ATTACHMENT 4

Work Plan

Work Plan. This attachment includes a description of proposed work plan and tasks for Groundwater Sustainability Plan (GSP) development for the Bolsa, Hollister, and San Juan Bautista basins. The Work Plan is designed for SGMA compliance and for GSP development as a final deliverable to Department of Water Resources.

Work Plan

Introduction

The San Benito County Water District Groundwater Sustainability Agency (SBCWD) is proceeding with groundwater sustainability planning for the Hollister, Bolsa, and San Juan Bautista basins. SBCWD, the sole GSA for the Bolsa basin, is cooperating with the Santa Clara Valley Water District GSA (SCVWD) for GSP preparation for the Hollister and San Juan Bautista basins. This is in accordance with the Memorandum of Understanding dated July 5, 2017 and in compliance with the Sustainable Groundwater Management Act (SGMA).

To support SGMA compliance, the Department of Water Resources (DWR) is administering funds authorized by Proposition 1 for the Sustainable Groundwater Planning (SGWP) Grant Program. The Draft Application and eligibility requirements for the program have been published in the Proposal Solicitation Package for Groundwater Sustainability Plans and Projects.

In accordance with the SGWP requirements, SBCWD is applying for a SGWP grant to provide partial funding for GSP development. This SGWP grant application is to request Category 2 funding and to support GSP preparation for the Bolsa, Hollister, and San Juan Bautista Groundwater Subbasins. As described in the Proposal Summary, SBCWD is seeking consolidation of the three subbasins and preparation of a single GSP. However, it is understood that three basins currently are defined and consolidation may not occur. Given that situation, SBCWD seeks funding for multiple basins, consistent with the PSP, and SBCWD will develop the multiple GSPs as required. This Work Plan is appropriate for all or each of the basins.

In summary, the proposed Work Plan begins with Task 0, which represents previously completed and ongoing efforts that have been designed and funded to support a transition from historical SBCWD groundwater management to Sustainable Groundwater Management consistent with SGMA. The remaining Tasks 1 through 13 (described in detail below) are designed to complete the GSP process consistent with SGMA. These tasks also may be grouped by the budget categories as requested by the PSP:

(a) Direct Project Administration: Task 13 Project Management and Communications
(b) Plan Development: Tasks 2 through 12
(c) Stakeholder Engagement: Task 1 Outreach and Stakeholder Engagement

Task 0 Preparation for SGMA Compliance

This task involves transition from historical SBCWD groundwater management to Sustainable Groundwater Management consistent with SGMA.

Historical SBCWD groundwater management has been based on AB3030 Groundwater Management Plans (1998 and 2003) and Annual Reports that are prepared in accordance

with San Benito County Water District Act, codified in 1953 in Water Code Appendix 70. In addition to specific projects, these Annual Reports—authorized by and presented to the SBCWD Board of Directors in a public meeting—have been the major means of groundwater monitoring, management, and reporting in San Benito County. These reports document climatic and groundwater conditions, water supply and demand, and management activities, and provide recommendations that are fundamental to SBCWD management. The Annual Reports have included summaries of annual water budgets and groundwater quality conditions on a triennial basis. The 2014 Annual Report and presentation included a section (and appendix) on SGMA that presented a road map for future planning. This introduced the Board of Directors, local water agencies, stakeholders, and interested public to the three basins (as defined by DWR and as affected by SGMA), to the concepts of a GSA and GSP, and to benefits of SGMA.

As of January 1, 2015, initial tasks to prepare for Sustainable Groundwater Management were initiated. These tasks, summarized below, include efforts that have been completed or are ongoing and efforts that have been planned and funded out to 2020, thereby providing a five-year transition from historical AB3030 management to SGMA management.

0.1 Groundwater Monitoring, Planning, Reporting 2015 (100% complete)

This task involved preparation of the 2015 Annual Report (December 2015), framed in terms of Pursuing Sustainability. This report includes an update on the development of SGMA in 2015 and development of a timeline that combines SGMA Milestones, SBCWD Annual Reporting, and SBCWD actions for SGMA. This report includes summary of Basin Boundary Emergency Regulations and detailed evaluation of local groundwater basin boundaries relative to jurisdictional boundaries and hydrologic connectivity. The process of establishing a GSA is outlined and recommendations are presented for GSP establishment and collaboration with neighboring GSAs including Santa Clara Valley Water District and Pajaro Valley Water Management Agency. This report also includes documentation of groundwater conditions in the basins (as locally defined), evaluation of water supply and demand, presentation of maps and graphs, and summation regarding sustainability. The report states that persistence of drought and reduced CVP supply are a real risk of overdraft.

0.2 Northern San Benito County Groundwater Model Update, Enhancement, and Application (100% complete)

This task involved systematic update and enhancement of the groundwater model and the pre- and post-processing programs used to prepare model input and evaluate model results. The update and enhancement (March-June 2015) included extension of the base period to 2014; provision of improved pre-processing tools for estimating rainfall recharge, irrigation pumping and return flow, and stream flow; and addition of the capability to easily simulate land use change. Subsequent application of the model included

simulation of the effects of Pacheco Reservoir reoperation on groundwater levels and supply near Pacheco Creek (a tributary of the Pajaro River that provides fish habitat).

0.3 Zone 3 Operations Planning Tool (100% complete)

This task is development of a worksheet planning tool to create annual plans for operation of SBCWD's Hernandez and Paicines Reservoirs and for re-diversion of Hernandez Reservoir releases to Paicines Reservoir at the San Benito River Diversion. This tool standardizes and facilitates the annual effort to plan Hernandez operations under differing hydrologic and water supply conditions consistent with an adopted water supply management strategy. The tool provides for coordinated management of surface water storage and groundwater storage.

0.4 Planning toward a GSP (100% complete)

This task focused on planning toward GSP preparation for the Bolsa, Hollister, and San Juan Bautista basins including detailed examination of GSP Regulations and exploration of funding sources. It provided a working session (August 30, 2016, with illustrated presentation) for SBCWD staff to become familiar with the GSP development process and GSP required contents. It also included a publicly-noticed presentation (September 13, 2016) to and discussion with the SBCWD Board of Directors Administration Committee, SBCWD Counsel, and selected staff to review next steps.

0.5 Groundwater Monitoring, Planning, Reporting 2016 (100% complete)

This task was preparation of the 2016 Annual Report (December 2016), framed in terms of *Planning a Sustainable Future.* The report includes documentation of groundwater conditions and supply and demand for the Bolsa, Hollister, and San Juan Bautista basins (as locally defined), and an update on SGMA (with recommendations for timely establishment of a GSA). This report includes a major section on groundwater quality, including update of the database, reporting on conditions, and review relative to the recent Salt and Nutrient Management Plan (SNMP). The status of monitoring is considered relative to upcoming SGMA.

0.6 GSA Formation (100% complete)

This task provided the framework for establishment of the San Benito County Water District (SBCWD) as a Groundwater Sustainability Agency (GSA) for the medium-priority groundwater subbasins in the northern county: Bolsa, Hollister, and San Juan Bautista. It involved preparation of application materials, including a service area description and map, and draft list of interested parties. It also included development of a resolution for Board of Directors' consideration of becoming a GSA, public noticing, a powerpoint presentation, and submittal of the GSA packet to DWR. This task also included collaboration with Santa Clara

Valley Water District for development of a Memorandum of Understanding for GSP preparation for the shared San Juan Bautista and Hollister basins. This task provided a presentation (May 9, 2017) to the San Benito County Board of Supervisors regarding the SBCWD GSA.

0.7 Application for Grant Funding (100% complete)

This task provides for development and submittal of an application to secure a grant from DWR's Sustainable Groundwater Planning (SGWP) Grant Program. As such, this task is intended to secure financial support for GSP preparation of the Bolsa, Hollister, and San Juan Bautista basins as defined by DWR. It has included preparation of general information for the application, documentation of SBCWD commitment and eligibility to contract for and receive funding, preparation of project justification sections, and development of a work plan, budget, and schedule. It also has included the resolution by the SBCWD GSA Board of its intent to make an application, and the submittal of the application.

0.8 Request for Basin Consolidation (20% complete)

The SBCWD GSA has indicated its interest in consolidation of the three basins of the Gilroy-Hollister Groundwater Basin: Bolsa, San Juan Bautista, and Hollister. This consolidation into one subbasin would provide continuity from comprehensive, historical groundwater management and would support the transition to cost-effective sustainable management. This task includes a formal decision by the Board of Directors to request boundary modification and a formal resolution. It also includes development and submittal of the needed documents, maps, and explanations needed for a Basin Boundary Modification.

0.9 Groundwater Monitoring, Planning, Reporting 2017 (0% complete)

This task is the preparation of the 2017 Annual Report. It includes update of hydrologic and water use data, processing and analysis of data to document groundwater level and storage changes, SBCWD management activities, and SBCWD operating costs and water charges. It also provides recommendations for continuing SBCWD management. A major effort will involve update of the water budget analysis; this will be conducted (for the last time) using the basin boundaries defined locally in 1996. The GSP water budget analyses will be based on DWR boundaries. The groundwater model will be updated and used to quantify the water budget for past years and to compare these to the storage change computations that have been prepared annually. This will allow historical patterns and trends to be documented and evaluated in terms of implications for future SGMA analyses. The water budget will be summarized, with pertinent data and tables included in appendices. SGMA updates will be addressed in the Management Activities section. The January 8, 2018 presentation to the SBCWD Board of Directors (scheduled according to the San Benito County Water District Act in Water Code Appendix 70) will provide announcement of the initiation of the GSP process.

0.10 Groundwater Monitoring, Planning, Reporting 2018 (0% complete)

This task is the preparation of the 2018 Annual Report. Consistent with previous Annual Reports, this will include compilation and update of hydrologic and water use data, processing and analysis of data to document groundwater level and storage changes, SBCWD management activities, and SBCWD operating costs and water charges. Management recommendations will be provided, supporting continuous management. A special section will provide details on the recommended strategy for completing a GSP before the 2022 deadline, including explanation of how historical analyses will be transitioned and incorporated. The January 14, 2019 presentation to the SBCWD Board of Directors occurs between proposed GSP workshops and thus can provide useful updates to SGMA-related activities.

0.11 Groundwater Monitoring, Planning, Reporting 2019 (0% complete)

This task is the preparation of the 2019 Annual Report. It includes organization and update of hydrologic and water use data, processing and analysis of data to document groundwater level and storage changes, SBCWD management activities, and SBCWD operating costs and water charges. Keeping with the triennial approach to water quality, a special section will include an update of the water quality database, including data collection, data entry, QA/QC and reporting. Quality will be discussed in terms of SNMP monitoring and goals will be assessed. The January 13, 2020 presentation to the SBCWD Board of Directors can provide a useful update to SGMA activities.

Task 0 Deliverables (Available for submittal)

- 2015 Annual Report and Presentation
- Powerpoint presentations and public notice
- 2016 Annual Report and Presentation
- Instructions for Zone 3 Operations Tool
- Northern San Benito County Groundwater Model Update and Enhancement
- Presentation each to SBCWD Board and San Benito County Supervisors

Task 1 Outreach and Stakeholder Engagement

This task supports the agency and public engagement needed throughout the GSP process for the credibility, effectiveness, and acceptance of the GSP. A Communication Plan will be included in the GSP that describes how the GSAs (SBCWD and SCVWD) make decisions as part of the GSP, engage and inform the diverse public, and recognize beneficial uses and users in relation to the GSP. This Communication Plan will incorporate the basic approach of DWR's Guidance Document on Stakeholder Communication and Engagement.

If basin consolidation does not occur and more than one GSP is prepared, it is anticipated that the Communication Plan elements (e.g., website, lists, meetings) will be adapted for mutual use of all GSPs; this is possible given that the basins are contiguous, connected, and

comprehensively managed now. Local interests can be accommodated on a basin and/or management area basis.

1.1 Initiate Communication Plan

A Communication Plan will be initiated by defining the objectives of the outreach program, identifying general groups of stakeholders, considering key messages that the need to be conveyed, identifying venues for communication, outlining a timeline, and providing for self-evaluation. This task anticipates two outcomes: creation of a SGMA website and establishment of a SGMA Advisory Forum (SAF).

The website would serve as a public forum. Easily accessible and readily updated, it would provide online resources, including access to key documents (e.g., review the draft deliverables) and presentations, announcements of public meetings and workshops, an event calendar, and links to key SGMA websites.

The SGMA Advisory Forum would serve as a core group who would commit to workshop participation, draft deliverable review, active cooperation (for example, data sharing and access to monitoring sites) and provision of input on key GSP decisions, for example, definition of sustainability criteria and evaluation of possible management actions and projects. Participants could include representatives of local water agencies, planning agencies, non-governmental organizations (NGOs), and community groups; meetings will be held on a regular basis (e.g., quarterly), will be announced on the website, and will be open to the public.

The Communication Plan also will consider the possibility of focused engagement with specific stakeholders that may have interests in groundwater management, but are not currently active in SGMA activities or are more difficult to engage. These may include disadvantaged communities, Spanish speakers, or growers who have not been engaged in groundwater management.

1.2 Identify and Notify Stakeholders

This is a key task for the Communication Plan; SBCWD has a long history of collaboration with other public agencies, NGOs, growers, and community groups and has developed stakeholder lists. These will be reviewed, updated, and then supplemented by participants in workshops and meetings and online through the website. The list will be maintained through the GSP process. This task also includes the general notification of stakeholders of GSP activities, including preparation of notices and announcements, and update of the website.

1.3 SAF Meetings

Members of the SAF would be tasked with active participation in the GSP process. SAF meetings would be held regularly, open to the public. Specific tasks involved in support of the SAF and SAF meetings include the following:

- Coordination. Develop and maintain contact list for SAF, and provide notification of SAF meetings.
- Preparation. Develop agenda, presentations and meeting materials (as needed).
- Outreach. Coordinate to prepare meeting notices, website announcement, press releases, etc.
- Facilitation and Presentation. Chair the meeting and provide presentation of technical content.
- Follow-Up. Prepare draft and final summaries of workshops. Follow-up on action items.

1.4 Public Workshops

This task involves a series of public workshops to engage members of the public and additional agencies or interest groups in the planning process. The budget assumes six workshops, with the following topics:

1. Kickoff workshop
2. Groundwater conditions
3. Criteria for sustainability
4. Management options for sustainability
5. Preliminary evaluation of management actions
6. Presentation of draft GSP

This task includes the following:

- Preparation. Develop an agenda, workshop plan (staffing, venue, etc.), presentation, and workshop materials including breakout discussion questions (as needed).
- Outreach. Coordinate to prepare meeting notices, website announcement, press releases, etc. Arrange for distribution of materials to encourage stakeholder attendance and engagement.
- Facilitation and Presentation. Provide presentation of technical content and in-person facilitation to maintain focus and balanced participation by stakeholders.
- Follow-Up. Prepare draft and final summaries of workshops. Follow-up with attendance list and action items.

Task 1 Deliverables

- Communication Plan
- Stakeholder List
- SAF meeting agenda, materials, presentations, summaries
- Workshop agenda, materials, presentations, summaries

Task 2 Compile and Review Data; Extend and Update Data Management System (DMS)

SBCWD has been collecting and compiling groundwater data annually including water levels, water quality, and water use for the Annual Groundwater Report. These data are compiled in a relational database, including capabilities for queries to quickly check and summarize data. The primary effort in Task 2 will be to review and update the current data management system (with respect to SGMA requirements and DWR BMPs), to identify data gaps, and to support the GSP monitoring program. A single comprehensive DMS is planned with capabilities to distinguish data according to subbasins and management areas.

2.1 Data Types and Sources

The GSP will build on a solid foundation of data management and reporting. SBCWD has prepared Annual Groundwater Reports for the subbasins for over 30 years; these annual reports compile and analyze a range of data addressing climate, groundwater levels/storage, water quality, surface water flow, water imports, wastewater discharges and water recycling, subbasin water balances, and water use in the context of basin management.

Major data types and sources are listed below; this task will address these data sources with a focus on update and extension of the data sets to address all sustainability criteria and to encompass the subbasins as defined by DWR.

Climate Data (precipitation, evaporation, temperature)

- California Irrigation Management Information System (CIMIS) Stations
- PRISM Model Precipitation Contour Maps from the Oregon Climate Service (Parameter-elevation Relationships on Independent Slopes Model), produced through the Western Regional Climate Center (WRCC)

Surficial Data Sets available for the Subbasins

- Topography – National Elevation Dataset (NED) from USGS, 10-meter and 30-meter
- Aerial Photography – National Agriculture Imagery Program (NAIP) administered by the U.S. Department of Agriculture (USDA) Farm Service Agency
- Soils – USDA National Resources Conservation Service (NRCS), including the Soil Data Viewer 6.0 add-in to ArcMap for analysis of soil properties, soil permeability, and restrictive layers
- Geology maps – Geologic Map for the Santa Cruz Quadrangle, California, 1: 250,000 and California Geologic Survey shapefiles.

Land Use

- Department of Water Resources (DWR) crop types on agricultural lands through the Division of Planning and Local Assistance

- Crop Coefficients from DWR Consumptive Use Program
- County Crop Reports
- California Farmland Mapping and Monitoring Program (CFMMP) maps
- Land Use and General Plans: County, Hollister, San Juan Bautista

Aquifers and Aquifer Properties

- DWR Well Completion Reports
- Geophysical logs from local agencies
- Local hydrogeologic investigations from public agencies
- Estimated specific capacity and aquifer property data from numerical model
- Published literature (DWR and others) and individual public agency studies on aquifer hydraulic properties including transmissivity, hydraulic conductivity, and storage parameters

Groundwater Elevation Data

- Groundwater level data from SBCWD database, 1977 to present
- Online data from the DWR CASGEM website (Data Library)
- USGS data from the National Water Information System (NWIS) website
- Unpublished water level files from individual water agencies in the subbasin (both production wells and monitoring wells)
- Data from one nested monitoring well

Groundwater Quality Database

- Public water supply well water quality monitoring data (Division of Drinking Water, State Water Resources Control Board)
- Unpublished water quality data from individual water agencies in the subbasin
- Local investigations for specific groundwater quality issues (e.g., nitrate and arsenic) available from local agencies
- Salt and Nutrient Management Plan
- GeoTracker data from the State Water Resources Control Board
- Data from the Groundwater Ambient Monitoring and Assessment (GAMA) Program

Production Wells/Pumping Data

- Municipal water supply wells
- Private irrigation wells; currently measured in Zone 6 only
- Other private irrigation wells
- Small water system wells
- DWR well completion reports

Water Resources Planning Documents and Technical Studies

Numerous planning documents and technical studies are available that will be incorporated into the GSP; recent key documents are listed below. State planning documents will also be included, including the Water Quality Control Plan (Basin Plan).

- Annual Groundwater Reports
- Groundwater Management Plan (1998 and 2003)
- Development of a Water Quality Monitoring Program (2004)
- Salt Nutrient Management Plan (2014)
- Pajaro River Watershed Integrated Regional Water Management Plan (2007)
- Hollister Urban Area Water and Wastewater Master Plan Report (2008)
- Urban Water Management Plan (2016)
- San Benito County General Plan Update (2016)

2.2 Study Periods

SGMA documentation and analysis involves definition of various study periods (and time steps) for historical, current, and projected future conditions; for example, historical conditions must include at least 10 years and future conditions involve projection of 50 years of rainfall/streamflow conditions. This task will define study periods that satisfy GSP regulations and represent local conditions and will evaluate available data in terms of study periods/time steps. SBCWD has decades of data; for example, its Annual Reports present hydrographs extending back 40 years to 1976. Additional groundwater level data are available as early as 1915. Study periods (for example to support update of the numerical model) will be defined to be representative of long-term conditions, and to include wet and dry periods.

2.3 Technical and Reporting Standards

Compilation of data and information to support the GSP will adhere to applicable standards for data, reporting, monitoring, and GIS, as applicable (**Reg. § 352**). Data will be documented with source of the data, types and methods of measurements, and comments on protocols, when available. Well information will include available data per requirements of **Reg. § 352.4 (c)**.

2.4 Data Management System

GSP regulations (**Reg. § 352.6**) require development and maintenance of a data management system (DMS) capable of storing and reporting information relevant to the development or implementation of the GSP and monitoring of the basin.

The three current relational databases (stored in MS Access) will be expanded and updated to organize data needed for the GSP. The overall database structure includes tables that integrate with the way that SBCWD monitors and reports specific data elements. These tables will be reviewed and documented to make the database easy to update and to use. The Hydrology database contains water levels, climate, local reservoir releases, available

streamflow data, and monitoring well construction information tables. The soils and land use database contains data relating to DWR land use maps and NRCS soil studies. The Water Quality database was developed as part of the 2004 Development of a Water Quality Program, funded in part through a Local Groundwater Assistance grant. The Water Quality database and associated data entry tools have been updated triennially as part of the Annual Report. The database will be further updated for the GSP and well information will be cross referenced with the hydrology database to maintain consistent information on individual wells.

Task 2 Deliverables

- Description of sources, types, management, and QA/QC of data to support the GSP
- Final DMS. Electronic copies of the three relational databases and any additional databases developed through the process will be made available.

Task 3 Describe GSA and Plan Area

This task begins the preparation of the GSP with organization and compilation of the required information (per **Reg. § 354.2 – § 354.6**) on the GSAs (SBCWD and SCVWD) preparing the GSP. With description of jurisdictions, water supply purveyors, and land use planning agencies, this task sets the stage for cooperation and collaboration among agencies. This task also will document the areal distribution of water supply wells and will provide descriptions of existing water resources management and monitoring programs. These will lay the groundwork for consideration of the interaction of the GSP with existing management and monitoring programs and land use plans. Descriptions will distinguish the subbasins as needed for a single or multiple GSPs.

3.1 Present GSA Information

This task covers requirements in **Reg. § 354.6** and will introduce the management structure for the GSP. GSP preparation overall will be led by the SBCWD GSA, cooperating with SCVWD GSA per the July 5, 2017 MOU, which lays out the respective roles and responsibilities of the two GSAs in GSP preparation for the shared Hollister and San Juan Bautista subbasins. This subtask will describe each GSA and its respective legal authority.

3.2 Evaluate Funding for GSP Implementation

This task will evaluate the fiscal structure to fund GSP implementation. This evaluation will be summarized in the GSP document, in terms of the costs of implementation and how to meet those costs. This information will be developed as the GSP is prepared and will be provided with context in terms of the SBCWD's current revenue sources. It is noteworthy that SBCWD is authorized (through its founding legislation in California Water Code Appendix 70) to levy a groundwater charge or charges against all persons operating groundwater- producing facilities within a zone or zones. For example, (and as documented in the Annual Reports), SBCWD assesses charges to its Zone 6 water users reflecting the costs associated with groundwater monitoring and management, including the cost of purchasing Central Valley Project water and power charges associated with percolation.

Zone 6 overlaps portions of the Bolsa, Hollister, and San Juan Bautista subbasins (as defined by DWR) and the Central Valley Project facilities associated with Zone 6 are fundamental to the joint management of the subbasins.

3.3 Describe Plan Area and Institutional Setting

This task will describe the GSP Area (per **Reg. § 354.8)**, including development of GIS maps showing groundwater basins, GSP Area, jurisdictional boundaries, land use designations, and density of wells. This task will rely on previous work (e.g., Annual Groundwater Reports and Urban Water Management Plan), build on SBCWD's existing GIS, and utilize existing documents (e.g., county and city general plans).

Plan Area Maps and Basin Boundary

As noted above, SBCWD plans to request consolidation of the Bolsa, San Juan Bautista, and Hollister subbasins. The subbasin boundaries will be documented on a map as they currently are defined, and with the requested consolidation. Consolidation of the subbasins would allow the development of one unified and effective GSP; this Unified GSP Area will be indicated on the maps, with acknowledgment that continuation of three separate subbasins could compel preparation of multiple GSPs.

Jurisdictional Areas

Jurisdictional boundaries of state land (e.g., Hollister Hills SVRA), cities, counties, and agencies with water management responsibilities will be identified using appropriate maps and will be described. No tribal or federal lands are known in the subbasins.

Water Supply and Water Purveyors

Water supply agencies in the GSP Area will be documented. In addition to SBCWD and SCVWD, these include the City of San Juan Bautista, City of Hollister, Sunnyslope County Water District, Tres Pinos County Water District, and Aromas Water District. These agencies have collaborated in groundwater management for many years and will be providing data and information to support the GSP. Water supply by source and use will be summarized and maps of service areas will be provided. It should be noted that the Hollister and Sunnyslope services overlap the San Juan Bautista and Hollister subbasins. Most of these agencies have monitoring wells that are used to track local groundwater levels and quality.

In addition, information on small public water systems in the subbasin will be obtained through County and State files and incorporated into the GSP. Although much of the groundwater pumping associated with these systems may involve small (de minimis) amounts, a better understanding and documentation of all pumping in the groundwater subbasin will be an objective of this GSP (in compliance with ***Reg. § 354.8 (a) (5)***).

Density of Wells

Numerous wells exist for monitoring, domestic, commercial/industrial, landscaping and agricultural irrigation purposes. SBCWD and SCVWD serve as the well permitting agencies in their respective counties and can provide information on wells.

DWR well completion records are a source of well numbers and general locations, although most records are inadequate for accurate well locations. DWR is compiling information from these well records as part of its Technical Assistance Program, scheduled for release in a few months. Those data, along with other information described above, will be reviewed for possible incorporation into the well inventory and well map.

A well density map showing wells per square mile will also be developed using dasymetric or similar mapping techniques (***Reg. § 354.8 (a) (5)***). This will support identification of groundwater-dependent areas by well types.

3.4 Describe Current Monitoring Programs

SBCWD has implemented a regional water resource monitoring program for the GSP Area with substantial data readily available for decades. This has been a collaborative effort involving local water purveyors, stakeholders, and state agencies. As summarized in the Annual Reports, current monitoring includes collection of data addressing climate, groundwater levels/storage, water quality, surface water flow, water imports, wastewater discharges and water recycling, managed aquifer recharge (percolation), and water demands (by use, source, and subbasins). Nonetheless, this monitoring program has been focused on portions of the GSP Area and on groundwater management issues identified in earlier Groundwater Management Plans. In addition, it is uneven for various historical reasons; for example, groundwater pumping is measured in SBCWD Zone 6 but not elsewhere. Accordingly, the monitoring program will be reviewed in terms of extension to cover the entire GSP Area, to identify data gaps, and to assess effectiveness in tracking sustainability indicators. This task will include consideration of how existing monitoring helps or hinders GSP monitoring.

3.5 Describe Water Resources Management Programs

SBCWD has had a leading role in water resource management programs, which are collaborative efforts with multiple agencies and organizations. Management activities are regularly summarized in the Annual Reports. Based on these, a brief history of groundwater management activities will be developed to provide context for ongoing programs.

3.6 Describe Land Use Planning

This task will describe land uses and land use planning (per ***Reg. § 354.8***). Land use was mapped by DWR in 2002, updated to 2010 using available aerial photography, and documented in the 2012 Annual Report. Recognizing ongoing changes (e.g., increases in vineyards), land use will be updated to current conditions, as data are available.

General Plans, specific plans, and other planning documents (specifically from San Benito and Santa Clara counties and cities of Hollister and San Juan Bautista) that affect land use and water use will be compiled and summarized. This task also will address 1) how the land use plans could affect the ability of the GSA to achieve sustainable groundwater management over the planning and implementation horizon, and 2) how GSP implementation will affect the water supply assumptions of land use plans.

Well permitting is handled by SBCWD and SCVWD for their respective counties; this section will summarize the well permitting processes, standards and policies.

3.7 Incorporate Additional GSP Elements

Additional elements are referenced in ***Reg. § 354.8 (g)*** for inclusion in the GSP; a list of these elements is provided below. Similar elements (tailored to San Benito issues) were identified in the 1998 and 2003 GWMPs; these and the elements below will be reviewed for contribution to the GSP.

- Control of saline water intrusion
- Wellhead protection
- Migration of contaminated groundwater
- Well abandonment and well destruction program
- Replenishment of groundwater extractions
- Conjunctive use and underground storage
- Well construction policies
- Groundwater contamination cleanup, recharge, diversions to storage, conservation, water recycling, conveyance, and extraction projects
- Efficient water management practices
- Relationships with State and federal regulatory agencies
- Land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity
- Impacts on groundwater dependent ecosystems

3.8 Summarize Notice and Communication

As required in ***Reg. § 354.10***, this task will summarize the notification and communication by the GSA with interested parties. The summary will document beneficial uses and users of groundwater in the GSP Area, how land uses and other parties are affected by groundwater use, and how all parties have been consulted. The summary will include a list of public meetings regarding the GSP and comments received. A Communication Section providing the details required in ***Reg. § 354.10(d).*** Development of the communication section is part of the Outreach and Stakeholder Engagement (see **Task 1** of this Work Plan).

Task 3 Deliverables

- Administrative Draft and Draft GSP sections for Administrative Information and Plan Area Description
- Items required for submittal to DWR as identified in **Reg. § 354.6** including the name and address of the GSAs (SBCWD and SCVWD), persons with management authority for implementation of the GSP, designation of the GSP Manager and contact information, demonstration of the legal authority to implement the GSP, and the costs of GSP implementation and how the GSAs plan to meet those costs.

Task 4 Describe Hydrogeologic Conceptual Model and Groundwater Conditions

The hydrogeologic conceptual model (HCM) provides a description of the structural and physical characteristics that govern groundwater occurrence, flow, storage, and quality. The HCM and analysis of groundwater conditions will cover the entire GSP Area, thereby providing a unified context while also providing basin-specific information if multiple GSPs are required. This discussion should serve as a basis for definition of Management Areas, as warranted. Overall, this task will utilize existing information to describe how the local surface water-groundwater system works; the approach and methodologies will comply with **Reg. § 354.14**.

4.1 Hydrogeological Conceptual Model

This task involves analysis and description of the hydrogeologic framework, including the geometry and structural controls of the groundwater basin, delineation of aquifers and aquitards, and evaluation of aquifer properties. The geologic structure of the GSP Area is highly complex (for example, with major faults that affect groundwater flow) and has not had a comprehensive evaluation since 1992. Moreover, the stratigraphy has proven difficult to interpret; for example, previously-hypothesized Pleistocene lakes have disappeared upon close examination of geologic data. This task will provide a fresh examination of the hydrogeologic setting from a groundwater basin management perspective.

Describe Physical Setting

The first subtask will describe the physical setting of the GSP Area and provide regional maps:

- Topography (which varies substantially across the GSP Area) and general drainage
- Soil types and characteristics
- Regional geologic setting, including surface geology
- Location of faults (e.g., San Andreas Rift Zone, Calaveras Fault and others)
- Geologic structures (e.g., Sargent Anticline).

Describe Principal Aquifers and Aquitards

The principal aquifers may be summarized as younger alluvium along major streams, older alluvium, and Tertiary non-marine deposits. Despite various geologic investigations, differentiation of specific formations, aquifers, and aquitards generally has been difficult, mostly reflecting the heterogeneity and gradational nature of the units. While those studies have confirmed vertical water-level gradients within the basin deposits, those appear to be related to the depth of pumping, not to specific confining layers. No broad pattern of stratigraphy has thus far been identified in the basin.

Prepare Cross Sections

Regional data, previous studies, and geologic maps will be used to develop several regional cross sections that illustrate the geologic structures and hydrogeologic formations across the GSP Area. Localized cross sections will also be prepared to provide more detail for the hydrostratigraphy of the Bolsa, Hollister, and San Juan Bautista subbasin areas.

Describe Aquifer Properties

Aquifer properties (including transmissivity, vertical and horizontal hydraulic conductivity, and storage parameters) have been developed in the GSP Area by multiple investigators to support development of numerical groundwater flow models. In addition, local information is available from pumping tests. These data will be considered to develop an understanding of aquifer properties areally and vertically. As suggested previously, distinct boundaries between aquifers and aquitards have been difficult to discern. Nonetheless, artesian conditions have occurred in the GSP Area and will be documented in terms of changing areal extent over time. The role of each known fault as a barrier to groundwater flow will be described based on groundwater model calibration results and water-level patterns when groundwater levels were at historic lows in the 1970s.

Describe the Bottom of the Basin

For practical purposes, the bottom of the basin is defined by the depths of wells and a transition from fresh to saline water quality rather than a contact between unconsolidated basin fill deposits and consolidated bedrock. Most of the basin thickness consists of the Purisima Formation, which contains non-marine deposits in its upper units and marine deposits in its lower units. This gives rise to differences in water quality with depth. As a result of folding, the Purisima Formation also forms the hills on either side of the San Juan Bautista (Lomerias Muertas, Flint Hills, Bird Creek Hills, etc.). Although these areas are within the basin, permeability appears to be lower than in the valley areas due to effects of folding and minor, localized faulting.

4.2 Groundwater Conditions

This task documents current and historical groundwater conditions (per **Reg. § 354.16**) building on existing data, and monitoring and reporting programs. As summarized below, considerable information is being compiled and analyzed as part of SBCWD's ongoing Annual Reports. These Annual Reports, which have been produced at the direction of the SBCWD Board of Directors for over 30 years, are anticipated to merge into the GSP Annual Reports of the future. These reports address not only groundwater conditions, but also climate, surface water, and imported water. Accordingly, these topics also are addressed here. Documentation in this task will include the following:

- Climatic setting including rainfall and reference evapotranspiration patterns (areal and temporal), temperature data
- Surface water gage locations and periods of record for the Pajaro, Pacheco, and San Benito river systems, and miscellaneous measurements

- Source and point of delivery for local reservoirs (e.g., Hernandez and Paicines) and imported water supplies (Central Valley Project)
- Groundwater level data (measured quarterly in 85+ wells; compiled into database; autumn data analyzed and mapped for the Annual Report)
- Groundwater storage (estimated annually (October-October) for the Annual Report)
- Groundwater quality data (compiled and analyzed triennially for the Annual Report)

While the program of monitoring, data analysis, and reporting on groundwater conditions has been maintained continuously for over 30 years, it has been focused on the more intensively developed and managed portions of the subbasins. Accordingly, this task will expand the coverage to include identification and review of areas that have not been the focus of previous groundwater conditions analysis. This effort will be integrated into the development of the monitoring network (Task 11).

Management efforts to date have addressed the sustainability criteria to various degrees. However, SGMA provides a systematic process for evaluation of sustainability criteria, which will be addressed as follows:

Document Historical and Current Groundwater Elevations

Long-term water records spanning more than 50 years will be presented to illustrate the interaction over time of groundwater levels with land use changes and with development and management of groundwater and surface water supplies. An approximate 40-year study period representing average hydrologic conditions (and ending with recent water levels) will be used to evaluate wet and drought cycles and annual changes in groundwater over time. Study periods and analyses will be coordinated with Llagas subbasin to the extent practical.

As noted above, specific aquifers and aquitards have not been differentiated in the GSP Area because of the heterogeneity and gradational nature of the units. Although the issue will be examined, it is anticipated that groundwater elevation information will not be subdivided.

Develop Hydrographs to Analyze Trends and Fluctuations in Water Levels

To track groundwater levels, the Annual Reports provide composite hydrographs (from 1976 to present) representing 50 selected wells distributed across eight designated subareas. The Annual Reports also present hydrographs with comparison to annual pumping on a subarea basis. In addition, the current DMS has data from over 227 wells ranging from 1924 to the present. These will be reviewed for inclusion in the GSP, thereby providing continuity of analysis and reporting. However, the selection and grouping of key wells will be reexamined in terms of areal coverage with Bulletin 118 boundaries and potential management areas, and in terms of suitability to evaluate and track sustainability criteria.

Hydrographs submitted to DWR will provide the required information listed in **Reg. § 352.4 (e)**, including a unique site identification number and ground surface elevation, and will use the same datum and scaling, when practical. As required, hydrographs will be submitted electronically in accordance with DWR procedures.

Prepare Water Level Contour Maps

Groundwater elevation contour maps for autumn (seasonal low) conditions are currently prepared for the Annual Reports; annual data are provided in an appendix. In conjunction with refinement of the monitoring program (see Task 11), the groundwater level monitoring network and resulting contour maps will be revaluated. This will account for extension toward Bulletin 118 basin boundaries, adequate density of wells, and coverage relative to sustainability criteria. This task will involve preparation of extended and revised maps for seasonal low (October) and seasonal high (April) conditions.

Groundwater level contour maps also are used in the Annual Reports to provide three profiles of historical groundwater levels across the GSP Area. Such profiles have been prepared since 1976 and provide useful comparison of current groundwater levels with historical high and low levels; these will be reviewed for utility in defining and tracking minimum thresholds for groundwater levels.

Estimate Change of Groundwater in Storage

The Annual Reports provide annual groundwater in storage change maps (October to October). Like the water level contour maps, these will be reevaluated with respect to basin boundaries and as the monitoring network changes. Consistent with GSP requirements (**Reg. § 354.16(b)**), a graph will be prepared that depicts annual change in storage along with annual groundwater use and water year type.

Characterize Groundwater Quality

Groundwater quality is monitored by SBCWD at least annually in 18 wells, with a focus on TDS and nitrate. In addition, information is compiled from local and state agencies into a database that contains over 450,000 records from water systems and regulated facilities. The Water Quality database (part of the larger DMS) was originally developed through a local groundwater assistance grant from DWR. The database continues to be updated and evaluated on a triennial basis for the Annual Reports. Monitoring for the Salt and Nutrient Management Plan is closely coordinated. TDS and nitrate trends are tracked in the SNMP, with reference to Basin Plan objectives. Appendices provide documentation of the monitoring network, distribution of TDS and nitrate, and location of regulated facilities. This monitoring program and database provides a solid basis for characterization. Nonetheless, it will be reviewed in conjunction with refinement of the monitoring program (see Task 11) and potentially extended.

Describe Land Subsidence and Potential for Subsidence

Land subsidence has not been a known issue in the GSP Area. Nonetheless, its potential was recognized in the 2003 Groundwater Management Plan, which established a specific water quantity criterion to manage groundwater levels, to maintain groundwater storage, and to limit drawdown to historical low levels of about 1977 to preclude and/or minimize the potential for ground settlement (i.e., inelastic land subsidence). SBCWD management of groundwater levels has been successful in meeting these objectives, except for local

declines in recent years at the end of the drought. This indicates little potential for subsidence. Nevertheless, available information will be used to discern if inelastic subsidence has occurred (and if so, where and how much).

Consistent with the existing management, water level monitoring may serve as a proxy for land subsidence monitoring in the GSP.

Examine Interconnected Surface Water and Groundwater-Surface Water Interaction

With the exception of the Pajaro River, creeks and rivers that cross the basin flow only seasonally. Along some reaches, perennial flow results from groundwater seepage into the channels when groundwater levels are relatively high. These include the San Benito River in the western half of the San Juan Bautista, Tequisquita Slough, and Pacheco Creek as it approaches San Felipe Lake. Surface water-groundwater interconnection will be described based on studies of these gaining reaches in the early 2000s and a modeling study of pumping effects on Pacheco Creek flows in 2014. The Pajaro River represents the basin's northern boundary. Santa Clara Valley Water District (SCVWD) is the GSA for the Llagas basin which shares the Pajaro River as a boundary. SBCWD and SCVWD share data on water levels across this boundary and will work together to examine the interconnection between the Pajaro River and the ground water basin.

Task 4 Deliverables

- Administrative Draft and Draft GSP sections for Hydrogeologic Conceptual Model and Groundwater Conditions

Task 5 Identify Management Areas

If needed, the GSP Area will be divided into Management Areas ***(Reg. § 354.20)*** defined to facilitate sustainable groundwater management and GSP implementation.

Previous tasks describing water supply, groundwater management, and hydrogeology will form the basis for proposing Management Areas. The GSP regulations note that a Management Area may involve different criteria (minimum thresholds and Management Objectives) and management actions for each Management Area based on differences in water use sectors, water source types, hydrogeology, or other factors. Management Areas will be discussed through a public process involving local agencies and stakeholders.

Three key factors are: 1) that the GSP Area currently consists of three DWR-defined subbasins, 2) that SBCWD will request consolidation, and 3) that distinct subbasins had been defined by SBCWD in 1996 and used thereafter. These SBCWD subbasins, while not extending to DWR boundaries, were consistent with SGMA in addressing water supply, management, and hydrogeologic factors. While honoring DWR boundaries, management areas may be similar to previously-established subbasins, providing continuity of management, analysis, and reporting.

Task 5 Deliverables

- Memorandum defining management areas, including map of Management Areas

Task 6 Quantify the Water Budget

Water budgets will be quantified for historical and current conditions per ***Reg. § 354.18***. This will involve use of past studies, the existing model, and recent monitoring data and investigations; water balances developed by SCVWD for the adjacent Llagas Basin also will be reviewed to promote a consistent approach. SBCWD has prepared water budgets on a triennial basis for the northern subbasins (as locally defined) with reporting through its Annual Groundwater Report. The GSP Water Budget will build off these water balances and include use of available data and best available science to quantify inflows, outflows, change in storage and overdraft. Water budgets will address subbasins and management areas as required.

6.1 Water Balance Information

This task will document the available data for a historical water balance of the basin. Water budgets prepared for the Annual Report will be a key resource. Additional information will be required to update and expand these water budgets as the GSP Area extends farther than the targeted area of the Annual Report. Available information includes:

- Climate data
- Soil data (to estimate natural percolation)
- Groundwater pumping (annually within Zone 6)
- Imported water use
- Recycled water use
- Selected stream gages on the San Benito River, Willow Creek, and Pacheco creek (historical and/or current data)
- Volume of reclaimed water percolated
- Reservoir releases (Hernandez and Paicines Reservoirs)

However, data gaps are recognized that must be bridged through estimation, additional studies, monitoring, further analysis, or assumptions. These data gaps include:

- Groundwater pumping (outside Zone 6)
- Spatial distribution of agricultural land by crop
- Rate of percolation in surface water ways (synoptic surveys and flow monitoring are needed on many creeks and rivers)
- Irrigation schedules and efficiencies (needed to calculate return flows from agricultural water use)
- Storativity estimates across the basin
- Subsurface flow

6.2 Water Balance Description

Consistent with the hydrogeologic model and the numerical model, this task will provide detailed qualitative descriptions of the inflows and out flows of the basin. Inflow and outflow between management areas will be discussed. The relative uncertainty in the storativity values of the basin and its impact on change in storage volumetric estimates will be documented.

6.3 Quantification of the Water Balance

Historical water budgets will be used to consider how past conditions, land use development, and water availability have affected overdraft. Quantification of the water budget will extend back a minimum of 10 years; recognizing the option to extend the water balance further in the past to capture a broader range of conditions. A sustainable yield will be estimated and discussed in terms of the availability/reliability of surface water supply deliveries, which are critical to local sustainability. This section also will discuss basin responses to water supply and demand trends relative to water year types.

Consistent methods will be applied to estimate the inflows and outflows for the historical water balance and these same methods will be used to apply to a forecasted future water balance. It is understood that DWR will provide guidance on evaluating climate change; assumptions on future conditions such as climate, water use and water availability will be documented and the uncertainty of the future water balance will be addressed.

6.4 Identify and Fill Data Gaps

The water balances (past and future) will be based on best available data. Data gaps will be identified and prioritized. One key data gap already identified (and listed above) is the amount of groundwater pumping in the Bolsa and South San Juan Bautista areas of the basin. Groundwater pumping is measured in the Zone 6 portions of the three subbasins, and SBCWD will consider options for consistent and improved measurement of groundwater pumping across the GSP Area. An additional data gap concerns recharge from surface water (e.g., San Benito River) in the South San Juan Bautista area.

Task 6 Deliverables

- Administrative Draft and Draft GSP sections for Water Budget

Task 7 Update and Extend Existing Groundwater Model

SGMA effectively requires that groundwater modeling be used to demonstrate that a GSP will achieve sustainable basin operation (**Reg. § 352.4)**. SBCWD has a numerical model that has been developed, periodically updated, and used for various scenarios (Yates, 2001). This existing MODFLOW model (and linked surface hydrology model and pre-processing utility programs) will be assessed for its applicability to SGMA including consistency with modeling BMPs. This comprehensive groundwater model will serve as the numerical modeling tool for all three subbasins.

7.1 Update Existing Model

This task includes updating the model through 2016, recalibration, and simulation of up to six management measures. A publicly available report with available supporting documentation will be developed as part of the GSP.

The numerical model will be updated to reflect the hydrogeological conceptual model and water balance described in the above tasks. The objectives and variables involved in proposed management scenarios will be used to inform the model update. At a minimum, the model area must be extended to include all the San Juan Bautista subbasin (the current model only extends to the Tres Pinos area) and will be updated through 2016. The model grid should be discretized appropriately based on proposed projects to be evaluated.

The need for augmenting the model to include simulation of water quality will also be considered. This capability could be needed to account for the variable salinity of groundwater throughout the basin and to evaluate opportunities and constraints related to groundwater demineralization. Previous versions of the model have simulated the flow and transport of TDS to simulate recycled water recharge projects.

7.2 Model Scenarios

Simulation of future scenarios will identify which management actions and water budget situations commonly result in undesirable results. These simulations can aid in selecting and refining proposed management actions and evaluating their potential effects. The update of the model will also help further the understanding of the hydrogeologic conceptual model, water balance, and sustainable yield for the basin. The model update will identify data gaps, uncertainty, and sensitive parameters. These data gaps in turn can inform monitoring and future data collection.

Task 7 Deliverables

- A publicly available report documenting the model and scenario results

Task 8 Define Sustainability Criteria

This task will build on the hydrogeologic conceptual model, groundwater conditions, and water budgets to define and evaluate sustainability for the GSP Area. Understanding that seawater intrusion is not applicable, this task will systematically address each of the five remaining sustainability indicators (while recognizing that these are interlinked and must be handled consistently across the basin.) This task will describe the cause of undesirable results and the effects on beneficial uses/users and landowners/property interests.

While SBCWD has a long history of groundwater management, such management has not included systematic quantification of undesirable results, minimum thresholds, or measurable objectives to the extent required by SGMA. Defining these specific sustainability criteria, eliciting input from the SGMA Advisory Forum and stakeholders, and creating a detailed plan for future sustainability will be a focused effort. As required, sustainability

criteria will be defined on a subbasin and/or management area basis, mindful of the entire GSP Area (and adjacent Llagas Basin as well).

8.1 Sustainability Goal

Through meetings, workshops and communication, SBCWD, local agencies, and interested parties will come together for a shared vision of how groundwater can be managed sustainably. This task will summarize information from the hydrologic conceptual model, basin setting, and water budget; consider beneficial uses and users; and establish the sustainability goal, the measures to be implemented for operation within sustainable yield, and how sustainability can be maintained through the planning and implementation horizon.

8.2 Undesirable Results

To define undesirable results (**Reg. § 354.26**), this task will evaluate the five sustainability indicators (all except seawater intrusion) in terms of:

- Chronic lowering of groundwater levels
- Reduction of groundwater storage
- Degradation of water quality, including contaminant migration
- Land subsidence
- Depletion of connected surface water with adverse impacts on beneficial uses.

A stakeholder process is central to this evaluation. Definition of undesirable results will begin with identification of the beneficial uses of groundwater and surface water in the GSP Area, consideration of conditions that are deemed significant and unreasonable for each indicator, and evaluation of basin-wide conditions that cause undesirable results. SBCWD will utilize its long history of groundwater level monitoring and management to summarize historical groundwater level lows and the resulting impacts (for example, well yield declines, water quality deterioration, or subsidence). The numerical model also may be applied to explore undesirable results (for example, depletion of connected surface water) given current land uses, water demands, and operating conditions. The definition of undesirable results also will be based on applicable local, state, and federal standards, especially as applied to beneficial uses and water quality objectives in the Basin Plan. Agricultural water standards and problematic constituents (e.g., boron) for various crops will also be addressed. Potential effects of undesirable results on land use and property interests will be considered and discussed with stakeholders.

8.3 Minimum Thresholds

Minimum thresholds are quantified for each sustainability indicator and used to define undesirable results. Minimum thresholds for each sustainability indicator will be defined, justified and explained, quantified with comments on uncertainty, and linked to specific monitoring sites. Each will be explained in terms of how they help avoid undesirable results, how they might affect beneficial uses/users and landowners/property interests, how they relate to established regulatory standards, and how they will be measured. Descriptions of

minimum thresholds will be consistent with DWR GSP regulations (**Reg. § 354.28**). If management areas are used, the minimum thresholds for these individual areas will be defined and possible undesirable results outside the management area will be discussed, if applicable.

Groundwater levels will be used to define a minimum threshold for at least one (or more) sustainability indicator(s), such that significant and unreasonable lowering of groundwater levels below the defined elevation is deemed an undesirable result. Such minimum thresholds will likely differ across the GSP Area and will be defined at representative monitoring sites (***Reg. § 354.28***). Definition of representative monitoring sites will be linked to evaluation and development of the monitoring program. Groundwater levels may be used as a proxy for subsidence; given that no subsidence has been documented despite historical low groundwater levels, using water levels as a proxy would avoid significant land subsidence.

8.4 Define Measurable Objectives

The measurable objective is a quantifiable goal for the maintenance or improvement of specified groundwater conditions related to each sustainability indicator and the sustainability goal. This task will build on previous information and analysis to establish sustainability objectives (**Reg. § 354.30**) and milestones, if needed. Consistent with SGMA, these will be quantified for each sustainability indicator, consistent with minimum thresholds, and reasonably flexible. This GSP section will describe the pathway to sustainability the basin within 20 years of GSP implementation, including a description of interim milestones for each relevant sustainability indicator, if needed, using the same metric as the measurable objective, in increments of five years.

Task 8 Deliverables

- Administrative Draft and Draft GSP sections on Sustainability Criteria

Task 9 Describe Management Actions and Projects

This task will describe management policies, programs, and projects for sustainable management. Already recognized and proposed/planned actions and projects will be summarized in terms of applicability to sustainability criteria. Additional actions and projects likely will be identified through the GSP process as local agencies and stakeholders consider undesirable results and thresholds; this task describes the process in which projects will be identified, evaluated, and selected relative to sustainability indicators. For selected projects, this task will describe projects in terms of permitting, CEQA, and legal authority and how they would be implemented, including notification to the public and agencies when they are triggered or terminated. Water imports will be described in terms of availability and reliability, and groundwater management (e.g., recharge, demand management) will account for drought and wet years.

Given that historical groundwater management has been comprehensive across subbasin boundaries, it is likely that some projects will be basin-specific or local. These will be described on the basis of subbasins and/or management areas. Some projects will extend across the current subbasin boundaries; if the three subbasins are not consolidated, descriptions will be repeated in each GSP.

9.1 Identify Management Actions and Projects

The first step identifies relevant projects and actions. Previously proposed projects (including those in the IRWMP and GMP) will be included in this initial phase. Additional projects may be suggested by the SAF and during stakeholder outreach. Three major types of projects include demand management projects, managed recharge, and conjunctive use.

- Demand management options include water conservation, efficient management practices for water delivery and use, and—with more severe water supply shortages and groundwater storage declines—voluntary fallowing programs and pumping regulation. SBCWD and local agencies have many ongoing water conservation programs administered through the Water Resources Association of San Benito County. New projects will build on this foundation of outreach and education.
- Managed recharge projects will be considered with a variety of locations, source water, and methods. Historically, local and imported surface water has been recharged along surface water ways and wastewater has been percolated in disposal ponds. Targeted recharge projects may serve to replenish groundwater resources as needed.
- SBCWD relies on a portfolio of water supply sources: groundwater, imported water, recycled water, local surface water. Projects for augmenting each one of these separate supplies should be considered, in addition to conjunctive use to manage these supplies efficiently. In lieu recharge, whereby groundwater is replaced with surface water or recycled water supplies when available, has been critical to local sustainable management, reserving groundwater resources for when surface supplies are unavailable.

9.2 Evaluate Management Actions and Projects

Management actions and projects will be evaluated based on pre-defined criteria, including benefits relative to sustainability indicators, general technical feasibility, costs, and environmental impacts among others. A list of screening criteria will be developed in this task and refined through discussion with the SAF. The numerical model will be used for a screening level analysis to assess the level of impact on the basin. Projects that show potential to benefit sustainability will be selected as preferred projects.

9.3 Assess Technical Feasibility/Engineering of Preferred Projects

Once projects have been identified as preferred alternatives, the technical feasibility will be assessed including reliability and access to water supply source. Detailed model scenarios will assess the technical feasibility of the project. A high-level assessment of required property or permits and cost benefit analysis will be performed. The preferred projects will be ranked and documented.

9.4 Develop Implementation Plans for Selected Projects

This task will involve development of an implementation plan and cost estimate and description of how projects and actions are funded and/or financed. Input is assumed from the SAF regarding implementation and funding of proposed management measures. This task will also document how each project affects separate management areas and how management actions may respond to changing conditions in the basin.

Key points for each proposed project will be documented in accordance with SGMA guidelines including:

- Circumstances for implementation
- Public noticing
- Permitting, CEQA compliance, and regulatory process
- Time-table for initiation and completion, and the accrual of expected benefits
- Expected benefits and how they will be evaluated
- How the project or management action will be accomplished
- Legal authority required
- Estimated costs for the projects and managements and plans to meet those costs
- Management of groundwater extractions and recharge
- Relationship to additional GSP elements
- Interbasin and Coordination Agreements (as applicable)
- Groundwater Model Documentation
- Public Comments and Responses

Task 9 Deliverables

- Administrative Draft and Draft GSP sections for Management Actions and Projects
- Appendix with preliminary designs for preferred portfolio of actions and projects

Task 10 Plan for GSP Implementation

This task will lay out the steps for implementation of management actions and projects, with scheduling and estimation of costs. Given that historical groundwater management has been comprehensive across subbasin boundaries, it is likely that some projects will be basin-specific or local. Their implementation will be described for subbasins and management areas. Some projects will extend across the current subbasin boundaries; if the three subbasins are not consolidated, implementation plans will be repeated in each GSP.

10.1 Estimate of GSP Implementation Costs

Based on selected projects, a high-level estimate of GSP implementation costs will be developed. The GSA, with input from the SAF, will prepare a plan to fund these projects, both capital and operations and maintenance costs.

10.2 Schedule for Implementation

A long-term schedule for implementation of projects, suggested monitoring improvements, and other management actions will be detailed. A timeline will be prepared to highlight critical deadlines for groundwater sustainability.

10.3 Annual Reporting

This task will provide an outline of future Annual Reports, including graphics for portrayal of monitoring data and description of the progress toward sustainability. This will build on the existing Annual Groundwater Reports, which have SBCWD-specific requirements for content and for scheduling. It is anticipated that the SBCWD and SGMA annual reporting will be melded. For example, the presentation of Annual Reports to the Board of Directors is slated for the second Monday in January, while the annual SGMA reports are due to DWR by April 1 of each year following the adoption of the GSP. These schedules can be combined.

Current Annual Groundwater Reports already include general information about the basin, groundwater elevation data and hydrographs, groundwater extractions, surface water supplies used, total water use by source and sector, change in groundwater storage, and relevant graphics showing changes and trends.

These current Annual Groundwater Reports must be updated to incorporate the entire basin boundary including areas that currently do not have groundwater use estimates. In addition, the SGMA Reports will include a description of progress towards implementing the GSP, including achieving interim milestones, and implementation of projects or management actions since the previous annual report. Preparation of a single GSP and Annual Report is preferred; however, if the three subbasins are not consolidated, SBCWD will submit multiple SGMA Annual Reports as required.

Task 10 Deliverables

- Annual GSP Report Outline

Task 11 Develop Monitoring Networks and Protocols

This task will establish the GSP monitoring network and protocols that will: 1) provide data to the hydrogeologic conceptual model and water budget and future model updates, 2) provide tracking and early warning regarding groundwater conditions and undesirable results, and 3) demonstrate progress toward and achievement of sustainability. Consistent with monitoring BMPs, the monitoring network will collect data of sufficient quality, distribution, and frequency to characterize groundwater and related surface water conditions and to track changes, including short-term, seasonal, and long-term trends.

The overall approach will involve development of a comprehensive monitoring program that can be subdivided by subbasin if required for evaluation.

11.1 Evaluate Existing Networks

This task will build on existing monitoring programs; SBCWD currently has networks for monitoring groundwater levels, water quality, surface water, and water use (for the Zone 6 portion of the GSP area).

Guided by the Data Quality Objective (DQO) process described in the Monitoring Network BMP, the network will be designed to fulfill explicitly stated sustainability goals and objectives, with identification of the data and analytical methods to evaluate sustainability indicators, definition of performance criteria, and development of a plan for obtaining data. Implementation of the monitoring network will be described in terms of objectives, specifically how the network will demonstrate progress toward achieving the measurable objectives, monitor impacts to beneficial uses or users of groundwater, monitor changes in groundwater conditions, and quantify annual changes in water budget components

11.2 Describe Monitoring Network

The monitoring network will be described in terms of its coverage of the relevant sustainability indicators, including the following:

- Density of monitoring sites and frequency of measurements to demonstrate short-term, seasonal, and long-term trends
- Scientific rational for site selection
- Consistency with data and reporting standards
- Corresponding sustainability indicator, minimum threshold, measurable objective, and interim milestone
- Location and type of each site on a map.

If management areas are used, this description of the monitoring network will provide detail appropriate for each management area. The monitoring network also will be developed to support consistency of data across basin boundaries both spatially and temporally.

11.3 Document Monitoring Protocols

This subtask will define the technical standards, data collection methods, and other procedures or protocols to ensure reliable and comparable data and methodologies, consistent with **Reg. § 352.2 and 352.4** and the Monitoring BMPs. The documentation will include a description of technical standards, data collection methods, and other procedures or protocols to ensure comparable data and methodologies.

11.4 Assessment and Improvement of Monitoring Network

This subtask will identify data gaps through the process above and consideration of the hydrogeologic conceptual model, water balance, modeling, and sustainability indicators. These data gaps may include augmented surface water data collection, subsidence, and other data needs. Resolution of data gaps will be addressed in the GSP Implementation Plan. Update of the GSP every five years will include evaluation of the monitoring network *(***Reg. § 354.38***)*.

Task 11 Deliverables

- Administrative Draft and Draft GSP sections for Monitoring Programs

Task 12 Prepare GSP Document

As indicated in the previous tasks, sections of the GSP will be prepared as the project progresses. In addition, comments will be incorporated as the GSP draft is developed This task involves assembling the document into a coordinated and unified report that clearly describes the data, methods, and analyses. If the subbasins are not consolidated, SBCWD will prepare multiple GSP documents that provide subbasin-specific information as required.

12.1 Assemble Draft GSP Sections into GSP document

The draft GSP sections will be compiled and assimilated into a comprehensive GSP. The Draft GSP will be presented at one of the last technical workshops, involving the GSA, SAF, and stakeholders. Comments will be received at the workshop, as well as written comments submitted following the workshop. For costing purposes, electronic submittals are assumed throughout this process.

12.2 Prepare Final GSP

GSA and stakeholder comments will be incorporated into the Final GSP. The document will be printed for final review by the SBCWD and SCVWD GSAs (15 copies are assumed) and presented at a public hearing, coincident with an SBCWD Regular or Special Board Meeting.

12.3 Prepare Files for DWR Submittal

The format for filing the supporting information for the GSP is unknown. The GSP document, DMS, supporting documents, and appendices will be prepared for upload to DWR as needed.

Task 12 Deliverables

- Electronic version (.pdf format) of the Draft and Final GSP
- 15 Printed copies of the Final GSP
- Appendices and DMS for DWR submittal

Task 13 Project Management and Communications

This task provides for a Project Management Plan that tracks schedule and budget on a monthly basis and provides regular updates to the SBCWD and the Advisory Forum. If required, progress reporting will distinguish subbasins.

13.1 Manage Project

The Project Management Plan will cover an approximate 3.5-year period and will require coordination between the consultant team, GSA personnel, and DWR for appropriate grant administration. Monthly invoices will document the hours and cost by team members, and show progress on Project tasks. A brief progress report will be prepared for each invoice showing progress made during the month, next steps for the following billing cycle, and status of schedule and budget. Invoicing and progress reporting will be consistent with the requirements of the DWR Grant Agreements and will ensure adherence to those details.

13.2 Conduct Progress Conference calls

The project team will conduct bi-weekly to monthly progress conference calls to coordinate tasks and share information and data. Work progress will be effectively tracked and obstacles will be identified at the earliest possible time. For calls to be productive and cost effective, not all team members will be present on all calls. Progress calls will be focused on current analyses and include those involved in related tasks.

13.3 Prepare Quarterly Progress Reports for DWR

This task will support the Project with quarterly progress reports to DWR. The GSA has a good track record with DWR grant-funded projects and is familiar with DWR progress report formats and content. The reporting process will be integrated into the Project Management Plan so that monthly information is incorporated into the quarterly formats as the project progresses.

Task 13 Deliverables

- Monthly progress reports including combined invoices and updates on budget and schedule
- Brief notes and action items from Progress Conference Calls
- Quarterly Progress Reports for DWR as part of the grant administration.