Exhibit A
WORKPLAN TEMPLATE

Project Title: Implementation of San Antonio Basin Projects and Management Actions (PROJECT)

Applicant: San Antonio Basin Groundwater Sustainability Agency

Project Description: The Work Plan includes activities associated with implementation of priority Groundwater Sustainability Plan (GSP) projects and management actions for the San Antonio Creek Valley Groundwater Basin (Basin). The resulting implementation projects will incorporate appropriate Best Management Practices (BMPs) as developed by the California Department of Water Resources (DWR) and will result in a more complete understanding of the Basin to further assess and support long-term sustainable groundwater management.

The San Antonio Basin Groundwater Sustainability Agency (SABGSA) was formed in 2017 for the purpose of sustainably managing groundwater and developing the GSP for the Basin. The SABGSA member agencies are the San Antonio Basin Water District (SABWD) and Los Alamos Community Services District (LACSD). The primary industry in the Basin is agriculture and its base population are farmers. Total Basin population is estimated at 2,168 and the population center of the Basin resides within the town of Los Alamos, population 1,839. CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the entirety of the Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4). This is the population served by this work. The Basin does not have any large municipalities to assist with funding for any design, planning or construction projects, and all match funding for sustainable groundwater management (SGM) projects to date have been derived from SABWD assessment fees. The PROJECT consists of the following eight major components:

Component 1: Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks
Component 2: Survey and Investigate Potential GDE's in the Basin
Component 3: Water Use Efficiency Programs and LACSD Wellfield Pumping Coordination
Component 4: Groundwater Pumping Fee Program
Component 5: Aquifer Recharge Feasibility Study
Component 6: Annual GSP Reporting
Component 7: Grant Administration
Component 8: Groundwater Base Pumping Allocation Program

Component 1: Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks

COMPONENT 1: MONITORING, MAINTENANCE, AND EXPANSION OF THE BASIN MONITORING NETWORKS

A. General Information

1. Complete, detailed description of the overall proposed Component

Funding is being requested by the SABGSA for monitoring, maintenance, and expansion of the Basin monitoring networks. This component focuses on implementation of projects and management actions (P&MAs) that aid the SABGSA in filling identified data gaps, which were prioritized as Tier 1 P&MAs in the GSP. In general, P&MAs included in this component will apply to all areas within the Basin and reflect basic GSP monitoring and reporting requirements.

The SGMA regulations require identification of data gaps and a plan for filling them (§ 354.38). During development of the Basin GSP, data was collected and reported for each of the five sustainability indicators relevant to the Basin (the seawater intrusion sustainability indicator is not applicable to the Basin), and data gaps were identified. Addressing data gaps is necessary to reduce uncertainty and improve understanding of Basin conditions so that better information is available for managing the Basin and considering the efficacy of the initial sustainable management criteria (SMC) that have been selected.

Initial P&MAs to fill the identified data gaps will include the following tasks under this component:

- Site Access and Planning
- Groundwater Level Monitoring Network Maintenance Projects
- Expand Monitoring Well Network
- Install Continuous Data Recording Pressure Transducers
- Install Barka Slough Stream Gages and Piezometers
- Quarterly Groundwater Level Monitoring and Reporting
- Reference Point Elevation and Well Video Surveys

Task 1: Site Access and Planning

Task 1 includes pre-implementation activities that will need to be completed as a prerequisite to implementing subsequent tasks. Access agreements with landowners will be secured for activities under Tasks 2, 3, and 5. Scopes of work, pre-bid, and bid documents will be prepared to facilitate selection of contractors to implement Tasks 2, 3, 5, and 7. Site walks will be needed to confirm feasibility and scopes for Tasks 2, 3, and 7. For Tasks 3 and 5, sites will need to be selected for installing new monitoring wells, stream gages, and piezometers. Permits may also need to be secured for Tasks 3 and 5.

Task 2: Groundwater Level Monitoring Network Maintenance Projects

A well-maintained groundwater level monitoring network is critical to filling data gaps. Monitoring wells and access trails in the Basin's largest identified Groundwater Dependent Ecosystem (GDE; Barka Slough) have become overgrown with vegetation (see Figure 4 on page 4 of Attachment 4 for well locations). Consequently, attempting to access these wells has become a safety issue for field personnel. Annual vegetation trimming of the access trails is required to ensure safety of field personnel and continued regular collection of groundwater level data. Additionally, the SABGSA plans to install a tall marker, such as PVC tubing or similar, adjacent to the wells to serve as a landmark so that well locations are not lost in the vegetation.

Well 2M1, a Basin representative monitoring site (RMS) included in the Basin groundwater level monitoring network, has a period of record of water level measurements from 1977 to 2022 but is no longer gauged due to a damaged or obstructed sounding tube, which causes sounding equipment to get caught in it during monitoring events. Funds are being requested to install a new sounding tube on the RMS to enable continuation of accurate and regular monitoring of groundwater levels at the RMS. See Figure 7 on page 7 of Attachment 4 for the location of well 2M1.

Task 3: Expand Monitoring Well Network

Although the existing monitoring network satisfies the well density guidance required by DWR, there are areas identified in the Basin (see Figure 6 on page 6 of Attachment 4) where additional monitoring wells would substantially improve the understanding of groundwater conditions and minimize uncertainty around groundwater elevation trends. Two low density areas in both principal aquifers were identified in the Basin: the eastern uplands and the central to northwestern uplands. Existing wells in these areas have been identified, but the SABGSA has been unsuccessful in securing well access agreements. To fill the identified low well density areas, the SABGSA is requesting funds for the installation of four monitoring wells.

Task 4: Install Continuous Data Recording Pressure Transducers

Currently, continuous data recording pressure transducers (transducers) are installed in 10 of the 38 wells included in the Basin groundwater level monitoring network (see Figure 8 on page 8 of Attachment 4). The SABGSA is requesting

funding for the purchase and installation of an additional 10 transducers. The continuous water level data from these transducers will enable a more complete analysis of impacts from local pumping, connectivity of principal aquifers, impacts of any implemented P&MAs, and measuring progress toward Basin sustainability goals.

Task 5: Install Barka Slough Stream Gages and Piezometers

Interconnected surface water and groundwater within the Careaga Sand (the two Principal Aquifers identified in the Basin are the Paso Robles Formation and the Careaga Sand) is indicated by discharge of groundwater into Barka Slough (Slough) and by the perennial classification of streams in that area. Groundwater levels measured in wells near the Slough indicate that groundwater levels have fallen below the Slough ground surface elevation in several locations since about 1983. In addition, upward vertical gradients within the Careaga Sand near the Slough have decreased, which indicate that groundwater flow into the Slough has likely declined.

Surface water also discharges into the Slough. The surface water component of flow into the Slough is as important as groundwater discharge into the Slough. Currently, no stream gage exists where surface water flow enters or exits the Slough. The Casmalia stream gage is located more than 2.5 miles west of the Slough and there are groundwater uses between the Slough and the Casmalia gage. Due to a lack of local stream gage data, the presence or absence of surface water entering and exiting the Slough is unknown and specifically whether surface water flow into the Slough has been decreasing. Thus, there is considerable uncertainty regarding the sources and quantities of water supporting the Slough and how SMCs should be set in this area.

In collaboration with the Santa Barbara County Water Authority (SBCWA) and consultation with Vandenberg Space Force Base (VSFB) and the US Geological Survey (USGS), the SABGSA has identified two locations for installation of a stream gage to supplement characterization of spatial and temporal exchanges between surface water and groundwater relative to Barka Slough (see Figure 5 on page 5 of Attachment 4). A stream gage downstream of the confluence of San Antonio Creek and Harris Canyon Creek and upstream of the Slough would enable direct quantification of surface water entering the Slough. A second stream gage at the west end of Barka Slough (where surface water discharges from the Basin), near California State Highway 1, would provide a more direct quantification of surface water discharge exiting the Slough. The addition of a stream gage at this location would inform the water budget for the Slough and improve the ability to assess the interconnected surface water SMCs.

Measurement of groundwater levels within the Barka Slough sediments would aid in understanding the water budget and groundwater conditions within the Slough. SABGSA is requesting funding for the installation of three shallow piezometers within the Barka Slough sediments to allow monitoring of groundwater levels within the root zone of the plants in the Slough (see Figure 5 on page 5 of Attachment 4).

As discussed further in Component 2, Task 3, the SABGSA understands the USGS, in cooperation with the SBCWA and VSFB, are planning to assess the effects of future climate scenarios in the Basin on Barka Slough. The proposed scope of work will include the installation of one stream gage along San Antonio Creek (upstream of Barka Slough) and the reactivation of a second stream gage along Harris Creek. VSFB would be responsible for costs including installation, maintenance, and monitoring of the stream gages through September 2023. If the proposed stream gages are installed, the SABGSA would use the requested funds to continue maintenance and monitoring of the stream gages after September 2023. Additionally, the SABGSA would pursue the installation of the proposed stream gage downstream of the Slough.

Task 6: Quarterly Groundwater Level Monitoring and Reporting

The SABGSA is requesting funds to continue the Basin's Quarterly Groundwater Level Monitoring and Reporting. Groundwater Levels serve as a sustainability indicator for not only groundwater levels, but also as a surrogate for the Change in Groundwater in Storage sustainability indicator. All wells included in the monitoring network are screened in at least one of two of the Basin's principal aquifers. Groundwater level measurements are collected manually on a quarterly basis in 38 wells included in the Basin Groundwater Level Monitoring Network (monitoring network; see Figure 7 on page 7 of Attachment 4). Prior to each quarterly monitoring event, well owners are contacted to coordinate access to the wells and request that well owners shut off the well for at least 8 hours before the monitoring event so that a static measurement can be obtained. Water level data is collected at more frequent intervals using existing transducers installed in 10 of the 38 wells. The water level data is downloaded from the transducers and calibrated with manual depth to water readings on a quarterly basis. Manual depth to water measurements and transducer data is uploaded into the data management system (DMS).

At the end of each quarter, a brief Technical Memorandum (TM) is generated that presents an overview of that quarter's monitoring activities, a table of the results, and a description of any changes in the monitoring program that may influence data collection and can be reviewed as needed.

Task 7: Reference Point Elevation and Well Video Surveys

Some wells in the monitoring network (see Figure 7 on page 7 of Attachment 4) lack adequate documentation regarding the reference point elevation (RPE), depth, geologic formations intersected, casing characteristics, screened intervals,

pump setting, and/or well construction details. To address this data gap, the SABGSA is requesting funds to perform RPE surveys and video logging to ascertain well construction details and the location of well production zones.

A survey of the RPE is needed for all existing wells that are now, or will be in the future, included in the monitoring network. This is needed because not all wells in the program have been surveyed and because different vertical elevation datums have been used in the past. The planned RPE survey will be performed using high-resolution Global Positioning System (GPS) equipment to ensure that all groundwater level data are referenced to the same vertical datum.

The SABGSA will also perform video surveys on all wells included in the monitoring network. The objective of the video survey work is to assess the characteristics of each well.

An explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility.

Monitoring, maintenance, and expansion of the monitoring network directly serves all Basin communities, including GDEs. Regular monitoring of Basin conditions enables the SABGSA to identify groundwater level trends, assess connections between surface and groundwater and between wells across the Basin, and advise on Basin groundwater management efforts.

SMCs, including measurable objectives (MOs) and minimum thresholds (MTs), have been established for all five applicable sustainability indicators by measuring relevant conditions at RMSs located across the Basin. Sufficient monitoring of the RMSs enables the SABGSA to measure the Basin's progress toward sustainability goals against respective SMC described in the Basin GSP. While monitoring does not directly impact MOs and MTs, the process of monitoring and reporting on groundwater conditions is a fundamental element of sound groundwater management.

The proposed schedule for all tasks under this component is from November 2023 through April 2026, with final reporting to be completed by June 2026. Success in securing land access agreements and permits have been identified as feasibility limitations for Task 1, which will also potentially affect Tasks 3, 4, 5, and 7. Provided that Barka Slough vegetation trimming is completed outside of bird nesting season, no feasibility limitations are identified for Task 2. Additional feasibility limitations identified for Tasks 3 and 5 include any well construction constraints encountered. Quarterly monitoring would be conducted consistent with the Basin's current groundwater level monitoring program. Because the groundwater level monitoring network is already in place, no feasibility limitations are identified for Task 6.

A description of the proposed Component's goals, objectives, and needs, and how they will be met by the proposed Component.

The goal of monitoring, maintenance, and expansion of the monitoring networks is to provide regular and accurate data collection to inform the SABGSA on the current Basin groundwater conditions and to fill identified data gaps. Specific objectives of this component include ensuring continuity of groundwater level tracking and reporting, maintaining access to wells in the monitoring network, increasing the well density and frequency of data collection in key locations, creating a more complete picture of well conditions in the monitoring network, and improving the understanding of interconnected surface water and groundwater in Barka Slough. Component needs include funding for quarterly reporting, better access to specific monitoring wells, additional monitoring wells and transducers, better data on well construction and RPEs, and better data on Barka Slough. The proposed component will meet these goals, objectives, and needs by supporting groundwater level tracking, improved well access through maintenance activities, installation of new monitoring wells and transducers, data collection on well construction and RPEs, and installation of stream gages and piezometers in Barka Slough.

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

DWR comments on the Basin's GSP have not been received, and the SABGSA is not aware of deficiencies that need to be addressed. The proposed component is designed to fill data gaps identified in the GSP related to well access, spatial and temporal frequency of data collection, well conditions, and interconnected surface water and groundwater. Addressing data gaps will assist in the implementation of the GSP by reducing uncertainty and improving understanding of Basin conditions so that better information is available to the SABGSA for managing the Basin and considering the efficacy of the initial SMCs that have been selected. The data collected and analyzed through the monitoring network will be used to quantify the benefits of any P&MAs implemented in the Basin and to help determine whether additional P&MAs are needed to avoid undesirable results.

3. **Supporting Maps in Attachment 4**

Figure 1 (page 1): Basin map with land use demonstrates Agrarian nature of Basin
Figure 2 (page 2): Underserved community/Los Alamos
Figure 3 (page 3): Groundwater-dependent ecosystems
Figure 4 (page 4): Monitoring wells around Barka Slough in the western portion of the Basin

Figure 5 (page 5): Proposed stream gage locations
Figure 6 (page 6): Data gap areas
Figure 7 (page 7): Groundwater level monitoring network
Figure 8 (page 8): Wells with transducers installed
Figure 9 (page 9): CalEnviroScreen Underrepresented Community – Entire San Antonio Basin

4. **Underrepresented Community Statement**

Although not formally recognized as a state defined SDAC, evidence suggests the population base in the Basin is largely comprised of underrepresented, undocumented farmworker families as depicted (Figure 2 on page 2 of Attachment 4). Within the basin lies only one unincorporated town called Los Alamos, population 1,839. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby Los Alamos, the nearby Santa Ynez Valley, and the Santa Maria Valley" (homepage statement on Olga Reed Elementary Website). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household income. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4). CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4).

$795,000 of this grant will fund the monitoring, maintenance, and expansion of the monitoring networks component. This monitoring component will assist in the implementation of the GSP by providing up-to-date data to be used toward achieving the sustainability goal described in the GSP. Transparent, reliable data is needed to determine which P&MAs are needed to bring the basin into sustainability, providing a sustainable water supply for all.

5. **Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells**

The monitoring component will improve the collection of data that will be used to track the Basin's progress toward sustainability, which will ultimately benefit all groundwater users in the Basin, including small water systems and individuals with private shallow domestic wells. For example, sustainable groundwater management will benefit the small water system serving the community of Los Alamos (Los Alamos Community Services District or LACSD) by helping increase water levels in its wells and therefore preserve the water supply for the community. This is becoming a critical issue as water levels decline, and as a result, LACSD has had to reduce pumping to maintain water levels above the top of screen intervals. Although there are very few domestic wells in the Basin, sustainable groundwater management will benefit them by reducing negative impacts on water quality and water quantity.

The SAFER Program is designed to ensure that Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. Sustainable groundwater management as implemented through the GSP and tracked through the monitoring network will help achieve these aims by providing dependable water sources throughout the Basin.

6. **Describe how the proposed Component addresses the Human Right to Water**

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The monitoring component will provide critical data for measuring the Basin's progress toward attaining sustainability and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 2: SURVEY AND INVESTIGATE POTENTIAL GDE'S IN THE BASIN

COMPONENT 2: GROUNDWATER DEPENDENT ECOSYSTEM INVESTIGATIONS

A. General

1. Complete Component Description

Complete, detailed description of the overall proposed Project or Component

The purpose of this component is to survey and investigate potential groundwater dependent ecosystems (GDEs) in the Basin and collect additional data about Barka Slough (Slough; the Basin's largest identified GDE) to fill identified data gaps. Addressing these data gaps is necessary to reduce uncertainty and improve understanding of GDEs and potential interconnected surface water and groundwater. This will assist the SABGSA in considering the efficacy of the initial SMCs that have been selected for the Basin.

As part of the development of the Basin GSP, the SABGSA selected initial P&MAs to fill the identified data gaps. These include:

- Site Access and Planning
- Survey and Investigate Potential GDEs
- Review USGS Groundwater Model, Update Hydrologic Conceptual Model, and Develop Water Budget for Barka Slough

Task 1: Site Access and Planning

Task 1 includes pre-implementation activities that will need to be completed as a prerequisite to implementing Task 2. Access agreements will need to be secured with landowners where potential GDEs will be surveyed, including coordinating access to Barka Slough with VSFB. A scope of work, pre-bid, and bid documents will be prepared to facilitate selection of a contractor for field surveys under Task 2, and a site walk will be conducted.

Task 2: Survey and Investigate Potential GDEs

A preliminary assessment was performed during the development of the Basin GSP to evaluate the potential that GDEs are present within the Basin. The assessment methodology was based on guidance developed by The Nature Conservancy (TNC, 2019). Based on the results of the screening level assessment, it was determined that GDEs likely exist within Barka Slough and some additional isolated areas within the Basin (see Figure 3 on page 3 of Attachment 4). Although mapping of potential GDEs was conducted during development of the Basin GSP, no biological or habitat surveys were completed to verify the existence of the potential GDEs or to characterize GDEs in Barka Slough.

At present there is insufficient data available to confirm the nature and spatial extent of GDEs within Barka Slough and elsewhere in the Basin or to determine the degree to which they are supported by surface water and/or groundwater. To address this data gap, the SABGSA is requesting funding to perform a habitat survey in Barka Slough and further investigate potential GDEs through field surveys elsewhere in the Basin. Field surveys of potential GDE locations will identify potential surface water sources, and piezometers will be installed to assess groundwater conditions and contribution to habitats. An inventory will be prepared describing each GDE's species composition, habitat condition, and ecological value. The information collected will be used to further identify GDEs that could be affected by pumping and groundwater management activities and to understand groundwater and surface water conditions in Barka Slough so that SMCs can be adjusted if needed to avoid impacts to GDEs.

Task 3: Review USGS Groundwater Model, Update Hydrogeologic Conceptual Model, and Develop Water Budget for Barka Slough.

Following the submittal of the Basin GSP, the USGS completed the development of a groundwater model as part of a multi-year groundwater study in the Basin (San Antonio Creek integrated hydrologic model [SACIM]). The groundwater model and related information were not available for use during the preparation of the Basin GSP, and therefore, a spreadsheet tool was used to develop the water budgets for the Basin and to assess P&MAs needed to bring the Basin into sustainability. While a groundwater model would be preferred, the spreadsheet tool can be used for this purpose in accordance with §354.18 of SGMA regulations.

Using the spreadsheet tool, water budget components for the Basin were developed using various publicly available data sets organized in a tabular accounting methodology by water year. A summary of the data sources used for developing the water budgets and a description of each data set's qualitative data rating was presented in the Basin GSP. A qualitative discussion of the estimated level of uncertainty associated with each data source was described for each water budget term. This discussion focused on the level of uncertainty and the confidence in the data, as well as the assumptions and interpretations of the information used to develop the water budgets. The level of uncertainty can significantly affect the SABGSA's ability to sustainably manage the Basin. The calculated and modeled values are generally of medium quality. Data derived from other sources, including water duty factors for irrigated crops for the estimation of agricultural pumping and related irrigation return flow, are less certain and therefore of medium/low quality

(with the highest uncertainty). In addition, there is considerable uncertainty about how much groundwater and surface water are discharging into Barka Slough and how pumping in the Basin may impact the Slough.

The SABGSA understands that the USGS, in cooperation with the SBCWA and VSFB, are planning to assess the effects of future climate scenarios in the Basin on Barka Slough. This assessment will extend the SACIM three years from water years 2019 through 2021 and will be updated using available groundwater level, streamflow, climate, land use, and groundwater pumping data. Two 30-year future climate scenarios (water years 2022 through 2051) will be developed to extend and run the SACIM. Results from the future climate scenarios will be evaluated to identify potential climatic effects on streamflow, groundwater flow, recharge, and other hydrologic conditions in Barka Slough, and potential effects on riparian species. The SABGSA also understands the proposed scope of work will include the installation of one stream gage along San Antonio Creek (upstream of Barka Slough) and the reactivation of a second stream gage along Harris Creek. VSFB would be responsible for costs including installation, maintenance, and monitoring of the stream gages through September 2023.

To improve the accuracy of the annual groundwater pumping estimates and Basin water budget calculations in future years, and to assess the water budget for Barka Slough, the SABGSA is requesting funding to review and utilize the SACIM and results of the future climate scenarios. A peer review of the SACIM will be conducted to evaluate the groundwater model, compare the hydrogeologic conceptual model (HCM) developed for the SACIM to the Basin HCM described in the GSP, and update the Basin HCM as appropriate. A water budget will be developed for Barka Slough using the SACIM and the revised Basin HCM.

An explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility.

Further investigation of Basin GDEs directly serves ecological communities and environmental interests in the Basin. Understanding the presence and condition of GDEs and the interactions between surface water and groundwater enables the SABGSA to manage groundwater more sustainably for the benefit of all Basin water users.

SMCs, including measurable objectives (MOs) and minimum thresholds (MTs), have been established for all five applicable sustainability indicators by measuring relevant conditions at RMSs located across the Basin. This component will provide the SABGSA and Basin stakeholders with sufficient data to confirm or revise existing Basin SMCs, MOs, and MTs as they relate to maintaining existing Basin GDEs. While these studies do not directly impact MOs and MTs, they will help the SABGSA determine the need for implementing P&MAs to benefit the Basin.

The proposed schedule for both tasks under this component is from November 2023 through April 2026, with final reporting to be completed by June 2026. Land access is the primary feasibility limitation identified for Task 1, which would also affect Task 2. Availability of the SACIM from the USGS and the completion schedule of the future climate scenarios assessment are the primary feasibility limitations identified for Task 3.

A description of the proposed Component's goals, objectives, and needs, and how they will be met by the proposed Component.

The goal of this component is to fill the data gaps around GDEs and interconnected surface water identified in the GSP to help the SABGSA manage the Basin sustainably. The specific objectives of this component are to develop an adequate data set to reasonably confirm the presence and nature of Basin GDEs, to update the Basin HCM, and to develop a water budget for Barka Slough. Component needs include field survey data for potential GDEs in Barka Slough and other areas around the Basin, and access to the USGS SACIM and future climate scenarios. The proposed component will meet these goals, objectives, and needs by supporting data collection and analysis that will help fill data gaps identified in the Basin GSP. Ultimately, this will enable the SABGSA to design an appropriate GDE and interconnected surface water monitoring plan, confirm or revise existing SMCs that will maintain Basin GDEs, and evaluate potential impacts to GDEs that could result from various groundwater use or climate scenarios.

2. **2B – <u>Planning Project/Components Only</u>: Description that the planning component is well-coordinated.**

DWR comments on the Basin's GSP have not been received, and the SABGSA is not aware of deficiencies that need to be addressed. The proposed component is designed to fill data gaps identified in the GSP related to GDEs and interconnected surface water and groundwater. Addressing data gaps will assist in the implementation of the GSP by reducing uncertainty and improving understanding of Basin conditions so that better information is available to the SABGSA for managing the Basin and considering the efficacy of the initial SMCs that have been selected. The component will confirm the nature and spatial extent of Basin GDEs and the degree to which they are supported by surface water and/or groundwater. This information, along with the updates to the Basin HCM and development of a water budget for Barka Slough, will be used to further identify GDEs that might be affected by pumping and groundwater management activities and to understand groundwater and surface water conditions in Barka Slough so that SMCs can be updated if necessary to avoid impacts to GDEs. The data collected and analyzed can also be used to quantify the

benefits of any P&MAs implemented in the Basin to benefit GDEs and to help determine whether additional P&MAs are needed to avoid undesirable results.

3. Supporting Maps in Attachment 4

Figure 3 on page 3 of Attachment 4 shows the location of Barka Slough and other potential GDEs to be investigated through this component.

4. Underrepresented Community Statement

Although not formally recognized as a state defined SDAC, evidence suggests the 2,168-population base in the Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population 1,839. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby Los Alamos, the nearby Santa Ynez Valley, and the Santa Maria Valley" (see Figure 2 on page 2 of Attachment 4). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household poverty level. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4). CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (see Figure 9 on page 9 of Attachment 4).

A $175,000 portion of this grant will fund the GDE and Barka Slough characterization component. This component will benefit the underrepresented community by providing up-to-date data to be used for better groundwater management to achieve the sustainability goal described in the GSP. Refined data will help ensure that groundwater management programs, including those affecting groundwater pumping rates, do not negatively impact other water users, including GDEs. This will allow the SABGSA to determine which P&MAs are needed to bring the Basin into sustainability and provide a reliable water supply for all.

5. Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells

The GDE component will improve the collection of data that will be used to track the Basin's progress toward sustainability, which will ultimately benefit all groundwater users in the Basin, including small water systems and individuals with private shallow domestic wells. For example, sustainable groundwater management will benefit the small water system serving the community of Los Alamos (Los Alamos Community Services District or LACSD) by helping increase water levels in its wells and therefore preserve the water supply for the community. This is becoming a critical issue as water levels decline, and as a result, LACSD has had to reduce pumping to maintain water levels above the top of screen intervals. Although there are very few domestic wells in the Basin, sustainable groundwater management will benefit them by reducing negative impacts on water quality and water quantity.

The SAFER Program is designed to ensure that Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. Sustainable groundwater management as implemented through the GSP will help achieve these aims by providing dependable water sources throughout the Basin without compromising the integrity of GDEs.

6. Describe how the proposed Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The GDE component will provide critical data for measuring the Basin's progress toward attaining sustainability without compromising the integrity of GDEs and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 3: WATER USE EFFICIENCY PROGRAMS AND LACSD WELLFIELD PUMPING COORDINATION

COMPONENT 3: WATER USE EFFICIENCY PROGRAMS AND LACSD WELLFIELD PUMPING COORDINATION

A. General Description

1. **COMPONENT GENERAL DESCRIPTION:**

Funding is being requested by the SABGSA to develop and expand water use efficiency programs in the Basin as outlined in the GSP. This effort is intended to reduce the amount of groundwater that is extracted from the Basin. This component also includes a study of localized drawdown impacts in the Basin that are occurring from a concentration of pumping operations in the vicinity of the LACSD wellfield. This study includes exploring strategies for implementing a groundwater pumping management program to improve the drawdown conditions in the Basin and mitigate the impacts to the LACSD water supply system. The three primary tasks are:

Task 1: Water Use Efficiency Program Design
Task 2: LACSD Wellfield Pumping Coordination/Offsite Well Impact Mitigation Program Design
Task 3: Stakeholder Education and Outreach

Task 1: Water Use Efficiency Program Design:

Water use efficiency programs will be developed and expanded to reduce pumping demand in the Basin. Urban and agricultural water use efficiency programs are described as management actions in the GSP. The water use efficiency management actions for this Program are to be developed for implementation by municipal, agricultural, and domestic pumpers. The Water Use Efficiency Program's described as either Urban or Agricultural, are as follows:

Urban Water Use Efficiency Programs: Implementing Initiatives that promote increasing water use efficiency by achieving reductions in the amount of water used for municipal, commercial, industrial, landscape irrigation, and aesthetic purposes. These programs can include incentives, public education, technical support, and other efficiency-enhancing programs. Effective urban water use efficiency measures could include:

- Outreach and education to high water users
- Meter audits to proactively detect leaks (e.g., leak reports)
- Developing a rebate-like program for future implementation (no rebates funded with SGM funding), promoting water-use efficiency fixtures (e.g., clothes/dish washers) and landscape conversion programs
- Water awareness outreach events (e.g., library/outdoor market events)
- U.S. Environmental Protection Agency's WaterSense Program Alignment (e.g., Fix-a-Leak Week)

This effort would be conducted by the local water utility (LACSD) with cooperation from the SABGSA.

Agricultural Water Use Efficiency Programs: Implementing water efficiency programs are intended to promote decreasing water use and increased irrigation efficiency and achieving reductions in the amount of water used for agricultural irrigation. Groundwater pumping from the Basin for agricultural irrigation represents a significant demand. For this reason, the SABGSA will strongly encourage and incentivize pumpers to implement the most effective water use efficiency methods that are feasible for the crops being grown. It is anticipated that industry leaders in the Basin will assist the SABGSA in facilitating workshops and technical training programs and support the implementation of other programs designed to communicate what the latest best water use practices are for their industry. These programs can include incentives, public education, technical support, training, implementation of best water use practices, and other efficiency-enhancing programs. Effective best water use practices may include:

- Enhanced efficient irrigation/best water use practices that minimize water losses
- Irrigation audits and delivery of technical support for optimizing water use
- Development of new weather stations and automated data for helping growers to optimize use of frost protection
- Conversion to non-water intensive methods for frost protection
- Increased use of organic soil amendments (including biochar, compost, vermicompost) to improve health of soils, plant health, and reduce water use
- Soil moisture monitoring to optimize the amount and timing of irrigation
- Possible conversion from high water demand crops to lower water demand crops

Water use efficiency programs will include collaboration with the SABWD and utilize public outreach to educate groundwater pumpers and other basin wide community stakeholders of associated BMP's.

Task 2: LACSD Wellfield Pumping Coordination/Offsite Well Impact Mitigation Program Design

Based on the review of available well location data, it appears that the LACSD municipal wells are in an area that coincides with the presence of numerous agricultural irrigation wells (compare Figures 10 and 11 on pages 10-11 of Attachment 4). Pumping from this area of concentrated wells appears to be resulting in localized and lower groundwater levels in the aquifer. The SABGSA has identified this as a concern and would like to explore strategies for implementing a groundwater pumping management program to improve conditions in this area in order to mitigate the impacts of nearby pumping on the LACSD water supply system.

Source water from LACSD is supplied from four municipal wells that are located within the LACSD boundary (Figure 10 on page 10 of Attachment 4). The wells range in depth from approximately 500 feet (ft) to 800 ft. Each of the wells is completed in the Paso Robles Formation (page 14 of Attachment 4). The combined pumping from the subject wells is approximately 250,000 gallons per day (gpd). Each of the wells is operated through a Supervisory Control and Data Acquisition (SCADA) system. One feature of the SCADA system is that it provides continuous information on static and pumping depths within the subject wells. The LACSD's water wells are equipped with variable frequency drives that allow the LACSD to control the pumping rate at the wells and adjust accordingly to the community's water needs. As described in the GSP, low groundwater elevation contour lines near the town of Los Alamos indicate a groundwater pumping center may exist in this area. Static and pumping levels in LACSD wells are close to the top of well screens and it has been necessary to adjust the pumping rates in these wells in order to maintain water levels above well screens.

The LACSD has been reviewing its pumping schedules and initiated discussions with the surrounding agricultural pumpers and SABGSA to explore the potential for implementing a coordinated pumping schedule program to assess the feasibility of distributing pumping from all wells in the affected area to address this localized issue and raise static and pumping levels at LACSD wells. The objective of this task is to develop pumping schedule program with neighboring agricultural pumpers.

Task 3: Stakeholder Education and Outreach

Climate change, population growth, land development, and agricultural use impact the Basin's water supply. Changing water use patterns of Basin pumpers requires educational programming. Water use efficiency program campaigns will be widely publicized through public forums - for both urban and agricultural sectors. Public outreach meetings, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform groundwater pumpers and other basin-wide community stakeholders of the current and projected Basin conditions and the need for addressing data gaps to meet GSP goals. SABGSA will conduct three years of Basin-wide stakeholder and community outreach, as needed, as part of the development of these Programs.

LACSD will also outreach to affected pumpers/stakeholders to coordinate a pumping schedule.

Explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility for water use efficiency programs:

The primary industry in this Basin is agriculture and its base population are farmers. Total Basin population is 2,168 and will be served by implementation of these water use efficiency program(s). The volume of groundwater that is pumped from the Basin in recent years is more than the estimated sustainable yield of about 8,900 AFY. Bringing the basin into sustainability is the only feasible approach in managing groundwater levels, and creating greater water reliability for agricultural, domestic, and municipal users. There are no feasible options for bringing other sources of water into the basin to offset pumping demands.

The LACSD provides a potable and drinkable water supply to approximately 1,800 residents, thus 84% of the residents in the entire Basin will benefit from Wellfield Pumping Coordination/Offsite Well Impact Mitigation Project. The objectives and implementation timeline for this project are to work with community members to:

Water Use Efficiency Program

2023 – 2025: Conduct workshops to discuss options for improving water use efficiency
2024 – 2026: Working with the CARCD and NRCS, implement most feasible water use efficiency measures (Task 1)

LACSD Pumping Coordination Program

2023 – 2025: Conduct outreach to landowners located near LACSD wells and identify options for scheduling pumping to reduce interference with LACSD wells
2025 – 2026: Implement an agreed upon pumping schedule that alleviates the drawdown of the pumping center currently occurring

2024 – 2026: Monitor the effectiveness of water use efficiency measures and revised pumping schedules by measuring water levels in accordance with the ongoing groundwater monitoring program. Determine if the yield at LACSD wells is maintained at acceptable levels.

This Tier 1 GSP implementation project will benefit the Los Alamos community by instituting a pumping schedule that reduces well interference. Improving and optimizing soil water holding capacity when needed by crops via the use of water use efficiency measures should result in reduced pumping. These combined programs will improve Basin conditions, improve water supply reliability for the community, and increase the likelihood that undesirable results will be avoided., minimum thresholds will not be reached, and measurable objectives will be achieved with the 20-year GSP implementation timeline.

Implementation of water use efficiency and best management practices are highly feasible and have shown to reduce water usage by up to 20 percent or more in many areas. Assuming basin-wide implementation of these programs achieves a 10 percent reduction in pumping, the resulting benefit would be approximately 2,360 AFY for this Basin.

A description of the Component's goals, objectives, and needs – and how they will be met
The overall goal for implementation of this component is greater water sustainability for the Basin. The objective is to facilitate an overall reduction of the volume of groundwater that will be pumped from the Basin. This action will contribute to the mitigation of the estimated storage deficit within the Basin. The SABGSA estimates that $155,000 is needed to implement this Component.

Explanations of measurable objectives and benefits from implementation of this Component include:
Groundwater Elevation Measurable Objectives: Water use efficiency programs will focus on reducing pumping through water conservation. Less pumping will result in higher groundwater elevations.
Groundwater Storage Measurable Objectives: This measurable objective is based on total pumping in the Basin. Therefore, the implementation of water use efficiency programs will focus on identifying best practices that will reduce pumping and will help achieve the goal of reducing total extractions to the long-term sustainable yield.
Land Subsidence Measurable Objectives: Reducing pumping through water conservation, thereby reducing the pumping stress on the local aquifer(s) and reducing the potential for subsidence.
Depletion of Interconnected Surface Water Measurable Objective: Less pumping will result in higher groundwater elevations which will improve the amount of groundwater discharging into Barka Slough and benefits GDEs.
Degradation of Water Quality: Improvements to water quality are expected as a result of reduction of fertilizer use and irrigation return flows to the aquifer, thereby limiting the amount of primarily nitrate and TDS infiltrating to the aquifer. No permitting or regulatory process is needed for the development and implementation of urban and agricultural water use efficiency programs and coordinating pumping schedules in the vicinity of the LASCD production wells.

2B- Description of well-coordinated planning component
This management action is critical for the successful implementation of the SAB GSP. Initial Water Use Efficiency program development actions are directly linked to the SMCs and will help the Basin achieve the groundwater elevation, groundwater storage, land subsidence, and interconnected surface water measurable objectives.

The water use efficiency program described in Task 1 may include collaboration with the LACSD, Cachuma RCD, and NRCS to assist in developing guidance and education and outreach materials to be shared with local landowners and community members. Task 2 efforts to develop a pumping schedule that reduces the interference effects of irrigation pumping on the LACSD wells will be coordinated with the local landowners and LACSD. These coordination efforts will ensure that implementation of this Component will be broadly accepted by Basin stakeholders.

3. Supporting Items in Attachment 4
- Figure 1 (page 1): Basin land use map
- Figure 2 (page 2): Underserved community/Los Alamos Demographics
- Figure 9 (page 9): CalEnviroScreen Underrepresented Community – Entire San Antonio Basin
- Figure 10 (page 10): Well Density Municipal – LACSD, as it pertains to area of congested pumping in Los Alamos
- Figure 11 (page 11): Well Density Agriculture, as it pertains to area of congested pumping near LACSD wells
- Figure 12 (page 12): Well Density Domestic for the town of Los Alamos
- Figure 13 (page 13): Groundwater Elevation Contours – San Antonio Basin, Fall 2021
- Table 1 (page 14): Principal Aquifer Hydraulic Properties

4. Underrepresented Community Statement

Although only a small portion of the Basin is recognized as a state defined SDAC, evidence suggests the population base in the Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population of 1,839, which is 85% of the population of the entire Basin. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby farms" (homepage statement on Olga Reed Elementary Website). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household poverty level. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines, which is attached on pages 15-18 of Attachment 4.

CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the Basin falls within the high priority score (see Figure 9 on page 9 of Attachment 4).

A $155,000 segment of this grant will fund the development of a Water Use efficiency Program in the Basin and development of a pumping schedule for wells located near LACSD. This program will benefit the underrepresented Basin community by bringing the Basin into sustainability, enabling water supply reliability for all. Other benefits include higher groundwater levels, improved well production reliability at LACSD wells, and improved likelihood of achieving sustainability goals over the 20-year GSP implementation period.

5. Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells

A water use efficiency program and the pumping schedule program will benefit the small water system (LACSD) that serves the City of Los Alamos and benefit domestic and agricultural wells located in the Basin (Figures 10, 11, 12 on pages 10-12 of Attachment 4). Studies have shown that water use efficiency programs can reduce overall groundwater extraction by 20% and it will enhance implementation of the GSP, improve water levels, and diminish the possibility of reduced supply. Water use efficiency is becoming a critical issue as water levels decline in the basin and, as a result, the LACSD has had to reduce pumping to maintain water levels above the top of screened intervals. There are very few domestic wells in the Basin, but it is expected that reduced extraction in the basin would improve water levels in these wells as well.

SAFER is designed to ensure Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. If the water use efficiency program is implemented, the resulting water conservation will involve and benefit the entire community, further supporting the overarching goals of the SAFER program.

6. Describe how the proposed Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The water use efficiency(s) component will provide a means to implement the GSP, which will ultimately reduce pumping in the Basin and provide progress toward attaining Basin sustainability and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 4: GROUNDWATER PUMPING FEE PROGRAM

COMPONENT 4: GROUNDWATER PUMPING FEE PROGRAM

A. General Description

1. COMPONENT GENERAL DESCRIPTION:

Funding is being requested by the SABGSA to implement a Tier 1 GSP project to develop and implement a Groundwater Pumping Fee Program and a well registration and metering program. Pumping fees are intended to fund SABGSA's ongoing Basin monitoring and GSP implementation. Implementation of a Well Registration and Metering Program is intended to address data gaps associated with the existing monitoring network and support the Groundwater Pumping Fee Program by understanding current pumping cycles and water use.

The groundwater pumping fees to be collected would be used to fund the costs of SABGSA operations, monitoring of the Basin, and for the implementation of the projects/management actions described in the GSP. Implementation of this program will benefit the rural, agrarian community within the Basin, including town of Los Alamos by bringing the Basin into sustainability, enabling water supply reliability for agricultural, municipal, and rural residential water users. The program is intended to support sustainability by avoiding undesirable results and exceeding minimum thresholds and achieving measurable objectives within the next 20 years.

As part of the GSP implementation process, the SABGSA will explore pumping fee alternatives intended to encourage water conservation and reduced pumping. The pumping fee program will cover SABGSA operational costs and generate funding for monitoring of the Basin and the implementation of management actions and potential future projects. Development and implementation will involve much stakeholder outreach. Several pumping fee alternatives will be considered.

The pumping fee program will rely initially on estimated water use derived from information provided by water users including number of acres, crops grown, and crop water use factors. The SABGSA is also investigating the use of satellite data to estimate water use. The pumping fee program will eventually rely upon metered water use as the well registration and metering program is implemented over time by basin groundwater users.

Tasks that will be conducted include:
Task 1: Pumping Fee Regulatory Policy Development
Task 2: Well Registration and Metering Policy Development
Task 3: Flow Meter Installation Program
Task 4: Plan Development for the Groundwater Pumping Program
Task 5: Plan Development for Well Registration and Metering Program
Task 6: Engagement and Outreach Implementation

Explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility

The primary industry in this Basin is agriculture and its base population are farmers. Total Basin population is estimated at 2,168 and the population center of the Basin resides within the town of Los Alamos, population 1,839. This entire population are served by this work. The Basin does not have any large municipalities to assist with funding for any planning or construction projects, and all match funding for SGM projects to date have been from SABWD assessment fees. Thus, developing and enacting a Basin management funding source is essential for the SABGSA to function and enact the GSP.

A groundwater pumping fee program provides funding for the SABGSA to implement the GSP and create sustainability in the Basin. Therefore, it is considered feasible to implement. Minimum thresholds are not applicable to this planning and development component.

Design for the program(s) will begin upon execution of grant agreement in November 2023. Associated environmental and design work should be fulfilled between November 2023 –April 2024. Legal counsel will be required for the entire duration of the grant cycle to advise on all regulatory and statutory processes. Implementation of the flow meter construction process will occur within 12 months of DWR's acceptance of the SAB GSP. Data gathering and outreach will begin in December 2022, with adoption of a well registration ordinance, and continue throughout the grant cycle to contribute updates to inform water initiatives and water use. As such, stakeholder outreach must start immediately in December 2022, and will ensue for the 3-year grant cycle to inform stakeholders and the public and promote these program(s).

Task 1: Pumping Fee Regulatory Policy Development
Develop program policies through an environmental lens, creating a regulatory framework, performing CEQA analysis, and comprehensive legal review. Guidelines and a regulatory framework will be developed to support implementation, which may include a system for reporting and accounting for water conservation initiatives, voluntary irrigated land fallowing (temporary and permanent), stormwater capture projects, or other activities that individual pumpers may elect to implement. In conjunction with the development of the Groundwater Pumping Fee Program, the SABGSA will ensure that any charges that the SABGSA plans to place on groundwater extraction will be carefully reviewed by legal counsel to determine if those charges are appropriate, and what regulatory/statutory processes will be required for them.

Task 2: Well Registration and Metering Policy Development
As a precursor to Task 6 (plan development for the well registration and metering program), regulatory parameters and policy development will require environmental and legal review. SABGSA will confer with legal specialists to ensure the program meets regulatory and statutory compliance. The SABGSA will ensure all work is compliant with CEQA. Legal counsel will carefully review and further advise on regulatory/statutory policies.

Task 3: Flow Meter Installation Program
Flow meters will be required with implementation of the GSP. All non-de minimis wells in the Basin will need to be equipped with meters, or an approved alternative form of extraction measurement. Agricultural irrigators have voiced concerns regarding the costs associated with the requirement for meters, causing slow adoption of meter installations. To motivate pumpers, this SABGSA program, funded by the Round 2 DWR grant, will provide information about programs offering incentives for flow meter installation. Costs associated with individual measurement devices are to be borne by the well owner/operator; however, costs can be subsidized through rebates offered by the County of Santa Barbara.

Task 4: Plan Development for the Groundwater Pumping Fee Program
Initial development of the program will be focused on program design and policy framework. As part of program development, the SABGSA will determine the most effective and equitable fee and incentive structure. Public outreach meetings, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform the groundwater pumpers and other basin-wide community stakeholders of the current and projected basin conditions and the need for addressing data gaps to meet these GSP goals. Measurable objective and minimum threshold are not applicable because project is for planning only.

Task 5: Plan Development for the Well Registration and Metering Program
A Well Registration and Well Metering Installation Program component will be implemented as part of the Groundwater Pumping Fee Program. Well registration will establish a relatively accurate count of all the active wells in the Basin, including an accurate location of each well. Currently, we have estimated as many wells and locations as possible, but this program will help expand and solidify our data (Figures 10, 11, 12 on pages 10-12 of Attachment 4). Groundwater production wells, including wells used by de minimis pumpers, will be required to be registered with the SABGSA. Extraction measurements by private well owners within the Basin have not been heretofore required. Extractions from these wells, which are used primarily for irrigated agricultural operations, will be required to be metered and extractions reported. The information acquired through well metering will be critical to the SABGSA's ability to make informed adaptive management decisions regarding ensuring that chronic lowering of groundwater levels or depletion of supply during periods of drought can be offset by increases in groundwater levels or groundwater in storage during other periods.

Task 6: Engagement and Outreach for Implementation
Public outreach meetings, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform groundwater pumpers and other basin-wide community stakeholders of the current and projected basin conditions and the need for addressing data gaps to meet these GSP goals. Three years of Basin-wide stakeholder and community outreach will continue as part of the development of these Programs.

Description of the proposed Components goals, objectives, and needs
The overarching goal of this Groundwater Pumping Fee Program, developed in conjunction with the Well Registration and Metering Installation Program, is to generate fees that will be used to implement the GSP and meet sustainability

goals for the basin. The primary objectives for creating a Groundwater Pumping Fee Program in conjunction with the Well Registration and Metering Installation Program are:

a. Create a base funding source for SABGSA to use to manage sustainability actions outlined in the GSP.
b. To gather more information from pumpers (data gaps) in the Basin to understand current usage and manage sustainability by:
    I. Registration of all wells in the basin for location mapping and monitoring
    II. Well metering to provide extraction data needed for the pumping fee program

Achieving these objectives will provide essential data on water use and a funding source for the SABGSA that is necessary to continue implementing essential projects outlined in the GSP. Comments have not yet been received by DWR, but this funding source will also help in the coordination and planning work essential in that process. The entire GSP Tier 1 Program aims to fulfill the needs of the community and the SABGSA by bringing the Basin into sustainability and creating water reliability for all Basin users.

How program satisfies goals, objectives, and needs

As a critical element of the GSP implementation, the Groundwater Pumping Fee Program is expected to mitigate a portion of the estimated groundwater in storage deficit by motivating groundwater users to reduce pumping or pump groundwater supplies in a sustainable fashion. During water year 2018, there was an estimated 12,795 acres of irrigated cropland in the Basin with a corresponding water demand of approximately 21,200 acre-feet (AF). Based on an analysis of eight California water agencies, Journal of Environmental Economics and Management [Renwick and Green, 2000], charging customers by volume sends a price signal to customers to use the resource more efficiently. The Groundwater Pumping Fee Program will contribute to the avoidance of undesirable results, including chronic lowering of groundwater levels, reduction of groundwater in storage, and potentially degraded water quality. The benefits to the Basin may vary significantly depending upon levied fees, water year, and available transfers/banked groundwater extraction credits, as described in the GSP.

2B- Description of well-coordinated planning component

DWR comments on the Basin's GSP have not been received, and the SABGSA is not aware of deficiencies that need to be addressed. The primary benefit realized from the Groundwater Pumping Fee Program is the development of the framework required to establish a sustainable funding source for ongoing basin management and monitoring that contribute to sustainability of the basin. Benefits of well registration and well metering are to a) fill data gaps and b) promote orderly use and distribution of water within the Basin. Water withdrawals by user are currently unknown within the Basin. Well registration creates a record of each extractors location that is tied to the metering and pumping fee program. Flow meter installation provides essential data on extraction from specific wells that improves estimates of total groundwater extraction from the basin that can be tracked year to year. Accounting for total groundwater extraction in the basin is required by the GSP and DWR; the data is essential for implementation of programs intended to bring the basin into a sustainable condition. The SABGSA will work cohesively with stakeholders, the County of Santa Barbara, the SABWD, and the LACSD on these programs.

3. Supporting Maps and Tables in Attachment 4

- Figure 1 (page 1): Basin map with land use demonstrates Agrarian nature of Basin
- Figure 2 (page 2): Underserved community/Los Alamos
- Figure 9 (page 9): CalEnviroScreen Underrepresented Community – Entire San Antonio Basin
- Figures 10, 11, 12 (pages 10-12): Well density maps (domestic, municipal, agricultural)

4. Underrepresented Community Statement

Although only a small portion of the Basin is recognized as a state defined SDAC, evidence suggests the population base in the San Antonio Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population of 1,839, which is 85% of the population of the entire Basin. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby farms" (homepage statement on Olga Reed Elementary Website). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are

based solely on household poverty level. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4).

CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4).

A $390,000 segment of this grant will fund the development of a groundwater pumping fee program in the Basin. This program will benefit the underrepresented community by bringing the basin into sustainability, enabling water supply reliability for all. Other benefits include improvements to water quality and higher groundwater levels/supplies for the community based on the anticipated amount of reduced pumping realized once the pumping fee program goes into effect.

5. Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells

A pumping fee and well metering program will benefit the small water system (LACSD) that serves the City of Los Alamos and benefit domestic wells located in the basin (Figures 10 and 12 on pages 10 and 12 of Attachment 4). Studies have shown that extraction fees and well metering reduce overall groundwater extraction and because the funds generated by the fees will enhance the SABGSAs ability to fund implementation of the GSP, water levels in in these wells will improve and diminish the possibility of reduced supply. This is becoming a critical issue as water levels decline in the basin and, as a result, the LACSD has had to reduce pumping to maintain water levels above the top of screened intervals. There are very few domestic wells in the Basin, but it is expected that reduced extraction in the basin would improve water levels in these wells as well.

SAFER is designed to ensure Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. If the metering and extraction fees are implemented, it is anticipated that they would help address these needs.

6. Describe how the proposed Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The groundwater pumping fee program(s) component will provide a means to implement the GSP, which will ultimately reduce pumping in the Basin and provide public accountability for the Basin's progress toward attaining sustainability and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 5: MANAGED AQUIFER RECHARGE PROJECT FEASIBILITY STUDY

COMPONENT 5: MANAGED AQUIFER RECHARGE PROJECT FEASIBILITY STUDY

A. General Information

2. **Complete, detailed description of the overall proposed Component**

This component is a feasibility study to assess the efficacy and cost of various alternatives for enhancing recharge to the groundwater basin through natural and artificial means. Several alternatives were described in section 6 of the GSP, as presented below. The GSP discusses undesirable results that have been identified in the Basin including chronic depletion of groundwater in storage and chronic groundwater level declines. The SABGSA plans to implement several P&MAs to address the undesirable results (see other projects described in this work plan) and would like to determine whether aquifer recharge projects could be cost effective and beneficial to the Basin. Alternatives that will be evaluated in the aquifer recharge feasibility study include the following:

- Stormwater capture and recharge on farmland adjacent to San Antonio Creek and in drainages in upper elevations where aquifer units crop out at the surface
- Los Alamos Community Services District (LACSD) wastewater treatment facility recycled water recharge
- SABGSA participation in the Santa Barbara County Precipitation Enhancement Program in the Basin
- Vandenberg Space Force Base (VSFB) groundwater pumping reduction capital project participation (desalination and/or recharge and recovery) that reduces VSFB pumping in the Barka Slough area
- Barka Slough augmentation project using State Water Project (SWP) or banked supplemental water supplies
- In lieu recharge projects to deliver unused and surplus imported water to offset groundwater extractions from LACSD and agricultural pumpers
- SABGSA technical assistance and financial incentives for high tunnel ("hoop houses") rainwater harvesting for groundwater recharge projects

The feasibility study under this component will consist of two tasks:

Task 1: Managed Aquifer Recharge Feasibility Study

Task 2: Stakeholder Engagement and Outreach

Task 1: Managed Aquifer Recharge Feasibility Study

The feasibility study will further develop and refine the recharge alternatives that were included in the GSP and are listed above. This will include refining data on the timing and amount of water available for recharge, location(s) in the basin, and factors affecting feasibility. Alternatives will then be evaluated using the groundwater flow model prepared by the USGS to determine which alternatives provide the most benefit to the Basin. Benefits would be defined based on the amount of water level increase that would result from the alternative, likelihood of achieving measurable objectives (MOs) within 20 years, and the amount of increased flow into Barka Slough. Following discussion with stakeholders and the SABGSA Board (part of Task 2), preferred alternatives will be selected. Estimated costs and a timeline for implementing preferred alternatives will be developed. A draft and final feasibility report will be prepared and presented to the SABGSA Board.

Task 2: Stakeholder Engagement and Outreach

Public engagement and stakeholder views are very important for understanding local needs and perspectives on potential managed aquifer recharge projects and their impacts and benefits. Under this task, outreach will be conducted to engage stakeholders in helping to select and refine the alternatives to be included in the study. Once initial findings have been developed and evaluated, stakeholders will have an opportunity to review the findings and provide feedback to help the SABGSA Board identify preferred alternatives. Activities under this task may include public meetings, newsletter articles to keep stakeholders informed, and website content.

An explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility

By raising groundwater levels and increasing the volume of groundwater in storage, groundwater recharge projects would serve multiple groundwater users in the Basin including the town of Los Alamos and the associated underserved community, agricultural well owners, and rural domestic well owners. Depending on the amount of water ultimately recharging the groundwater system, the quantity of groundwater discharging into Barka Slough will likely

increase, thus reducing the chances of negative impacts to this important GDE. As groundwater levels and the volume of groundwater in storage are improved, the likelihood that minimum thresholds (MTs) are exceeded would be reduced and the likelihood of achieving MOs over the 20-year plan horizon would be improved throughout the Basin.

The timeline for conducting the groundwater recharge feasibility study would be within the first year after award of funding for this component, estimated to begin around November 2023 and run through June 2024. The timeline for implementing feasible recharge projects would be identified in the feasibility study. No feasibility limitations have been identified for conducting the feasibility study, preparing the report of results, or conducting outreach.

A description of the proposed Component's goals, objectives, and needs, and how they will be met by the proposed Component

The goal of the feasibility study would be to provide the SABGSA with the information it needs to determine if certain aquifer recharge projects, along with other P&MAs being planned, would provide meaningful improvement in Basin water levels and groundwater discharge to Barka Slough and improve the likelihood that undesirable results can be avoided, and MOs achieved within 20 years. The specific objectives are to evaluate the seven alternatives described above and to identify preferred alternatives. Component needs include data on each alternative, its potential benefits and costs, and stakeholder input regarding preferences. The proposed component will meet these goals, objectives, and needs by supporting data collection and evaluation about each alternative and communication with stakeholders and the SABGSA about their preferences.

If specific recharge alternatives are identified in the study as being feasible and beneficial, the associated cost(s) would be identified for the SABGSA. If none of the recharge projects evaluated in the feasibility study are deemed to be implementable and effective at achieving the Basin's sustainability goal at a reasonable cost or provide the desired benefits relative to other P&MAs described in the GSP, the SABGSA will need to redirect its efforts and funding toward other actions.

2B –Description of planning project/component is well-coordinated

DWR comments on the SABGSP have not been received, and the SABGSA is not aware of deficiencies or data gaps that need to be addressed. It is possible that DWR comments on the GSP will be received by the time the feasibility study under this component is started. If DWR comments are received that would alter the approach that is presented in this work plan, the SABGSA would resolve those comments with DWR prior to initiating this component.

Conducting this recharge feasibility study will assist in the implementation of the GSP by determining which recharge-related P&MAs would be most appropriate and cost effective toward achieving the sustainability goal described in the GSP. If specific recharge alternatives are identified in the study as being feasible and beneficial, the associated cost(s) would be identified for the SABGSA. If none of the recharge projects evaluated in the feasibility study are deemed to be implementable and effective at achieving the Basin's sustainability goal at a reasonable cost or provide the desired benefits relative to other P&MAs described in the GSP, the SABGSA will need to redirect its efforts and funding toward other actions. Assuming that feasible project(s) are identified, the study will provide a foundation for quantifying the benefits of future recharge projects in the Basin to benefit groundwater users, underrepresented communities, and GDEs.

3. **Regional and Project/Component map(s) in Attachment 4**
   Figure 1 (page 1): San Antonio Basin Land Use
   Figure 2 (page 2): Underserved Community of Los Alamos
   Figure 9 (page 9): Underrepresented and Disadvantaged Community in the Basin

4. **Underrepresented Community Statement**

Although not formally recognized as a state defined SDAC, evidence suggests the population base in the San Antonio Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population 1,839. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby Los Alamos, the nearby Santa Ynez Valley, and the Santa Maria Valley" (homepage statement on Olga Reed Elementary Website). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household income. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4).

CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4).

$100,000 of this grant will fund the aquifer recharge feasibility study. This recharge feasibility study will assist in the implementation of the GSP by determining what recharge related projects and management actions would be most appropriate and cost effective toward achieving the sustainability goal described in the GSP. Success in Basin recharge is needed to bring the basin into sustainability, providing a sustainable water supply for all.

5. Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells

If recharge projects are identified to be feasible and implementable in the feasibility study and the projects are constructed, the small water system located in the basin that serves the City of Los Alamos (LACSD) would be benefited because the water levels in its wells would increase and avoid the possibility of reduced supply. This is becoming a critical issue as water levels decline, and as a result, LACSD has had to reduce pumping to maintain water levels above the top of screened intervals. There are very few domestic wells in the Basin, but it is expected that recharge projects constructed in the Basin would improve water levels in their wells as well. Figure 12 on page 12 of Attachment 4 shows the density of domestic wells within the Basin that may benefit from recharge projects.

The SAFER Program is designed to ensure that Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. The feasibility study will help determine where recharge projects can be implemented to help address these needs.

6. Describe how the proposed Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The aquifer recharge feasibility study will provide a means to measure water levels in the Basin and is part of GSP implementation. This will ultimately lead to the Basin's progress toward attaining sustainability and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 6: ANNUAL REPORTING AND DMS MANAGEMENT

COMPONENT 6: ANNUAL REPORTING AND DMS MANAGEMENT

A. General

1. Detailed description of the overall proposed Component.

Funding is being requested by the SABGSA for activities related to annual reporting and managing the Data Management System (DMS) for the Basin.

This component includes four tasks:

- **Annual Reporting**: Prepare and submit GSP annual reports complying with SGMA regulations.
- **DMS Management**: Maintain, quality check, and update SGMA-related data in the DMS for use in annual reporting and communications with stakeholders.
- **DMS Enhancements**: Enhance the DMS to enable tracking of data for the well registration, metering, and pumping fee programs.
- **Update Water Usage Factors And Crop Acreages**: Use Land IQ and OpenET to improve the accuracy of annual groundwater pumping estimates in the annual reports.

Task 1: Annual Reporting
SGMA requires the submittal of annual reports to the California Department of Water Resources (DWR) by April 1 of each year following adoption of a GSP. Annual reports are required to include information such as groundwater elevation data collected from the basin's monitoring network, groundwater extractions, surface water supply (currently not applicable to this Basin), total water use, changes in groundwater in storage, and progress toward implementation of the GSP (§ 356.2. Annual Reports). Annual reports are used to measure the effectiveness of the GSP and demonstrate that the Basin is on track to manage groundwater sustainably. The annual reporting task under this component will involve preparation and submittal of GSP annual reports to DWR.

Task 2: DMS Management
The DMS serves as a centralized repository for SGMA-related data, enabling data to be tracked and presented to DWR in the annual reports and used in outreach to Basin stakeholders. The DMS includes data on groundwater levels, groundwater storage, water quality, land subsidence, interconnected surface water, and water use. The DMS management task under this component will involve data entry and quality checking of data stored in the DMS. This data is used for preparing annual reports, tracking data and trends, and communicating with groundwater users and other interested parties in the Basin.

Task 3: DMS Enhancements
Additional funding is needed for enhancements to the DMS to enable tracking of data related to the planned well registration and metering program, and the future groundwater pumping fee program. (See Component 4 for more details on these programs.) Currently, the DMS is used for tracking data related to the five sustainability indicators and preparing annual reports. The SABGSA will be developing a well registration and metering program for non-de minimis groundwater users in the Basin and collecting pumping data to understand water use trends and their potential impacts on the sustainability indicators. Data may be used for future development of a groundwater pumping fee program. Enhancements to the DMS are needed to enable tracking of well registrations and metered pumping data, which will improve water use estimates within the Basin.

Task 4: Update Water Usage Factors And Crop Acreages
The groundwater use element of the annual report (and the water budget presented in the GSP) is subject to an identified data gap. Due to a lack of metered pumping records, the volume of water pumped annually has been estimated based on land use survey data and crop-specific water duty factors. Land use surveys are not available for every year, and uncertainty remains in the estimates of water use from irrigated lands in the Basin and therefore the amount of groundwater pumping needed to meet the crop water requirement. The SABGSA identified this data gap in the GSP and included plans to review and update water usage factors and crop acreages as part of a high-priority management action to address data gaps. Land IQ provides publicly available Statewide Crop Mapping data for DWR; however, the most recent land use spatial data set available is for 2020. Through a paid contract, Land IQ can provide land use and crop classification data on an annual basis using satellite imagery at the Basin scale to improve the accuracy of the agricultural water use estimates and to accurately account for changes in crop categories, distribution, and acreages within the Basin. This land use data can then be combined with another satellite-based method called OpenET to calculate agricultural water use by parcel. OpenET uses Landsat satellite data and weather variables such as solar radiation, air temperature, humidity, wind speed, precipitation to estimate the total amount of water that is transferred from the land surface to the atmosphere through the process of evapotranspiration (ET). The

water usage factor and crop acreage update task under this component will involve using LandIQ and OpenET data to produce accurate groundwater pumping estimates for the annual reports. The OpenET results will be screened by the land use data set to produce an estimate of ET specific to the irrigated crop acreage in the Basin, which will represent a refined estimate of the annual agricultural groundwater extraction. This data will be stored in the DMS and will also be available for purposes such as updates of the Basin water budget and communications with stakeholders.

An explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility.

Annual reporting, including having an up-to-date DMS and accurate annual groundwater use volumes, is used to measure the effectiveness of the GSP and support sustainable groundwater management within the Basin, which will benefit all communities and groundwater uses (including groundwater-dependent ecosystems or GDEs) in the Basin. Filling data gaps such as the agricultural water use estimates is included in the GSP as part of a Tier 1 Management Action, indicating its importance to the Basin communities and the SABGSA. Management and enhancements of the DMS and updating the water usage factors and crop acreages will improve understanding of Basin conditions to aid the SABGSA in evaluating the efficacy of the initially established Sustainable Management Criteria (SMC) and managing the Basin to achieve sustainability. Data from the DMS will be used in the annual reports to describe progress toward meeting measurable objectives and avoiding exceeding minimum thresholds. While reporting itself does not directly contribute to improvements in groundwater levels or similar objectives, the process of monitoring and reporting on groundwater conditions is a fundamental element of sound groundwater management. The proposed DMS management and improvements in reliability for water use estimates will enhance transparency and accountability in groundwater management, benefiting all groundwater users in the Basin.

Annual reports are due by April 1 of each year and cover the previous water year (from October 1 through September 30). Funding is requested for the 2024, 2025, and 2026 annual reports. The SABGSA submitted its first GSP annual report in 2022 as required and is on track to submit its second annual report prior to April 1 of 2023. The annual report task is therefore considered feasible as well as being required for compliance with SGMA regulations.

DMS management is ongoing and requires regular updates to incorporate new data and to perform quality checks on data stored in the DMS. Funding is requested for three years of DMS management, corresponding with the water years for which funding is requested to support annual reporting activities. Because the DMS is already in place, no feasibility limitations on DMS management have been identified.

DMS enhancements are needed to lay the foundation for tracking well registration, metering, and pumping. Data will be entered once these new programs are in place, but software updates and enhancements will be needed in advance of well registration and metering data collection. Funding is requested for the initial DMS enhancements, which can begin immediately. No feasibility limitations have been identified.

Updating water usage factors and crop acreages using Land IQ and OpenET as described above would be implemented on an annual basis for the same three water years as the annual reporting and DMS management tasks. This is an established method of computing agricultural water use that has been adopted by several GSAs in the Central Valley and elsewhere in California and has been accepted by DWR, particularly when metered data is not available. Therefore, it is considered feasible to implement.

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

The goal of the annual reporting component as a whole is to provide timely, accurate reporting on groundwater conditions in the Basin and progress toward meeting sustainability goals presented in the GSP. The specific objective of the annual reports is to assess changing conditions and determine whether projects and management actions implemented by the SABGSA are providing the desired results. Therefore, robust DMS management and improved water use estimates have been identified as critical needs to ensure the success of the component. Together, the annual reports, DMS management and enhancements, and water use estimating tasks will meet the goal of providing accurate information on groundwater conditions and progress to DWR and to stakeholders throughout the Basin. Better accuracy in reporting will support better groundwater management, helping avoid undesirable results and achieve measurable objectives in the Basin.

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

The proposed activities will help fill the identified data gap related to water use by providing refined estimates using metered data for large water users combined with the best available data on agricultural water use from Land IQ and Open ET on an annual basis. This data will be stored in the DMS along with data on groundwater elevations, water quality, land subsidence, and other parameters of interest. Data will be used to prepare the required GSP annual reports. The data and analyses presented in the annual reports will be used to quantify the benefits of any projects

and management actions implemented to-date in the Basin, allowing the SABGSA to determine whether it is advisable to implement additional projects and management actions to avoid undesirable results.

1. Provide a regional and Project/Component map(s).
The full Basin will benefit from the annual reporting component. Current land use conditions as of 2020 are presented in Figure 1 on page 1 of Attachment 4.

2. Explain if the proposed Project or Component will benefit an URC, Tribe or SDAC.

Although not formally recognized as a state defined SDAC, evidence suggests the population base in the San Antonio Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population 1,839. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby farms" (homepage statement on Olga Reed Elementary Website). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household income. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4.

CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4).

$240,000 of this grant will fund the preparation of annual reports, including DMS management and improved water use estimates. Annual reports will benefit the community by providing the transparent, reliable data needed to determine whether additional projects and management actions are needed to bring the basin into sustainability, providing a sustainable water supply for all.

3. Description of how proposed Project or Component will positively impact issues associated with small water systems or private shallow domestic wells.

Annual reporting, DMS management and enhancements, and improved water use estimates will be used to track the Basin's progress toward sustainability, which will ultimately benefit all groundwater users in the Basin, including small water systems and individuals with private shallow domestic wells. For example, sustainable groundwater management will benefit the small water system serving the community of Los Alamos (Los Alamos Community Services District or LACSD) by helping increase water levels in its wells and therefore preserve the water supply for the community. This is becoming a critical issue as water levels decline, and as a result, LACSD has had to reduce pumping to maintain water levels above the top of screen intervals. Although there are very few domestic wells in the Basin, sustainable groundwater management will benefit them by reducing negative impacts on water quality and water quantity.

The SAFER Program is designed to ensure that Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. Sustainable groundwater management as implemented through the GSP and tracked through the annual reporting process will help achieve these aims by providing dependable water sources throughout the Basin.

4. Description of how the proposed Project or Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The annual reporting component will provide public accountability for the Basin's progress toward attaining sustainability and ensuring safe, clean, affordable, and accessible water for all.

COMPONENT 7: Grant Administration, see details in scope of work

COMPONENT 8: GROUNDWATER BASE PUMPING ALLOCATION PROGRAM

COMPONENT 8: GROUNDWATER BASE PUMPING ALLOCATION PROGRAM

A. General Description

1. GENERAL DESCRIPTION: Groundwater Base Pumping Allocation Program

Funding is being requested by the SABGSA for the development of a Groundwater Allocation Program (Base Pumping Allocation [BPA]) to reduce impacts associated with groundwater pumping in the Basin. The volume of groundwater that is pumped from the Basin in recent years is more than the estimated sustainable yield of about 8,900 AFY. This condition has led to a persistent water level declines and a deficit of groundwater in storage. The SABGSA has determined that the volume of groundwater being pumped must be reduced to the sustainable yield of the Basin. To achieve this GSP management action, the SABGSA will develop and implement a regulatory program to equitably allocate a volume of water to be pumped from the Basin annually so that Basin sustainability goals are achieved within 20 years.

The SABGSA anticipates that new policies, ordinances, and regulations will be required to fulfill such a program. Developing and adopting these policies and regulations will require substantial negotiations between the SABGSA member agencies and stakeholders, efforts to define and gain approvals for the scope and detail associated with a regulation will begin with this funding request.

It is anticipated that the Groundwater BPA Program will consist of the following general components: (1) estimation of the basin sustainable yield, (2) determination of pumping allocation amounts (i.e., groundwater extraction credits) for each non-de minimis pumper, and (3) pumping allocation reduction recommendations over the implementation period to reach the estimated sustainable yield by 2042.

Component development tasks include:
Task 1: Environmental Compliance and Standards
Task 2: Development of the Program
Task 3: Stakeholder outreach

Explanation of communities served, measurable objectives, minimum thresholds, plan implementation timeline, and feasibility.

The primary industry in this Basin is agriculture and its base population are farmers and farm workers. Total estimated Basin population is 2,168 and all community members would be served by implementation of a BPA Program. Bringing the basin into sustainability is the only feasible approach in managing groundwater levels, and creating greater water reliability for agricultural, domestic, and municipal users. Minimum thresholds will be determined through this process.

Measurable objectives benefiting from the implementation of this program include:

Groundwater Elevation Measurable Objectives: The Groundwater BPA Program will focus on reducing pumping which will result in higher groundwater elevations.

Groundwater Storage Measurable Objectives: This measurable objective is based on total pumping in the Basin. Therefore, the implementation of the Groundwater BPA Program will focus on reducing pumping and will help achieve the goal of reducing total extractions to the long-term sustainable yield.

Land Subsidence Measurable Objectives: The Groundwater BPA Program will focus on reducing pumping, thereby reducing the pumping stress on the local aquifer(s) and reducing the potential for subsidence.

Depletion of Interconnected Surface Water Measurable Objective: The Groundwater BPA Program will focus on reducing pumping which will result in higher groundwater elevations which will eventually benefit GDEs.

Degradation of Water Quality: Improvements to water quality are expected because of reduction of fertilizer use and irrigation return flows to the aquifer, thereby limiting the amount of primarily nitrate and TDS infiltrating to the aquifer

Program development timeline:

2023 – 2025: Develop baseline pumping program, including stakeholder involvement

2024 – 2025: Develop allocation methodology, policy(s), and regulatory development

2024 - 2026: Complete “ramp down” timeline

2026: Approve formal regulation of BPA Program, continued stakeholder outreach

2026 and beyond: Implement BPA and monitor effectiveness over time. Make program adjustments as needed to achieve sustainability (implementation is not part of this grant request).

Description of the proposed Project or Component’s goals, objectives, and needs

Everyone in the Basin needs water and SABGSA needs to manage groundwater usage in order to achieve the approximate sustainable yield of about 8,900 AFY. The goal of the Groundwater BPA Program is to avoid undesirable results in the Basin, including chronic lowering of groundwater levels, reduction of groundwater in storage, depletion of surface water, and potentially degraded water quality. Peripheral objectives may include potential investment in alternate land uses or taking advantage of the groundwater extraction credits (discussed later) and/or land fallowing management programs. Coordinating this program requires cooperation among stakeholders and reinforcing educational messaging will help achieve this objective.

Description of how the Program satisfies goals, objectives, and needs

Implementation of the Groundwater BPA Program within the Basin will directly result in a reduction of the volume of groundwater that will be pumped from the Basin because the SABGSA assigns specific extraction allocations on an annual basis that can be adjusted depending upon observed groundwater levels and climate trends. These reductions in pumping would occur during periods of normal, above normal, and below normal rainfall year conditions. Pumping reductions associated with this program are intended to directly result in groundwater pumping demand reductions and mitigation of the estimated storage deficit within the Basin.

As monitoring of the groundwater levels in the Basin occurs in the future, the SABGSA will quantify the beneficial impact that the groundwater allocation initiatives are having on the condition of the Basin, which will allow for future refinements in the basin water budget. The information acquired will be critical to the SABGSA in modifying the allocations and pumping ramp-down schedule over time and making informed adaptive management decisions regarding ensuring that chronic lowering of groundwater levels or depletion of supply during periods of drought can be offset by increases in groundwater levels or storage during other periods.

To achieve the required reductions, the non-de minimis pumpers will be incentivized to implement conservation measures resulting in more efficient use of water and greater resiliency to long-term climate variability.

Task 1: Environmental Compliance and Standards

This task will focus on environmental policies, legal review of those policies and translated regulatory specifications, and CEQA compliance. Any permitting or other regulatory compliance requirements will be identified and pursued during the initial phase of the implementation of this management action. The mandatory Groundwater BPA Program will be subject to CEQA. The program will be developed in accordance with all applicable groundwater laws and respect all groundwater rights. Comments have not yet been received by DWR regarding the Basin’s GSP.

Task 2: Development of Program Plan

The initial phase of development will be focused on program and policy design. policy, legal review, and regulatory development, CEQA compliance, and stakeholder outreach. This phase is anticipated to take from 12 to 18 months. Developing the Groundwater BPA Program is consistent with management actions described in the GSP and will require filling data gaps and taking the following steps:

- Establishing program feasibility and methodology for determining baseline pumping by identifying:
    - Historical pumping
    - Sustainable yield of the Basin
    - Groundwater level trends
    - Land uses and corresponding irrigation requirements

- Establishing a methodology to determine individual annual allocations considering documented historical water use, opportunities for improved efficiency, and evaluation of anticipated benefits from other relevant actions individual pumpers may take. Alternatively, the SABGSA may define the allocations based on acreage and crop type.
    - A timeline for implementing limitations on pumping ("ramp down") within the Basin as required to avoid undesirable results and reduce the impact on local growers.
    - Approving a formal regulation to enact the program.
    - Consistent with Water Code § 10730(a), the initial phase of an allocation program will exclude those well owners who extract less than 2 AFY (i.e., de minimis extractors).

Task 3: Stakeholder Outreach

The Groundwater BPA Program will be developed in an open and transparent process. Targeted outreach meetings and technical workshops, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform the non-de minimis groundwater pumpers and other stakeholders about the details of the Groundwater BPA Program. Groundwater pumpers and interested stakeholders will have the opportunity at these meetings to learn about the programs, as well as the opportunity to provide input and comments on how the allocation program is being developed and implemented in the Basin. The targeted public outreach meetings and technical workshops will be supplemented with informational mailers to be sent to all non-de minimis well owners and growers in the Basin and informational press releases will be distributed to local media. If deemed valuable, SABGSA representatives may work directly with individual well owners to explain program requirements and help with program implementation. The Groundwater BPA Program will also be promoted through annual GSP reports and links to relevant information on the SABGSA and member agencies' websites.

2B –Description of planning project/component is well-coordinated

DWR comments on the Basin's GSP have not been received, and the SABGSA is not aware of deficiencies that need to be addressed. To achieve this GSP management action, the SABGSA will develop and implement a regulatory program to equitably allocate a volume of water to be pumped from the Basin annually so that Basin sustainability goals are achieved within 20 years.

The SABGSA anticipates that new policies, ordinances, and regulations will be required to fulfill such a program. Developing and adopting these policies and regulations will require substantial negotiations between the SABGSA member agencies and stakeholders, efforts to define and gain approvals for the scope and detail associated with a regulation will begin with this funding request. These efforts are feasible and will benefit from early negotiations.

2. Regional and Project/Component map(s) in Attachment 4

Figure 1 (page 1): San Antonio Basin Land Use
Figure 2 (page 2): Underserved Community
Figure 9 (page 9): CalEnviroScreen Underrepresented Community – Entire San Antonio Basin

3. Underrepresented Community Statement

Although only a small portion of the Basin is recognized as a state defined SDAC, evidence suggests the population base in the San Antonio Basin is largely comprised of underrepresented, undocumented farmworker families as depicted in Figure 2 on page 2 of Attachment 4. Within the basin lies only one unincorporated town called Los Alamos, population of 1,839, which is 85% of the population of the entire Basin. Children of farmworker families attend the only school within the town, Olga Reed Elementary. 86% of the 187-student enrollment are minorities, whose parents "work on the farms, ranches, and vineyards of nearby farms", as referenced on the Olga Reed Elementary Website (Figure 2 on page 2 of Attachment 4). 83.6% of the student body are enrolled in the free or reduced-price school meal program, whose qualifications are based solely on household poverty level. Caltrans has also formally recognized Los Alamos as a disadvantaged community based on their 2023 Active Transportation Program Guidelines (pages 15-18 of Attachment 4).

CalEnviroScreen's Central Coast Underrepresented Community Map illustrates that the bulk of the San Antonio Basin falls within the high priority score (Figure 9 on page 9 of Attachment 4).

A $200,000 segment of this grant will fund the development of the BPA program in the Basin. This program will benefit the underrepresented community by bringing the basin into sustainability, enabling water supply reliability for all. Other benefits include improvements to water quality and higher groundwater levels/supplies for the community based on the anticipated amount of reduced pumping realized once the program goes into effect.

4. Describe if the proposed Component will positively impact issues associated with small water systems or private shallow domestic wells

A groundwater pumping allocation program will benefit the small water system (LACSD) that serves the City of Los Alamos and benefit domestic and agricultural wells located in the Basin (Figures 10, 11, 12 on pages 10-12 of Attachment 4). In addition,decreased pumping over time will result in increased discharge of groundwater to the Barka Slough that is considered a GDE. There are very few domestic wells in the Basin, but it is expected that reduced extraction in the basin would improve water levels in these wells as well. The volume of groundwater that is pumped from the Basin in recent years is substantially more than the estimated sustainable yield of about 8,900 AFY. Bringing the basin into sustainability by reducing pumping through this groundwater pumping allocation program is the only feasible approach in managing groundwater levels, and creating greater water reliability for agricultural, domestic, and municipal users. There are no feasible options for bringing other sources of water into the basin to offset pumping demands.

5. Describe if the Project or Component will help address the needs of the State Water Board's SAFER Program

A groundwater base pumping program will benefit the small water system (LACSD) that serves the City of Los Alamos and benefit domestic wells located in the basin as a result of more stable groundwater levels that are not in chronic decline.

SAFER is designed to ensure Californians who lack safe, adequate, and affordable drinking water receive it as quickly as possible, and that the water systems serving them establish sustainable solutions. In doing so, SAFER minimizes the disproportionate environmental burdens experienced by some communities and advances justice for people of all incomes, races, and cultures. If the BPA program is implemented, it is anticipated that it would help address these needs.

6. Describe how the proposed Component addresses the Human Right to Water

The SABGSA supports the State's established policy of a Human Right to Water. The State Water Resources Control Board (SWRCB) maintains the Human Right to Water list (HR2W list), which is a list of public water systems that are out of compliance or consistently fail to meet primary drinking water standards and therefore are unable to provide clean and safe water to their customers on a regular basis. LACSD is the only public water provider within the Basin, and it has never been included on the HR2W list. The SWRCB assesses water systems for the HR2W list under four categories: water quality, accessibility, affordability, and technical, managerial, and financial (TMF) capacity. LACSD scores in the "No Risk" zone for water quality, affordability, and TMF capacity, and in the "Low Risk" zone for accessibility. The accessibility risk rating is slightly elevated because LACSD does not have any interties with other water providers that could be activated in an emergency, hypothetically increasing the risk that adequate water would not be accessible to the community. Achieving sustainability within the Basin through implementation of the GSP is anticipated to halt and reverse groundwater elevation declines, providing further assurance of an accessible water supply for every human in the Basin, including the community served by LACSD as well as private domestic well users. The groundwater base pumping fee program(s) component will provide a means to implement the GSP, which will ultimately reduce pumping in the Basin and provide public accountability for the Basin's progress toward attaining sustainability and ensuring safe, clean, affordable, and accessible water for all.

SECTION B.

SCOPE OF WORK AND DELIVERABLES

COMPONENT 1: MONITORING, MAINTENANCE, AND EXPANSION OF THE BASIN MONITORING NETWORKS

COMPONENT 1: MONITORING, MAINTENANCE, AND EXPANSION OF THE BASIN MONITORING NETWORKS

B. Scope of Work and Deliverables

Component 1 will support and enhance the Basin monitoring networks through maintenance projects; installation of additional monitoring wells, transducers, and stream gages; groundwater level monitoring; and collecting additional information about wells included in the monitoring network.

Category (a): Component Administration-Not applicable to this Component.
Category (b): Environmental / Engineering / Design

Task 1: Site Access and Planning
Obtain land access agreements with Vandenberg Space Force Base (VSFB) or Barka Slough and other landowners as needed for the monitoring network. Select sites for new monitoring wells under Task 3 and for stream gages and piezometers under Task 5. Develop all necessary pre-bid and bid documents to secure contractors and award contracts for vegetation trimming along well access trails in Barka Slough and installation of a sounding tube on Well 2M1. Develop all necessary pre-bid and bid documents to secure a contractor and award a contract for installation of four (4) groundwater monitoring wells. Develop all necessary pre-bid and bid documents to secure a contractor and award a contract for the installation of two (2) stream gages and three (3) piezometers in Barka Slough. Develop all necessary pre-bid and bid documents to secure contractors and award contracts for conducting RPE surveys and well videos. Perform site walks with contractors and landowners (or representatives), secure applicable permits, and schedule construction of monitoring wells.

Deliverables:
- Map of approved locations for monitoring wells
- Map of approved locations for Barka Slough stream gages and piezometers
- Bid documents
- Notice of Award
- Landowner access agreements, as applicable
- Copies of required permits, as applicable

Category (c): Implementation / Construction

Task 2: Groundwater Level Monitoring Network Maintenance Projects
Photo-document pre-, during, and post-construction activities. Conduct vegetation trimming along approximately 3,200 feet of Barka Slough well access trails. Install well identification landmarks. Install sounding tube on Well 2M1, anticipated to consist of approximately 250 feet of 1-inch PVC pipe. Confirm installation by measuring depth to groundwater through the new sounding tube.

Deliverables:
- Photo documentation included within the quarterly progress reports
- Depth to water measurement from Well 2M1

Task 3: Expand Monitoring Well Network
Construct four 4-inch PVC monitoring wells to a depth of approximately 400 feet below ground surface. Photo-document pre-, during, and post-construction activities.

Deliverables:
- Photo documentation included within the quarterly progress reports
- Well completion reports
- Well construction schematics
- Lithology logs

Task 4: Install Continuous Data Recording Pressure Transducers
Select monitoring wells and depths to deploy transducers. Solicit supplier quotes and coordinate with landowners to schedule transducer installation. Program and install ten (10) transducers to approximate depths of up to 400 feet below RPE using supplied data cables. Install one (1) barometric transducer in a central location for barometric correction when collecting transducer data. Photo-document pre-, during, and post-construction activities.

Deliverables:
- Supplier invoice(s)
- Photo documentation within the quarterly progress reports

Task 5: Install Barka Slough Stream Gages and Piezometers

Install stream gages, consisting of a 2-inch diameter stainless steel perforated pipe driven 2 feet into the streambed. Install transducers in pipes, coupled with data transmitters, to enable remote stage monitoring. Survey each gage's elevation using a transit or high-resolution GPS unit and create a cross-sectional profile across the stream at each gage location to develop relationship between surface water elevation and flow (rating curve). Install three 2-inch diameter stainless steel perforated pipe piezometers in the Barka Slough sediments. Install transducers coupled with data transmitters to enable shallow water level monitoring to be done remotely. Survey the RPE of each piezometer using a transit or high-resolution GPS unit. Visit stream gages monthly, or as needed during wet weather events (up to 8 total), to service, maintain, verify, and calibrate the on-site recording and transmission equipment for one year. Collect stream flow measurements during installation and at monthly site visits, as applicable. Data from stream gages and piezometers will be uploaded to the SABGSA Data Management System (DMS) on a quarterly basis. Photo-document pre-, during, and post-construction activities. Photo-document gage and channel features for comparison during subsequent monitoring events.

Deliverables:

- Photo documentation included within the quarterly progress reports
- Survey data and cross-sectional profiles at gage locations
- Well completion reports
- Well construction schematics and lithology logs

Category (d): Monitoring / Assessment

Task 6: Quarterly Groundwater Level Monitoring and Reporting

Conduct quarterly groundwater level monitoring and reporting for 38 wells in the Basin monitoring network in accordance with the monitoring program described in the GSP. Upload groundwater level data to the SABGSA DMS on a quarterly basis. Develop a brief technical memorandum (TM) following each monitoring event that presents an overview of that quarter's monitoring activities and a table of the results of the groundwater level monitoring. Quarterly TMs will be made available to the public on the SABGSA website.

Deliverables:

- Quarterly groundwater level monitoring TMs

Task 7: Reference Point Elevation and Well Video Surveys

Conduct RPE surveys of 25 wells in the monitoring network and conduct video surveys of up to 23 wells (including a total of 5 RMS) in the monitoring network, including notification to applicable landowners.

Deliverables:

- RPE survey report
- Well video survey report

Category (e): Engagement / Outreach

Not applicable to this Component.

SCOPE OF WORK

COMPONENT 2: GROUNDWATER DEPENDENT ECOSYSTEM INVESTIGATIONS

B. Scope of Work and Deliverables

Component 2 will fill data gaps regarding GDEs in the Basin, further characterize GDEs in Barka Slough, utilize a new groundwater model from the USGS to update the Basin HCM as needed, and develop a water budget for Barka Slough to improve management of interconnected surface water and groundwater.

Category (a): Component Administration
Not applicable to this Component.

Category (b): Environmental / Engineering / Design

Task 1: Site Access and Planning
Obtain land access agreements with Vandenberg Space Force Base for Barka Slough and other landowners as needed for GDE surveys. Develop all necessary pre-bid and bid documents to secure contractor(s) and award contract(s) for conducting biological surveys of potential GDEs, including Barka Slough and other potential GDEs in the Basin. Conduct site walks with contractor(s) and landowners (or representatives) as needed to determine feasibility of the proposed scope of work, and schedule surveys.

Deliverables:

- Bid documents
- Notice of Award
- Landowner access agreements, if applicable

Category (c): Implementation / Construction
Not applicable to this Component.

Category (d): Monitoring / Assessment

Task 2: Survey and Investigate Potential GDEs and Further Characterize Barka Slough
Conduct field surveys to identify water source type (surface or groundwater), species composition, habitat condition, and other relevant information for GDEs. Characterize the ecological condition of the GDE as having a high, moderate, or low ecological value based on TNC guidance criteria. Advance shallow borings and install piezometer(s) outfitted with continuous recording pressure transducers and telemetry to assess local groundwater conditions. Prepare a report presenting the results of the biological surveys and characterization of GDEs including Barka Slough.

Deliverables:

- Report on GDEs and Barka Slough characterization, including maps of identified GDEs and site photos

Task 3: Review USGS Groundwater Model, Update Hydrologic Conceptual Model, and Develop Water Budget for Barka Slough
Develop all necessary pre-bid and bid documents to secure a contractor and award a contract to review the SACIM, update the Basin HCM as needed based on the SACIM, and develop a water budget for Barka Slough. Conduct a review of the USGS SACIM to evaluate the groundwater model and the future climate scenarios developed by the USGS, SBCWA, and VSFB. Develop a revised HCM for the Basin as needed based on a comparison of the existing Basin HCM and the SACIM and the climate scenarios. Develop a water budget for Barka Slough using the SACIM. Develop technical memorandum (TM) describing the review of the USGS SACIM model, updated HCM, and water budget for Barka Slough

Deliverables:

- TM on the SACIM, updated Basin HCM, and water budget for Barka Slough

Category (e): Engagement / Outreach
Not applicable to this Component.

SCOPE OF WORK

COMPONENT 3 - WATER USE EFFICIENCY PROGRAMS

COMPONENT 3 - WATER USE EFFICIENCY PROGRAMS

B. Scope of Work and Deliverables

Implement Initiatives that promote increasing water use efficiency by achieving reductions in the amount of water used for municipal, commercial, industrial, landscape irrigation, and aesthetic purposes. Implementing water efficiency programs are intended to promote decreasing water use and increased irrigation efficiency and achieving reductions in the amount of water used for agricultural irrigation.

Develop a pumping schedule program with pumpers creating a localized drawdown impact on the Basin. Fill data gaps by identifying all wells in this region and work with landowners to create a pumping schedule that alleviates drawdown impacts. Conduct outreach with all stakeholders to implement programs.

Category (a): Grant Administration – N/A for this component
Category (b): Environmental/Engineering/Design – N/A for this component
Category (c): Implementation/Construction- N/A planning project

Category (d): Monitoring/Assessment
Task 1. Water Use Efficiency Program Design:

Conduct planning and activities associated with the creation and implementation of a Water Use Efficiency Program for urban and agricultural groundwater users. Develop and implement initiatives that promote increased irrigation efficiency and decreased water use for agricultural pumpers.

Deliverables:

- Water use efficiency program design standards, BMP's, and Water Use Efficiency Plan
  - Urban uses
  - Agricultural uses
- SABGSA will review and update plan specifications
- Develop initiatives to promote irrigation efficiency with agricultural pumpers

Task 2: LACSD Wellfield Pumping Coordination/Offsite Well Impact Mitigation (WPC/OWIM) Project Scope:
Provide planning and designs for the wellfield pumping and coordination program. Develop guidelines for the groundwater pumping schedules in the vicinity of LACSD well with input from local stakeholders. Conduct research and meet with landowners to identify all wells contributing to the localized drawdown area. Compile information regarding existing well details, pump system details, and pumping rates and schedules. Develop agreements between local well owners and the LACSD.

Deliverables:

- Tabularize well construction and pump system details and pumping data (provide record)
- Pumping schedule
- Written agreements with local landowners

Category (e): Interested Parties Outreach/Public Education
Task 3. Stakeholder Education and Outreach:

SABGSA will carry out incentive programs, public education, technical support methods, and other efficiency enhancing programs for urban groundwater users. Work with LACSD, County of Santa Barbara, Cachuma RCD, NRCS and other partners to promote programs and bolster incentives. Conduct public education and stakeholder outreach including information flyers and public workshops. LACSD will outreach to affected pumpers to initiate and maintain a pumping schedule.

Deliverables:

- Public education and technical support for incentive program(s)
- Work with stakeholders and other agency partners/collaborators to officiate and promote program(s)
- LACSD will outreach to affected pumpers/stakeholders to coordinate a pumping schedule
- Advertise and promote to interested parties
  - Completed stakeholder outreach meetings
  - Completed designs of all promotional materials and materials that inform public
  - Copies of information mailers and news releases about program

SCOPE OF WORK
COMPONENT 4: GROUNDWATER PUMPING FEE PROGRAM

B. Scope of Work and Deliverables

COMPONENT 4: GROUNDWATER PUMPING FEE PROGRAM

Component 4 will create a fee-based groundwater pumping plan for the SABGSA. It will create a funding source needed to fulfill projects and management actions in the Basin as described in the GSP. All pumpers in the Basin will be part of this program as it is tied to groundwater withdrawals from the Basin. Data gaps will be filled in the well registration and metering program implementation process. Stakeholder outreach will be widely used throughout this program.

Implementation of a Well Registration and Metering Program will address data gaps associated with the existing monitoring network, require that flow meters be installed on all non-de minimis agricultural wells, support the Groundwater Pumping Fee Program development, and provide ongoing data to manage the Basin. Stakeholder outreach will be implemented for all program(s).

Category (a): Grant Administration: *Not applicable to this component*

Category (b): Environmental/Engineering/Design

Task 1: Pumping Fee Regulatory Policy Development

Review design through environmental policy lens, regulatory development, CEQA compliance, and legal review. Confer with legal specialists to ensure regulatory/statutory compliance. Ensure all work is compliant with CEQA. Legal counsel will carefully review and further advise on regulatory/statutory policies.

Deliverables:

- Regulatory policy(s) studies and specifications
- Copies of required permits, if applicable
- CEQA compliance specifications per design
- Regulatory and statutory policy(s), specifications, and other related legal documents

Category (b): Environmental/Engineering Design

Task 2: Well Registration and Metering Policy Development

Confer with legal specialists to ensure the program meets regulatory/statutory compliance. Ensure all work is compliant with CEQA. Legal counsel will carefully review and further advise on regulatory/statutory policies.

Deliverables:

- Regulatory policy(s) and specification copies
- CEQA compliance specifications per design
- Regulatory and statutory policy(s) and specifications

Category (c): Implementation/Construction

Task 3: Flow Meter Installation Program

Non-de minimis pumpers in the Basin will install flow meters or be assigned an alternative extraction measurement.

Deliverables:

- Flow meters – completed installations (location map)
- Photo documentation

Category (d): Monitoring/Assessment

Task 4: Plan Development for the Groundwater Pumping Fee Program

Conduct planning and design activities associated with the creation of a Groundwater Pumping Fee Program. Guidelines and regulatory framework will be developed to include water conservation initiatives.

Deliverables:

- Pumping fee program, design, and specifications

- Well monitoring reports
- Water use efficiency initiative(s) specifications
- Regularly updated data analysis reports – to update the Hydrogeologic Conceptual Model (HCM)
- Landowner agreements, if applicable

Category (d): Monitoring/Assessment

Task 5: Plan Development for the Well Registration and Metering Program

Conduct planning and design activities associated with the creation of a well registration and metering program. Register all wells in the Basin and chart accurate location(s). Require flow meters be installed on all non-de minimis wells in the Basin. Create and assign extraction methodologies for pumpers operating without a flow meter. Assist pumpers in locating funding resources that offset flow meter installation costs. Collect pumping data for monitoring water use trends and charting data for analysis. Continually update the data analysis reports to update the HCM.

Deliverables:

- Well registration program design specifications
- Data study demonstrating specifications regarding registered wells and flow meters
- Data specifications (map) charting the metered and registered wells
- Develop well monitoring reports
- Regularly updated data analysis reports – to update the Hydrogeologic Conceptual Model (HCM)

Category (e): Interested parties Outreach/Public Education

Task 6: Engagement and Outreach for Implementation

Engage all pumpers about the program(s), especially non-de minimis pumpers, using outreach methods that target the agricultural pumpers. Public outreach meetings, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform all groundwater pumpers and other basin-wide community stakeholders of the current and projected basin conditions and the need for addressing data gaps to meet these GSP goals.

Deliverables:

- Stakeholder outreach meeting(s) sign in sheets and public education announcements
- Program implementation promotional materials
- Information mailers/new releases
- Inform stakeholders of processes
- Inform pumpers of regulations
- Completed stakeholder outreach meetings (sign in sheets and announcements)
- Completed designs of promotional materials that inform the public about Program(s)
- Copies of information mailers/news releases

SCOPE OF WORK
COMPONENT 5: MANAGED AQUIFER RECHARGE PROJECT FEASIBILITY STUDY

B. Scope of Work and Deliverables

COMPONENT 5: Managed Aquifer Recharge Project Feasibility Study
Component 5 will provide information about the feasibility of implementing managed aquifer recharge projects to support improvements in groundwater levels and groundwater in storage in the Basin. Under this component, seven project alternatives will be analyzed, and feedback will be solicited from Basin stakeholders and the SABGSA to determine preferred alternatives. A report will be developed documenting the findings, potential benefits, and implementation costs to assist the SABGSA in evaluating alternatives and moving forward with future recharge projects.

Category (a): Component Administration
Not applicable to this component

Category (b): Environmental / Engineering / Design
Not applicable to this component

Category (c): Implementation / Construction
Not applicable to this component

Category (d): Monitoring / Assessment

Task 1: Managed Aquifer Recharge Project Feasibility Study
Develop all necessary pre-bid and bid documents to secure a contractor and award a contract for conducting the feasibility study. Develop detailed recharge project descriptions for each alternative, including timing and quantity of water available for recharge, location(s), and factors affecting feasibility. Solicit feedback from the SABGSA and Basin stakeholders on alternatives and preferences. Evaluate alternatives and their associated costs and benefits. Develop estimated costs and timelines for implementing preferred alternatives. Prepare a draft and final feasibility study report.

Deliverables:
- Bid documents
- Notice of Award
- Draft and final feasibility study reports

Category (e): Engagement / Outreach

Task 2: Stakeholder Engagement and Outreach
Conduct stakeholder engagement at public meetings of the SABGSA Board and other public meetings as necessary to solicit feedback about proposed alternatives for the managed aquifer recharge feasibility study and to assist in selecting preferred alternatives. Provide information about opportunities to comment and updates regarding progress on the feasibility study through newsletter articles and website content.

Deliverables:
- Copies of newsletter articles and website content
- Meeting agendas, presentation materials, and minutes

SCOPE OF WORK
COMPONENT 6: ANNUAL GSP REPORTING

COMPONENT 6: ANNUAL GSP REPORTING

B. Scope of Work and Deliverables

Component 6 consists of activities to support annual GSP reporting, including preparation of annual reports, management of the Data Management System (DMS), enhancements to the DMS, and annual updates of water usage factors and crop acreages in the Basin.

Category (a): Grant Agreement Administration

Not applicable to this Component.

Category (b): Environmental / Engineering / Design

Not applicable to this Project Component.

Category (c): Implementation / Construction

Not applicable to this Project Component.

Category (d): Monitoring / Assessment

Task 1: Prepare Annual Reports

Prepare three (3) annual reports, as required by DWR, during the life of the grant, consisting of the following sections: Executive Summary, Introduction, Updated Groundwater Conditions, Water Supply and Use, and Plan Implementation Status.

Deliverables:

- Annual Reports

Task 2: DMS Management

Update and quality check data in the DMS. Maintain accurate, up-to-date records for use in annual reports and communications with stakeholders.

Deliverables:

- Groundwater levels uploaded from updated DMS to SGMA Portal twice per year

Task 3: DMS Enhancements

Complete enhancements to the DMS. Upgrade the DMS to enable tracking of well registration and metering, and to prepare the database for implementation of a groundwater pumping fee program.

Deliverables:

- Well registration and metering section of DMS

Task 4: Update Water Usage Factors and Crop Acreages

Use Land IQ and OpenET data to improve the accuracy of agricultural water use estimates in the Basin for annual reporting. Specifically, Land IQ data will be used to refine land use and crop classification data, and OpenET will be used to calculate agricultural water use based on evapotranspiration needs of irrigated crop acreage in the Basin.

Deliverables:

- Groundwater use by sector described in Annual Reports

Category (e): Engagement / Outreach

Not applicable to this Project Component.

SCOPE OF WORK
COMPONENT 7: GRANT ADMINISTRATION

COMPONENT 7: GRANT ADMINISTRATION

B. SCOPE OF WORK

Category (a): Grant Agreement Administration

Prepare reports detailing work completed during reporting period as outlined in Exhibit F, "Report Formats and Requirements" of this Agreement. Progress Reports will include sufficient information for the DWR Grant Manager to understand and review backup documentation submitted with invoices. Quarterly invoices will accompany the Quarterly Progress Reports and should be submitted to the DWR Grant Manager for review to receive reimbursement of Eligible Project Costs. Collect and organize backup documentation by component, budget category, and task and prepare a summary Excel document detailing contents of the backup documentation organized by component, budget category, and task.

Prepare and submit the Environmental Information Form (EIF) within 30 days of the execution date of the Grant Agreement. No invoices will be reviewed or processed until the EIF has been received by the DWR Grant Manager. Submit a deliverable due date schedule within 30 days of the execution date of the Grant Agreement to be reviewed and approved by the DWR Grant Manager. Any edits to the schedule must be approved by the DWR Grant Manager and the revised schedule saved in the appropriate project files.

Prepare the Draft Component Completion Report and submit to the DWR Grant Manager for comment and review 90 days before the end date for each component as outlined in Exhibit C. DWR's Grant Manager will review the Draft Component Completion Report and provide comments and edits within 30 days of receipt, when possible. Prepare a Final Component Completion Report addressing the DWR Grant Manager's comments within 30 days before each Component end date outlined in Exhibit C. The report shall be prepared and presented in accordance with the provisions of Exhibit F, "Report Formats and Requirements" and approved by the DWR Grant Manager within 30 days after the end date. All deliverables listed within the Work Plan shall be submitted with each Final Component Completion Report unless a new deliverable due date was approved by the DWR Grant Manager.

Prepare the Draft Grant Completion Report and submit to the DWR Grant Manager for comment and review 90 days before the work completion date listed in Paragraph 2. DWR's Grant Manager will review the Draft Grant Completion Report and provide comments and edits within 30 days of receipt, when possible. Prepare a Final Completion Report addressing the DWR Grant Manager's comments prior to the work completion date. The report shall be prepared and presented in accordance with the provisions of Exhibit F, "Report Formats and Requirements" and approved by the DWR Grant Manager within 30 days after the work completion report. However, all charges accrued after the work completion date in Paragraph 2 will not be reimbursed. The retention invoice must be received, processed, and through DWRs accounting office by the final payment date outlined in Paragraph 2. All deliverables listed within the Work Plan shall be submitted with the Final Completion Report unless a new deliverable due date was approved by the DWR Grant Manager.

Deliverables:

- EIF
- Deliverable due date schedule
- Quarterly Progress Reports, Quarterly Invoices, and all required backup documentation
- Draft and Final Component Completion Reports
- Draft and Final Grant Completion Reports

(b) Environmental / Engineering / Design – N/A to this component
(c) Implementation / Construction– N/A to this component
(d) Monitoring / Assessment– N/A to this component
(e) Engagement / Outreach– N/A to this component

SCOPE OF WORK
COMPONENT 8: GROUNDWATER BASE PUMPING ALLOCATION PROGRAM

B. Scope of Work and Deliverables

Component 8: GROUNDWATER BASE PUMPING ALLOCATION PROGRAM

Component 8 will fill data gaps and create a base pumping allocation program to reduce the effects of drawdown areas of the Basin affecting agricultural, municipal, and domestic pumpers.

Category (a): Grant Administration - *Not applicable to this component*

Category (b) Environmental/Engineering/Design

Task 1: Environmental Compliance and Specifications

Policy and regulatory development, CEQA compliance, and legal review. Guidelines and regulatory framework will be developed to include water conservation initiatives. Legal counsel will be sought to carefully review regulatory and statutory processes.

Deliverables:

- Regulatory policy(s) specifications
- CEQA review and compliance specifications
- Regulatory and statutory policy specifications from legal review

Category (c): Implementation/Construction- *Not applicable to this planning component*

Category (d) Monitoring/Assessment

Task 2: Program Planning and Design

Conduct planning and design activities associated with the creation of a Groundwater Base Pumping Allocation Program.

Deliverables:

- Groundwater Base Pumping Allocation Program Methodology/Design Specifications
  - Baseline pumping allocation method
  - Baseline individual annual pumping allocation method
- BPA Program evaluation method
- SAB Board review and program approval
- Pumping limitation “ramp down” timeline
- Report documenting Program details and elements

Category (e): Interested parties Outreach/Public Education

Task 3: Stakeholder Outreach

Public outreach meetings will be conducted to inform groundwater pumpers. Targeted outreach meetings and technical workshops, in addition to regularly scheduled SABGSA meetings, will be held periodically to inform the non-de minimis groundwater pumpers and other stakeholders about the details of the Groundwater BPA Program. Groundwater pumpers and interested stakeholders will have the opportunity at these meetings to learn about the programs, as well as the opportunity to provide input and comments on how the allocation program is being developed and implemented in the Basin. The targeted public outreach meetings and technical workshops will be supplemented with informational mailers to be sent to all non-de minimis well owners and growers in the Basin and informational press releases will be distributed to local media.

Deliverables:

- Completed technical workshops (attendance sheets)
- Completed community outreach meetings, including public SABGSA meetings (attendance sheets)
- Completed designs of all promotional and educational materials and inform the public about Program

BUDGET TABLE TEMPLATE

Table 1a: Budget Summary

Grant Title: Implementation of SABGSA Projects and Management Actions

Grantee: San Antonio Basin Groundwater Sustainability Agency

Components	Grant Amount
Component 1: Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks	$795,000
Component 2: Groundwater Dependent Ecosystem Investigations	$200,000
Component 3: Water Use Efficiency Programs	$155,000
Component 4: Groundwater Pumping Fee Program	$390,000
Component 5: Managed Aquifer Recharge Project Feasibility Study	$100,000
Component 6: Annual Reporting and DMS Management	$280,000
Component 7: Grant Administration	$230,000
Component 8: Groundwater Base Pumping Allocation Program	$150,000
Total:	**$2,300,000**

Table 1b: Component Budget Summaries

Component 1: Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks

Component 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) Grant Agreement Administration	$0
(b) Environmental / Engineering / Design	$150,250
(c) Implementation / Construction	$438,500
(d) Monitoring / Assessment	$206,250
(e) Engagement / Outreach	$0
Total:	**$795,000**

Component 2: Groundwater Dependent Ecosystem Investigations

Component 2 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	$18,750
(c) Implementation / Construction	$0
(d) Monitoring / Assessment	$181,250
(e) Engagement / Outreach	$0
Total:	**$200,000**

Component 3: Water Use Efficiency Programs and LACSD Wellfield Pumping Coordination

Component 2 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	$136,500
(e) Engagement / Outreach	$18,500
Total:	**$155,000**

Component 4: Groundwater Pumping Fee Program

Component 2 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	$78,000
(c) Implementation / Construction	$117,000
(d) Monitoring / Assessment	$156,000
(e) Engagement / Outreach	$39,000
Total:	**$390,000**

Component 5: Managed Aquifer Recharge Project Feasibility Study

Component 2 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	$95,000
(e) Engagement / Outreach	$5,000
Total:	**$100,000**

Component 6: Annual Reporting and DMS Management

Component 2 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	$280,000
(e) Engagement / Outreach	$0
Total:	**$240,000**

Component 7: Grant Administration

Component 2 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	$230,000
(b) Environmental / Engineering / Design	$0
(c) Implementation / Construction	$0
(d) Monitoring / Assessment	$0
(e) Engagement / Outreach	$0
Total:	**$230,000**

Component 8: Groundwater Base Pumping Allocation Program

Component 2 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	$15,000
(c) Implementation / Construction	$0
(d) Monitoring / Assessment	$125,000
(e) Engagement / Outreach	$10,000
Total:	**$150,000**

Table 2 – Ranking of Proposed Components

Rank	Name	SJV Funds Component Requirement	Readiness	Partnerships with Non-Profits, Non-Governmental Organizations (NROs), and/or Colleges/Universities	Benefactors	Cost
Rank in order of importance with 1 being most important. Do not use rank # more than once each.	*Provide a name for each proposed component.*	*Please check box if the component is eligible for SJV-funds*	*Please check if the component will be under construction by the end of 2023*	*Please list all partnering agencies that are collaborating on a component with the estimate amount of funding being provided to the nonprofit(s), NGO(s), and/or college(s)/ university (-ies)*	*Does this component benefit any of the following communities? (Check all that apply)*	*Provide a cost estimate for the total component cost. Round to nearest hundred.*
2	Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks	☐	☒		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 795,000
3	Survey and Investigate Potential GDE's in the Basin	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 200,000
4	Water Use Efficiency Program and LACSD Wellfield Pumping Coordination	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 155,000
1	Groundwater Pumping Fee Program	☐	☒		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 390,000
5	Managed Aquifer Recharge Feasibility Study	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 100,000
6	Annual GSP Reporting	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 280,000
7	Grant Administration	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 230,000
8	Groundwater Base Pumping Allocation Program	☐	☐		☐ Tribe(s) ☒ URC(s) ☐ SDAC(s)	$ 150,000
					Total Cost:	**$2,300,000**

SCHEDULE TABLE TEMPLATE

Grant Title: Implementation of San Antonio Basin Projects and Management Actions

Categories	Start Date	End Date
Component 1: Monitoring, Maintenance, and Expansion of the Basin Monitoring Networks	**October 4, 2022**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	10/04/2022	06/30/2026
(c) Implementation / Construction	10/04/2022	06/30/2026
(d) Monitoring / Assessment	10/04/2022	06/30/2026
(e) Engagement / Outreach	N/A	N/A
Component 2: Survey and Investigate Potential GDE's in the Basin	**November 1, 2023**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	11/01/2023	06/30/2026
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	11/01/2023	06/30/2026
(e) Engagement / Outreach	N/A	N/A
Component 3: Water Use Efficiency Programs and Groundwater Pumping Allocation Program	**November 1, 2023**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	N/A	N/A
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	11/01/2023	06/30/2026
(e) Engagement / Outreach	11/01/2023	06/30/2026
Component 4: Groundwater Pumping Fee Program	**October 4, 2022**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	10/04/2022	06/30/2026
(c) Implementation / Construction	11/01/2023	06/30/2026
(d) Monitoring / Assessment	10/04/2022	06/30/2026
(e) Engagement / Outreach	10/04/2022	06/30/2026
Component 5: Managed Aquifer Recharge Feasibility Study	**November 1, 2023**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	N/A	N/A
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	11/01/2023	06/30/2026
(e) Engagement / Outreach	11/01/2023	06/30/2026
Component 6: Annual GSP Reporting	**October 4, 2022**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	N/A	N/A
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	10/04/2022	06/30/2026
(e) Engagement / Outreach	N/A	N/A
Component 7: Grant Administration	**November 1, 2023**	**June 30, 2026**
(a) Component Administration	11/01/2023	06/30/2026
(b) Environmental / Engineering / Design	N/A	N/A
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	N/A	N/A

Categories	Start Date	End Date
(e) Engagement / Outreach	N/A	N/A
Component 8: Groundwater Base Pumping Allocation Program	**November 1, 2023**	**June 30, 2026**
(a) Component Administration	N/A	N/A
(b) Environmental / Engineering / Design	11/01/2023	06/30/2026
(c) Implementation / Construction	N/A	N/A
(d) Monitoring / Assessment	11/01/2023	06/30/2026
(e) Engagement / Outreach	11/01/2023	06/30/2026