Planning Grant Program Guidelines," p. 22, 2015.
- [2] "California Code of Regulations." https://govt.westlaw.com/calregs/Document/I5DE0C869F18E402DAAF6EF6DA41A37EE?vie wType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&conte xtData=(sc.Default) (accessed Aug. 30, 2021).
- [3] J. Kimmelshue, S. Mulder, F. Anderson, Z. Wang, and C. Gudel, "Land IQ data driven method (LDDM) for evapotranspiration, precipitation, and crop type at the field level Tulare Irrigation District," Land IQ, Sacramento, CA, Jul. 2021.
- [4] GEI Consultants, "Mid-Kaweah Groundwater Sustainability Agency: Groundwater Sustainability Plan," Bakersfield, CA, 2019.
- "Bill Text AB-1739 Groundwater management." https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201320140AB1739 (accessed Jul. 13, 2021).
- [6] "Bill Text SB-1168 Groundwater management." https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201320140SB1168 (accessed Jul. 13, 2021).
- [7] "Bill Text SB-1319 Groundwater." https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201320140SB1319 (accessed Jul. 13, 2021).



# Attachment A

#### Table 1. List of projects from the MKGSA GSP (2019) and overall status as of August 2021.

	Project Name	Description	Capital Construction Cost	Mean Annual Water Supply Benefit [AF]	Environmenta l Review	Design	Construction Status	Overall Status
10	ordeniz Recharge Basin	This 60-acre basin is located in the northwest corner of the TID service area, with an estimated maximum recharge capacity of 25 AF/day.	\$3.38M	1,610 AF	Complete	Complete	Complete	Complete
20	kieville Recharge Basin	The Okieville recharge basin is a 20-acre recharge facility located up-gradient of a dis-advantaged community. The estimated maximum infiltration capacity here is 10 AF/day.	\$2.9M	630 AF	Complete	In Progress	DNS	DNS
3 T	ID/GSA Recharge Basin	From 2020-2030, Tulare Irrigation District and the MKGSA will look for up to 160 additional acres of recharge basin sites, depending on price, infiltration capacity, and proximity to conveyance facilities.	\$6.4M	5,100 AF	DNS	DNS	DNS	DNS
40	n-Farm Recharge Programs	Up to 600 acres of irrigated acreage may participate in TID's voluntary on-farm recharge program. TID will have a suite of incentive vehicles to encourage growers with the most permeable fields to participate.	\$0	19,080 AF	N/a	N/a	N/a	Complete
5 M	cKay Point Reservoir	The McKay Point is a 4,000 acre-foot off-stream storage reservoir jointly funded between Visalia, People's Ditch Company, Kaweah Water Co, and Tulare Irrigation District. Capital costs will be largely offset via gravel mining to dig the reservoir.	\$12-14M (minus aggregate royalties)	1,600*** AF	In Progress	In Progress	DNS	In Progress
6 K	aweah Subbasin Recharge Basin	The MKGSA intends to acquire at least 160 acres of land with good infiltration capacity. Parcels acquired must be near a TID feeder canal for re-diversion of Kaweah River in surplus years.	\$6.4M	1,908 AF	DNS	DNS	DNS	DNS
7 V	adose Zone Injection Wells	The number and maximum infiltration capacity of vadose zone injection wells specific to the MKGSA are currently unknown, but similar projects can infiltrate between 300-500 gallons per minute when wells are inserted 35-50 ft below the surface (bypassing clay layers).	TBD	TBD	In Progress	DNS	DNS	In Progress
8 T Pi	ID River Siphon Rehabilitation roject	This project includes either resurfacing the inside of the siphons going underneath the Kaweah and St. John's Rivers for \$2M, or replacing the siphons for \$6M. In either scenario, the reduction in friction losses and leakage will increase siphon capacity by 100 cfs and 300 cfs, respectively.	Repair: \$2M Replace: \$6M	TBD	DNS	DNS	DNS	DNS
9 <mark>C</mark> i Pi	ty of Visalia / TID Exchange rogram	Tertiary treated water from the City of Visalia's new \$132M wastewater treatment plant delivers tertiary treated water to TID (>11KAF annually) in exchange for recharge water in surplus years.	\$132M	5,500 AF	Complete	Complete	Complete	Complete
10 Si Pi	ın World Int'l./TID Exchange rogram	TID and Sun World International agrees to exchange 2-3.5 acre-ft of their local Kaweah River supply for 1 acre-ft of TID's Central Valley Project (CVP) supply, the leveraged rate depends on the water year.	\$0	3,400 AF	N/a	N/a	N/a	Complete
11 T	ID/Friant Exchange Program	TID and the Friant Water Authority make exchange agreements intermittently that offer guaranteed dry-year water supplies in exchange for a leveraged (higher volume) rate to TID in surplus years. These exchange agreements frequent, ongoing, and variable in duration.	\$0	TBD	N/a	N/a	N/a	Complete
12 T	emperance Flat Reservoir	California Water Commission's 1.26 MAF, \$2.6B reservoir (\$171M funded by the California Water Commission) to store excess water that would otherwise spill from Millerton Reservoir did not have the political or public support in 2020 to begin construction.	\$2,600 M	61,000 - 76,000* AF	Complete	Complete	DNS	On-hold
13 C	ty of Tulare / TID Catron Basin	The City of Tulare owns a 100-acre agricultural parcel that can store up to 50 AF per day for excess storm water that cannot otherwise be conveyed in TID canals.	\$1M	1,600 AF	DNS	DNS	DNS	DNS
14 Ci	ty of Visalia / TID Cameron reek Recharge	Develop automated gates and check structures to create a linear recharge facility along this creek, with notoriously high infiltration rates. Cost and water befefits similar, but sumaller than Packwood Ck (below)	<\$1.6M	<730 AF	DNS	DNS	DNS	DNS
15 Pa Pi	ackwood Ck Water Conservation roject	This project involved four automated check structures with SCADA retrofits – allowing accurate and remote control of flows, and the ability to maintain higher water levels.	\$1.6M	730 AF	Complete	Complete	Complete	Complete
16 V G	isalia Eastside Regional Park & W Recharge	The City of Visalia's construction of this 250-acre park will dedicate up to 50 acres to groundwater recharge. This site is northeast of the city, up-gradient the city's largest wells.	\$1.7M	315 AF	Complete	In Progress	DNS	In Progress
17 G A	roundwater Recharge ssessment Tool	This online tool, completed in 2019 (https://grat.earthgenome.org/) allows for assessment of on-farm recharge, fallowing, and recharge basin development based on various criteria, such as access to conveyance facilities, soil types, recharge potential, and retention for continued usage.	\$0	N/a	N/a	N/a	N/a	Complete
18 T	ID Existing Recharge Capacity	TID is considering alternative maintenance practices for its recharge basins amid its 15 basins (over 1,400 acres) in order to maximize infiltration rates.	\$0	TBD	N/a	N/a	DNS	In Progress

DNS = Did Not Start N/a = Not Applicable TBD = To Be Decided \*\*\* = Preliminary estimate

\*United States Department of the Interior (2014), "Draft Feasibility Report: Upper San Joaquin River Basin Storage Investigation," Klamath Falls, OR.



# Attachment B

# Table 2. List of Management Actions from the MKGSA GSP (2019) and overall status as of August 2021.

	Project Name	Description	Implementation Cost	Status comments	Overall Status
1	Extraction Measurement Program	The City of Tulare and City of Visalia are fully metered to measure pumping. However, TID extractions often are unmeasured or owned privately (unreported). Therefore, TID will launch a program to determine the most feasbile method to measure groundwater extraction.	\$200K - \$4M	Pilot program should be complete December 2021. TID will convert LandIQ ET measurements to pumping.	In Progress
2	Groundwater Extraction Allocation Implemtation	Develop a regulatory framework to limit excessive groundwater extractions and impose an allocation mechanism. A measurement program will need to be sufficiently accurate to enforce the allocation prior to allocation implementation	Unknown, depends on enforcement	Due to the extreme dry conditions in 2018, 2020, & 2021, an allocation will be implemented by October 2021.	In Progress
3	Groundwater Marketing Program	After a groundwater allocation and sufficiently accurate measurement program is in place, a marketing program can be implemented. After an exhaustive stakeholder engagement program, the water market allows trading of physical water (not credits).	\$350,000	Stantec selected as the consultant to develop the groundwater marketing strategy.	In Progress
4	Subbasin Geophysical Data Survey Project	In partnership with Stanford University, TID will split the ownership and cost to purchase a towable transient goundbased electromagnetic system (tTEM). The tTEM unit will image the the soil characteristics up to 250ft deep to site the best recharge basins & on-farm recharge locations.	\$150,000	TID purchased all the equipment as of late August 2021 and is currently collecting and processing data in-house for the Southern San Joaquin Valley.	In Progress
5	Well Characterization Project	Collect data on agricultural wells with limited or no information on depth, casing caracteristics, and screen intervals. This project entails video and spinner logging to determine local lithography and productive depths of the aquifer.	Unknown cost and project scope		In Progress
6	Urban Water Conservation	Transition the current urban residential water use cap from 55 gallons per capita per day (gpcd) to 50 gpcd by the year 2030 (indoor use only). Outdoor use may vary more frequently and more abruptly depending on water availability.	Unknown cost and project scope		In Progress
7	Agricultural Water Conservation and Management	Tulare Irrigation District currently complies with all the provisions of SB 7, AB 1668, and SB 606. All provisions are related to water conservation and management practices. TID will continue to encourage more efficient water use by the agricultural sector and its suppliers.	Unknown cost and project scope	TID already complies with SB 7, but will continue to adapt conservation and management plans for more efficient use of water.	Ongoing
8	Assistance for Small Water Systems, Domestic Wells	Small wells may experience a reduction in efficiency or dry up in response to lowered groundwater levels. The MKGSA will consider programs such funds to school or small community wells, following well characterization studies and registration programs.	Unknown cost and project scope	Coordinating with Self-Help on a fair way to fund dry or impaired wells in DACs	In Progress
9	Collaboration with Other Agencies	MKGSA will provide education and information on funding opportunities, share ideas and resources with other GSAs, and pursue partnerships with other agencies (including grant opportunities).	Unknown cost and project scope	Numerous collaborations have been established, including NASA's Airborne Snow Observatory, Stanford Geophysics Group, and College of the Sequoias	In Progress

DNS = Did Not Start.

