**Attachment 3**

**Application Work Plan, Budget, and Schedule – Template**

|  |  |
| --- | --- |
| **Grant Proposal Title:**  |  |
| **Applicant:** |  |

1. **General** (maximum of 22 points possible)

Provide a Project Description that addresses the requested information identified below. The description must not exceed 4 pages per Component (not including tables and figures) using a minimum Arial, 10-point type font.

1. **(4 points) Provide Project or Component Description which must include the following:**

**A complete, detailed description of the overall proposed Project or Component; [proponent should provide]**

The Sustainable Groundwater Management Act (SGMA) Monitoring Network is foundational to the Groundwater Sustainability Agencies (GSAs) quantitative understanding of the basin and required to assess the Sustainability Indicators for the Basin, protect against Undesirable Results (URs) and track progress made by implemented Projects and Management Actions (PMAs). As described in *Section 17.1.1 Monitoring Network for Chronic Lowering of Groundwater Levels* of the Cosumnes Groundwater Sustainability Plan (Cosumnes GSP)the SGMA Monitoring Network for Chronic Lowering of Groundwater Levels (RMW-WLs) consists of 19 wells, planned new monitoring well sites distributed across the Basin, and a network of supplemental wells. Sustainable Management Criteria (SMCs) are not established for the supplemental wells, but the data collected are used to confirm the representativeness of each Representative Monitoring Site (RMS) and support the wider understanding of the Basin’s hydrology and response to the PMAs. Therefore, it is critical that data gaps be prioritized and addressed as described in *Section 19.1.2 Data Gap Filling Efforts* of the Cosumnes GSP.

Data gaps in the SGMA Monitoring Network include incomplete or unavailable construction information for some of the current RMSs. As described in California Department of Water Resources’ (DWR’s) Monitoring Network Best Management Practices (BMPs) if existing wells are used, the perforated interval should be known to be able to utilize water level or other data collected from that well[[1]](#footnote-2). This project will include downhole video log of current RMSs lacking information on well screen perforation intervals and total depth (16 wells), and surveying measurement point elevations and location coordinates that do not meet SGMA-compliant accuracy (#wells). This work will be completed, as appropriate, for additional wells added to the network as part of this Component.

As described in *Section 17.4 Assessment and Improvement of Monitoring Network* of the Cosumnes GSP, dedicated monitoring wells screened at more than one depth interval of the Principal Aquifer are needed to quantify relationships between water table elevation changes and extractions from deeper water supply wells, especially near the Cosumnes River and Dry Creek. These multi-depth monitoring sites are also needed to evaluate possible perched groundwater conditions that likely support Groundwater Dependent Ecosystems (GDEs) in some parts of the Basin. Some of the areas identified with GDEs are also classified as Disadvantaged Communities (DAC). The Cosumnes GSP also noted that additional monitoring sites are needed in the area overlying the mapped cone of depression in the southeastern portion of the Basin. This Component plans to expand the monitoring network by constructing up to 4 new monitoring well sites comprised of more than one well screened across different depth intervals. The sites will be selected to monitor conditions near DACS, GDEs and within the area of the mapped cone of depression.

The Cosumnes GSP recognizes that domestic wells are greatest in number and generally shallowest in depth and therefore are the most vulnerable to declining water levels. The Cosumnes GSP defines Significant and Unreasonable effects associated with Undesirable Results (URs) occur when the number of completely dewatered domestic wells exceeds the assumed natural well replacement rate projected to occur over the 20‐year implementation horizon. This Component includes increased landowner outreach and engagement to develop a more accurate inventory of existing domestic and agricultural wells, along with soliciting volunteers to include their wells in the supplemental monitoring network. Expanding the network of supplemental domestic and agricultural wells is needed to confirm that the SGMA monitoring network is representative of Basin conditions, protect the water supply of all beneficial users, including DAC and other underrepresented communities, and track the response to PMAs.

* **An explanation of communities served,**

**[proponent should identify Grantwriter will flesh out]**

* **measurable objectives, minimum thresholds, plan implementation timeline, and feasibility. (If any of these areas are NOT applicable, state which area and why.);**

[Grantwriter will fill out]

The Representative Monitoring Network is a required component of the GSP and improves the quantitative description of the basin setting which includes the hydrogeologic conceptual model (HCM), groundwater conditions, and water budget; reliability of the numerical surface water groundwater model, and minimum thresholds and measurable objectives. Therefore, it is critical to fill the data gaps identified in the Cosumnes GSP. Monitoring network improvements will provide a more effective representation of basin conditions and more reliably quantify progress towards MOs and protect against URs. The Representative Monitoring Network is in-place and actively utilized. Therefore, data gaps that include video logging to determine well screen intervals and land surveying measurement point elevations can be completed and benefits realized immediately. The monitoring network monitors water level conditions throughout the Basin, and most communities, and will be expanded to improve representation of Underrepresented Communities and GDEs.

* **A description of the proposed Project or Component’s goals, objectives, and needs;**

**[proponent should provide]**

Goal: Improve the SGMA Monitoring Network by filling data gaps identified in the Cosumnes GSP.

Objectives:

* Expand outreach and engagement efforts to underrepresented communities (e.g., DACs, private landowners representing agriculture and aquaculture industries, and GSAs for neighboring basins). These activities are necessary to gain access to land and wells to expand the SGMA Representative Monitoring Network and integrate supplemental sites.
* For current RMSs, collect missing or inadequate data for well screen perforation intervals, total well depth and survey SGMA compliant measurement point elevations and locations.
* Increase number of wells to monitor conditions near (i) DACs; (ii) potential GDEs; and (iii) perched/shallow aquifers; and, (iv), beneath the area overlying the mapped cone of depression.
* Expand the network of supplemental domestic and agricultural wells to confirm the SGMA Representative Monitoring Network is representative.

Needs: The Basin relies on the SGMA Representative Monitoring Network to evaluate SMCs, assess the Sustainability Indicators for the Basin and to track the progress made by PMAs that are implemented. Hence, the GSAs need to ensure the network utilizes the appropriate number and spatial distribution of monitoring sites.

* **A description of how the Project or Component’s goals, objectives, and needs will be met by the proposed Project or Component.**

**[proponent should provide bullet points; Grantwriter will flesh out]**

1. **(4 points) NOTE: FOR IMPLEMENTATION PROJECT/COMPONENTS FOLLOW 2A BELOW; FOR PLANNING PROJECT/COMPONETS FOLLOW 2B BELOW (4 points maximum will be given for 2A OR 2B).**

**~~2A – Implementation Project/Components Only: Quantifiable benefits expected to be realized from the proposed Project or Component.~~**

* **~~Include an explanation of the benefits that are expected to be realized from the proposed Project or Component.~~**
* **~~Describe how the claimed benefits will be evaluated and quantified.~~**

**~~[proponent should provide bullet points; grantwriter will flesh out]~~**

* **~~Assure industry standard units of measurements are used to in measurement of benefits.~~**

**2B – Planning Project/Components Only: Description of planning project/component is well-coordinated.**

* **If activities are addressing DWR comments on GSP, explain how the proposed activity fully addresses comments and if not, which comments are not addressed and why.**
* **Explain if the proposed activities will help fill data gaps or other areas in the GSP that was known to be lacking.**
* **Explain how the activities assist in the feasibility of implementation of the GSP or Alternative.**

 **[proponent should provide bullet points; grantwriter will flesh out]**

The current Representative Monitoring network includes wells in all GSAs, have been approved by all GSAs and were developed through a well-coordinated effort. Additionally, the Outreach and Engagement task of this Component will increase intra-basin coordination of monitoring. *Section 19.1.2 Data Gap Filling Efforts* of the Cosumnes GSP describes that the GSAs will prioritize and begin to fill key data gaps related to monitoring as part of GSP Implementation. This Component will address data gaps identified in *Section 17.4 Assessment and Improvement of Monitoring Network* of the Cosumnes GSP including incomplete or unavailable construction information for some of the current Representative Monitoring Network wells and that dedicated monitoring wells representing multiple depths are limited but needed to quantify relationships between water table elevation changes and extractions from deeper water supply wells especially near the Cosumnes River and Dry Creek. Public comments received on the Public Draft of the Cosumnes GSP and public comments received verbally at the monthly CGA Board of Director’s Meetings identifying the need to monitor additional domestic wells will also be addressed by this Component.

1. **(2 points): Provide a regional and Project/Component map(s).**

**[proponent should provide]**

* **Provided map(s) clearly depict the site location, current conditions, and benefitting areas as Attachment 4. DO NOT INCLUDE IN WORK PLAN!**
1. **(4 points) Explain if the proposed Project or Component will benefit an URC, Tribe or SDAC.**
* **Clearly explanation if the proposed Project or Component will benefit an URC, Tribe or SDAC.**
* **Identify the URC(s), Tribe(s), and/or SDAC(s) that the proposed Project or Component will be benefiting.**

**[Proponent should identify any they know about; otherwise, grantwriter will complete]**

Public outreach and engagement is a key task of this component, as it is essential to solicit volunteers to monitor their wells and/or gain access to lands to install dedicated monitoring wells. The Underrepresented Communities and areas overlying the mapped cone of depression are key areas to expand the monitoring network and therefore additional outreach will be made in these areas.

* **Provide map(s) depicting the URC(s), Tribe(s), and/or SDAC(s) that the proposed Project or Component will be benefiting. Add these maps to Attachment 4 to ensure the maps are not counted against the page number allotment.**

**[grantwriter will complete]**

* **Provide the amount of grant funding per Component (if no Components, per the Project) that will benefit the Tribe, Underrepresented Community, and/or SDAC.**

**[grantwriter will contact proponent to complete]**

1. **(4 points) Describe if the proposed Project or Component will positively impact issues associated with small water systems or private shallow domestic wells (groundwater contamination vulnerability, drawdown, etc.).**

**[proponent should provide bullet points if they know of benefits; grantwriter will flesh out]**

* + **Provide justification such as domestic well census results, water system maps, service area maps, etc.**
	+ **Describe if the Project or Component will help address the needs of the State Water Board’s SAFER Program.**

**[grantwriter will complete]**

Increased monitoring of domestic wells, shallow water conditions near GDEs and DACs will help identify impacts to these areas. Domestic wells are typically the most vulnerable to water level decline below the top of well screen because they are often drilled shallower due to lower water use requirements and financial constraints.

1. **(4 points) Describe how the proposed Project or Component addresses the Human Right to Water (AB 685 Section 106.3) and supports the established policy of the State that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking and sanitary purposes.**

**[grantwriter will complete]**

**Project/Component Details**

1. **Scope of Work and Deliverables** (maximum of 4 points possible)

Descriptions of the anticipated tasks necessary to complete the proposal. **Tasks should be organized by the five budget categories, as indicated in the Budget and Schedule (below).** Include only tasks and deliverables that are being potentially funded by grant funds from this solicitation only. The work plan should also identify the anticipated deliverables for each task. Each task identified in the proposal must have a minimum of one deliverable. Deliverables should be actual work products that can be submitted to DWR. Include the percent (0 – 100%) completed.  The scope of work and deliverables must not exceed 2 pages per component using a minimum Arial, 10-point type font.

If awarded, this information will be used to develop the Grant Agreement. Follow the Agreement template provided at the following link: [www.water.ca.gov/sgmgrants.](http://www.water.ca.gov/sgmgrants.) Examples of past funded agreements are provided on the website to provide more instructions on how to develop this Scope of Work and Deliverables portion of the Work Plan. The Work Plan must include a scope of work to allow reviewers to understand the level of effort of the work being performed and to substantiate the cost estimates in the Budget.

1. (4 points) Include in the Work Plan a complete description of all tasks that will be completed as part of this grant Project or Component. Tasks associated with the Project or Component but not funded by potential grant funds from this solicitation should not be included.
	* Tasks should be organized by the five budget categories, as indicated in the Budget and Schedule (below).
	* Identify all necessary and reasonable deliverables. List at least one deliverable per task (see notes below).
	* Assure that all tasks and deliverables follow general outline of the example agreement and agreement template (see link above).

**a. Scope of Work**

The scope of work must list and concisely describe the necessary task(s) to complete the project. The Project Details of the Work Plan should identify how the interested parties including groundwater users, stakeholders, and the general public, will be informed about the proposed project progress and how relevant reports and data will be disseminated to these groups. The scope of work must identify tasks associated with the project.

**[proponent should provide]**

**b.** **Project Deliverables**

Project deliverables should be actual work products that can be submitted to DWR (e.g., studies, engineering, design plans and specifications, land and easement acquisition, quality analysis, supporting tests completed in support of well design, drilling, completion, bid documents, photos of construction, etc.)

**[proponent should provide]**

**(a) Component Administration**

**Task 1. Project Management**

Task 1 includes general component management tasks, such as invoicing, budget tracking, schedule management, staff assignments, and subconsultant coordination and management.

Deliverables:

* Invoices

**(b) Environmental / Engineering / Design**

**Task 1 Well Siting**

Task 1 includes determining the best location for monitoring well(s) installation. Location(s) will include areas near DACs, potential GDEs, perched/shallow aquifers, and/or beneath the area overlying the mapped cone of depression. Once well location(s) have been established, site plan(s) will be developed to accompany the well application and permit form(s) completed under Task 2. The site plan will contain the well location information, including parcel dimensions, streets, structures, and contours.

Deliverables:

* Map of proposed well locations
* Written access agreements

**Task 2 Well Design & Permitting**

Task 2 includes work efforts and costs associated with monitoring well design and permitting. Following DWR’s Monitoring Network BMPs, monitoring wells should: (1) be a dedicated monitoring well, (2) have an aquifer-specific screened interval, and (3) consider both unconfined and semi-confined aquifers.

After gaining access under Task 1, well installation permit(s) will be obtained from Sacramento County prior to installation of the monitoring wells. Specifically, well application and permit form(s) and associated site plan(s) developed under Task 1 will be submitted to Sacramento County Environmental Compliance Division.

It is not anticipated that the monitoring well installation(s) will require any environmental compliance documentation associated with California Environmental Quality Act (CEQA) obligations. CEQA provides numerous categories of exemption, including Class 6 for information collection activities that do not result in serious disturbance to an environmental resource.

Deliverables:

* Well plans
* Monitoring well permits

**(c) Implementation / Construction**

**Task 1 Well Installation**

Task 1 includes the field work and construction costs associated with installing and developing up to four monitoring well(s). Well installation(s) will occur after permit(s) have been approved by Sacramento County Environmental Compliance Division. Under Task 1, it is assumed the GSAs will secure access to well sites and mark the site(s) for Underground Services Alert (USA) clearance. USA will be called at least two working days, but no more than 14 working days prior to drilling activities. A qualified C-57 licensed well driller will install up to four monitoring wells with the process overseen by a California registered Professional Geologist. At least 24-hours before completing the well installation, a well inspection appointment for annular seal placement will be made with Sacramento County Environmental Management Department. The Sacramento County inspector will be on-site to observe the annular seal placement and sign off on the well installation. No less than 24 hours after annual seal placement, the monitoring well(s) will be developed by the well driller.

As required by DWR, a Well Completion Report for each monitoring well will be submitted to DWR within 60 days of installation completion. The Well Completion Report will include a detailed well log, including lithologic descriptions and well construction information.

Deliverables:

* Well completion report(s)

**Task 2 Well Survey**

Task 2 includes the field work associated with surveying up to X current Representative Monitoring Network wells and up to four newly installed monitoring well(s). The well survey will be conducted by a qualified and licensed land surveyor and will determine the horizontal coordinates with a maximum 30-foot accuracy and the vertical reference point elevation and ground surface elevation with a maximum accuracy to 0.5 feet to be fully compliant with DWR’s standards for SGMA Monitoring Network.

Deliverables:

* Well location survey report(s)

**(d) Monitoring / Assessment**

**Task 1 Downhole Video Logging**

Task 1 includes the field work associated with performing downhole video logging of up to 16 current Representative Monitoring Network wells. The video logging will be done by XXXX and will determine the screen perforation intervals and total well depth of each well.

Deliverables:

* Table of updated well construction data

**Task 2 Water Level Instrumentation**

After the monitoring wells are installed under Category (c) Task 1 and the wells are surveyed under Category (c) Task 2, the Technical Consultant will install water level monitoring instrumentation into the wells to measure seasonal and shorter-term water level changes (e.g. irrigation season, rainfall-run off events, etc.). Data collected will be used to evaluate the impact of PMAs, the connectivity between water levels near surface water features and GDEs, surface water and groundwater interactions, and water table response to deep well extractions. The data and evaluation results will be incorporated into the Basin Data Management System (DMS) and support GSP implementation and model refinement.

Deliverables:

* Field sheet(s) and pictures

**Task 3 DMS Update**

Task 3 includes incorporating data and evaluation results from all other tasks into the Basin DMS.

Deliverables:

* Table of data added to the Basin DMS

**Task 4 Model Update**

Task 4 includes updating appropriate model input files.

Deliverables:

* Table of model files updated

**(e) Engagement / Outreach**

**Task 1 Landowner Outreach**

Task 1 includes outreach and engagement efforts to landowners within the Basin and GSAs in neighboring basins to coordinate monitoring. These activities are necessary to improve the inventory of domestic wells in the Basin and to gain access to land and wells to expand the SGMA Representative Monitoring Network and integrate supplemental sites.

Deliverables:

* Outreach materials

**Task 2 Expansion of Supplemental Well Network**

Task 2 includes expanding the network of supplemental domestic and agricultural wells to confirm the SGMA Representative Monitoring Network is representative.

Deliverables:

* Map of Supplemental Well Network
1. **Budget** (maximum of 1 point possible)

Complete the Budget Summary Table using the template provided (below). You must also include a ranking system using the template provided by the SGM Grant Program. The ranking table will not be scored, but will be used when developing the draft and final award list. You may use a maximum of 2-pages using Arial, 10-point type font, to justify the budgets provided.

1. (1 point) Provide a completed budget summary table using template below.
	* Assure that the budget is reasonable for the project.
	* Assure that the budget table provided coincide with the scope of work and the schedule table.
2. **Schedule** (maximum of 1 point possible)

Complete the Schedule Table using the template provided (below). The Schedule Table must not exceed a TOTAL of 2 pages using a minimum Arial, 10-point type font.

1. (1 point) Provide a completed schedule table using template below.
	* Assure that the schedule is feasible for the project.
	* Assure that the schedule table provided coincide with the scope of work and the budget table.

Provide a brief description of the plan for environmental compliance and permitting, if applicable, including the following items and a status of each:

* A description and/or list of expected environmental compliance requirements, including any California Environmental Quality Act obligations;
* A listing of environmental related permits or entitlements that are needed for the project;
* A list of easement/land acquisition needed.

**BUDGET TABLE TEMPLATE**

**[Grantwriter will complete summary budget compiling all components]**

**Component X: <enter title>**

Component X serves a need of a DAC, SDAC, Tribe and/or Underrepresented Community?

(check all that apply): [ ] DAC, [ ] SDAC, [ ] Tribe, and/or [ ] Underrepresented Community

|  |  |
| --- | --- |
| **Budget Categories** | **Grant Amount** |
| (a) Component Administration  | $0 |
| (b) Environmental / Engineering / Design | $0 |
| (c) Implementation / Construction | $0 |
| (d) Monitoring / Assessment | $0 |
| (e) Engagement / Outreach | $0 |
| **Total:** | **$0** |

# **SCHEDULE TABLE TEMPLATE**

**[Grantwriter will complete summary schedule compiling all components]**

*For Project with MULTIPLE Components use the following:*

**Grant Title: <enter title>**

| **Categories** | **Start Date** | **End Date** |
| --- | --- | --- |
| **Component 1: Grant Administration <or other component name if no Grant Administration is covered by grant funds>** |  |  |
| (a) Component Administration | MM/DD/YYYY | MM/DD/YYYY |
| (b) Environmental / Engineering / Design  | MM/DD/YYYY | MM/DD/YYYY |
| (c) Implementation / Construction  | MM/DD/YYYY | MM/DD/YYYY |
| (d) Monitoring / Assessment | MM/DD/YYYY | MM/DD/YYYY |
| (e) Engagement / Outreach | MM/DD/YYYY | MM/DD/YYYY |
| **Component X: <component name>** |  |  |
| (a) Component Administration | MM/DD/YYYY | MM/DD/YYYY |
| (b) Environmental / Engineering / Design  | MM/DD/YYYY | MM/DD/YYYY |
| (c) Implementation / Construction  | MM/DD/YYYY | MM/DD/YYYY |
| (d) Monitoring / Assessment | MM/DD/YYYY | MM/DD/YYYY |
| (e) Engagement / Outreach | MM/DD/YYYY | MM/DD/YYYY |

1. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-2-Monitoring-Networks-and-Identification-of-Data-Gaps\_ay\_19.pdf [↑](#footnote-ref-2)