

<b>Fiscal Year</b> 2023-24	<b>Business Unit</b> 3860	<b>Department</b> Water Resources	<b>Priority No.</b> Click or tap here to enter text.
<b>Budget Request Name</b> 3860-019-BCP-2023-GB		<b>Program</b> 3230	<b>Subprogram</b> Click or tap here to enter text.

### Budget Request Description

Sustainable Groundwater Management Act - Program Delivery

### Budget Request Summary

The Department of Water Resources (DWR) requests \$14 million ongoing General Fund (GF) to fund 11 new positions and the support for 29 existing positions to address the emerging needs associated with Sustainable Groundwater Management Act (SGMA) implementation. This request will support meeting all obligations under SGMA, while also supporting the State's drought response efforts. DWR also requests \$900,000 one-time General Fund in FY 23-24 to support two existing positions that will develop an implementation plan for addressing actions identified in the California Water Commission's white paper published in May 2022 titled, "A State Role in Supporting Groundwater Trading with Safeguards for Vulnerable Users: Findings and Next Steps".

<b>Requires Legislation</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Code Section(s) to be Added/Amended/Repealed</b> Click or tap here to enter text.	
<b>Does this BCP contain information technology (IT) components?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	<b>Department CIO</b> Click or tap here to enter text.	<b>Date</b> Click or tap to enter a date.

**For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.**

**Project No.** Click or tap here to enter text. **Project Approval Document:** Click or tap here to enter text.

**Approval Date:** Click or tap to enter a date.

**If proposal affects another department, does other department concur with proposal?**  Yes  No

*Attach comments of affected department, signed and dated by the department director or designee.*

<b>Prepared By</b> Melissa Sparks-Kranz and Keith Wallace	<b>Date</b> 8/22/2022	<b>Reviewed By</b> Duard MacFarland	<b>Date</b> 12/15/2022
<b>Department Director</b> Cindy Messer	<b>Date</b> 12/15/2022	<b>Agency Secretary</b> Amanda Martin for Sec. Crowfoot	<b>Date</b> 12/15/2022

### Department of Finance Use Only

**Additional Review:**  Capital Outlay  ITCU  FSCU  OSAE  Dept. of Technology

<b>PPBA</b> Krystal Acierito	<b>Date submitted to the Legislature</b> 1/10/2023
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## **A. Budget Request Summary**

DWR requests \$14 million ongoing General Fund to fund 11 new positions and support 29 existing positions to address the emerging needs associated with SGMA implementation. This request will support meeting all obligations under SGMA, while also supporting the State's drought response efforts. DWR also requests \$900,000 one-time General Fund in FY 23-24 to support two existing positions that will develop an implementation plan for addressing actions identified in the California Water Commission's white paper published in May 2022 titled, "A State Role in Supporting Groundwater Trading with Safeguards for Vulnerable Users: Findings and Next Steps".

## **B. Background/History**

Groundwater is a vital water resource in California. On average, 79 percent of the total groundwater use in the state each year is used for agricultural purposes, 19 percent for human or household use, and 2 percent for managed wetlands. More than 33 million Californians (approximately 82%) rely on groundwater for a portion or for all their drinking water supply. Approximately 6 million Californians rely 100% on groundwater for all of the water needs, many of these communities are located in the rural or unincorporated areas in the San Joaquin Valley. Many of these communities are underrepresented communities and rely on private groundwater wells as their primary source of water.

Agriculture is a significant sector of California's economy, generating nearly \$50 billion in revenue in 2018 and employing more than 820,000 people. California agriculture irrigates more than 9 million acres of land using approximately 33 million acre-feet of water, of which approximately 14 million acre-feet comes from groundwater on average, which depends on surface water availability.

In an average year, 40 percent of the State's water supply comes from groundwater. During dry/drought years, that percentage rises to nearly 60 percent. Groundwater is considered California's "drought buffer." However, during the 2012–2016 drought, an estimated 3,500 domestic wells in the San Joaquin Valley, and hundreds more in the rest of the state, went dry leaving households and communities without water.

While California's surface water has been actively managed since 1914 by the State Water Resources Control Board through water rights, contract entitlements, and surface water diversion reporting, groundwater has lacked such management. In some areas of the State, this has led to significant declines in groundwater levels. Groundwater declines are proven to lead to land subsidence or the result of an aquifer collapsing and causing damage for two primary reasons: (1) it decreases the amount of water that can be recharged back into the aquifer by natural or direct means, putting the State at risk of not having that buffer for future droughts, and (2) the land overlying the groundwater aquifer literally sinks which can lead to significant structural damage. This is a compounding problem when subsidence damages conveyance structures like roadways, levees, and canals that are intended to deliver surface water to offset groundwater use.

Over the years there have been several attempts to improve groundwater management through voluntary or incentive-based means. For example, in 1992, Chapter 947, § 10750 et seq. of the California Water Code (AB 3030) was passed which encouraged local agencies to develop Groundwater Management Plans (GMPs). New GMP requirements were added in 2002 by Chapter 603, § 10753.1 et seq. of the California Water Code (SB 1938). Both AB 3030 and SB 1938 incentivized the development of GMPs by making them a requirement to receive State grant funds, but neither bill carried a regulatory component to verify GMPs were being implemented as planned. Hundreds of GMPs have been developed since 1992, yet groundwater levels continued to decline. California became aware of these groundwater level declines as the result of the passage of Chapter 1, § 10920 et seq. of the California Water Code (SB x7-6) in 2009, which established collaboration between local monitoring parties and DWR to collect statewide groundwater elevations, to be made available to the public. In response to the law, DWR created the California Statewide Groundwater Elevation Monitoring

(CASGEM) Program. The purpose of the program is to collect locally monitored groundwater level elevations for all 515 alluvial groundwater basins identified in DWR Bulletin 118. Current law requires DWR to make groundwater level information readily accessible and widely available to the public.

### **The Passage of the Sustainable Groundwater Management Act**

On September 16, 2014, three groundwater legislation bills were enacted Senate Bill (SB) and Assembly Bill (AB) (SB 1168, AB 1739, and SB 1319) referred to collectively as the Sustainable Groundwater Management Act (SGMA). SGMA is landmark legislation that is having momentous impacts to water management in California including both surface water and groundwater.

Currently, there are 515 groundwater basins identified in California, which encompass almost 40 million acres, or more than 40 percent of the California's total land area. Approximately 82 percent of the state's population, and 97 percent of the State's agricultural lands, are in these groundwater basins. The 94 high- and medium- priority basins managed under SGMA and adjudicated areas account for 98 percent of the groundwater pumping (20 million acre-feet), 83 percent of the population (25 million Californians), and 88 percent of all irrigated acres (6.7 million acres) within the state's 515 groundwater basins. Of the 94 high- and medium-priority basins, 20 basins are classified as basins subject to critical conditions of overdraft. One adjudicated basin is also identified as a basin subject to critical conditions of overdraft. The 21 basins that are subject to critical conditions of overdraft cover almost one-fifth of the total groundwater basins area in the state and account for close to two-thirds of total groundwater pumping in the state in a typical year.

For the first time, water accounting will be necessary to ensure local agencies manage their water resources, including both groundwater and surface water in a balanced condition, thus reducing the adverse impacts (e.g., subsidence, dry wells, and degraded water quality) that are being observed today (and will worsen in the future with no action) through overuse and mismanagement of this precious resource. SGMA assigned DWR with dual roles: (1) regulatory role – establish the regulations for how a Groundwater Sustainability Plan (GSP) must be prepared and assess the GSPs likelihood of achieving sustainability, and (2) assistance role – assist the locals to prepare and implement their GSPs through technical, planning, and financial support.

### **Sustainable Groundwater Management Program**

DWR's Sustainable Groundwater Management Program (SGMP) was established in 2015 to fulfill these dual roles. The SGMP also assumed oversight of the CASGEM Program (referenced above). On January 1, 2018, DWR created the Sustainable Groundwater Management Office (SGMO) to implement the SGMP.

There are four implementation phases of the SGMP as defined below:

- Phase 1 – Realignment of Basins and Establishment of Basin Governance - (2015 to 2017)
- Phase 2 – Development and Adoption of GSPs - (2018 to 2020-2022)
- Phase 3 - Implementation of GSPs through Outcome-Based Metrics - (2020-2022 through 2040-2042)
- Phase 4 – Achieving and Maintaining Sustainable Groundwater Management - (2040-2042 and beyond)

DWR has successfully completed all statutory requirements associated with the first phase of the SGMP as greater than 99% of the required basins have established local agency governance based on realigned boundaries (i.e. GSA formation). In addition, DWR developed two sets of program regulations, six best management practices (BMPs), and other guidance documents to assist GSAs prepare GSPs.

Through SGMA, DWR has been directed by the legislature to evaluate and develop assessments as to whether local agency developed GSPs are likely to achieve sustainability. Specifically, during this second phase and subsequent phases, the SGMP will be required to evaluate and prepare assessments for each of more than 100 GSPs that were provided to DWR starting in FY 2019-20 and increase over the next five years. The legislative deadline for local agencies to provide GSPs to DWR was January 31, 2020 for critically overdrafted basins, and January 31, 2022, for all other high and medium priority basins throughout California. DWR is required to evaluate and prepare these assessments within 2 years of receipt (CWC 10733.4 (d)), evaluate annual reports (CCR Title 23, Div. 2, Ch. 1.5, Sub Ch, 2 Art. 7, Section 356.4), and alternatives to GSPs (CWC 10733.6), oversee collection and management of adjudicated area reporting information, and review and evaluate and five-year GSP updates (CWC 10733.8) throughout the 20-year implementation period identified in phase 3. SGMA also directed DWR to provide technical and planning assistance to the local agencies to support development and implementation of GSPs.

In January 2022, DWR released the first determinations via written assessments for 20 basins, representing 42 GSPs since some basins have multiple GSPs that are coordinated in a given basin. Of the 20 determinations, 8 basins were approved by DWR and provided recommendations for the GSAs to work towards in implementing their plans. The remaining 12 basins, all critically overdrafted basins, are primarily located in the San Joaquin Valley and represent 34 GSPs. These 12 basins were determined Incomplete, where the GSAs must address the plan deficiencies within 180 days of receiving the incomplete determination. All 12 San Joaquin Valley basins resubmitted their GSPs to DWR by the required deadline at the end of July 2022. DWR will continue to evaluate these basins to identify if the GSAs addressed the deficiencies to substantially comply with the law and regulations. If a GSP in a basin is deemed inadequate (where DWR cannot approve a GSP based on technical evaluation), the State Water Resources Control Board can step in using a process called State intervention described in detail under SGMA. DWR is also reviewing 75 additional GSPs from high and medium priority basins, as well as voluntarily submitted from several low and very low priority basins. Additionally, DWR is evaluating 9 Alternatives to GSPs, and therefore has over 120 GSPs or Alternatives under review currently. The GSP compliance deficiencies identified the need for new regulatory and assistance efforts in order for local agencies to achieve groundwater sustainability. Specific emerging needs include the need for greater groundwater management data and understanding of groundwater conditions, specific model functions to interpret changes in climate, more ways to anticipate and shift reliance between surface and groundwater, including accounting and trading platforms.

### **SGMP Resource History:**

Here is a brief summary and the status of the prior SGMA-related and CASGEM/WCR BCPs:

1. California Statewide Groundwater Elevation Monitoring Program and Online Well Completion Report Submission System BCP

Requested \$2.5M in General Funds in FY 14/15, \$2.2M in FYs 15/16, 16/17, and 17/18, and \$2.7M in FY 18/19 to fund 10 existing positions in FY 14/15 and 11 existing positions in FY 15/16 – FY 18/19 to continue implementation of the CASGEM Program. Also, requested \$412k per FYs 14/15 – 18/19 to fund one existing position to create Online Well Completion Report (WCR) Submission System for the submission of water well completion reports, key entry of back data, and the integration of existing digital records into the new system.

Status: Expired after FY 2018-19.

2. California Statewide Sustainable Groundwater Management Program

Requested \$2.5M in General Funds in FY 14/15 to fund five new and five existing positions in FY

14/15 and \$5M per FYs 15/16 – 18/19 to fund four new and six existing positions to initiate development and implementation of the Sustainable Groundwater Management Program.  
Status: Expired after FY 2018-19.

3. Sustainable Groundwater Management Act – New and Existing Legal Requirements  
Requested \$6M in General Funds in FY 15/16 and \$8M per FYs 16/17 – 19/20 to fund five new and 26 existing positions for DWR to complete objectives and actions to 1) implement the Sustainable Groundwater Management legislations and 2) develop and implement strategic actions to achieve sustainable groundwater management to support Action #6, Expand Water Storage Capacity and Improve Groundwater Management in the Governor's California Water Action Plan.  
Status: Expired after FY 2019-20.

4. Long-Term Sustainable Groundwater Management Act Implementation  
Requested \$15M in baseline general funding beginning FY 17/18 to continue and significantly expand services currently paid for with general funds to assist in implementing the SGMA and supporting local agencies to achieve regional sustainability. Consistent with SGMA, the work supports the phased approach identified in the SGMP as resource needs ramp up and taper off as the regions build capacity over the next 20 years, with the exception of services (such as collection/analysis/sharing of statewide data and Bulletin 118 updates) that DWR will provide in perpetuity.  
Status: Ongoing. No expiration date.

5. Drought and Groundwater Investments (SB 5)  
This requested one-time funding for six new positions and \$61.8M from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Fund (SB 5), Chapter 11.6, Section 80146 for drought and groundwater investments to achieve regional sustainability. From this request, only three of the new positions and \$14.5M were provided to SGMO. The remaining positions and funds were given to DWR's Financial Assistance Branch to administer the Sustainable Groundwater Management Planning Grant Program (including local assistance dollars) and to initiate development of the Sustainable Groundwater Management Implementation Grant Program.  
Status: Expired after FY 2018-19.

6. Continuation of California Statewide Groundwater Elevation Monitoring  
Requested \$2.2M in General Funds in FY 19/20 and \$2M annually thereafter to fund 6.1 existing positions to continue the implementation of the CASGEM Program and maintain and enhance the CASGEM operating system (OS) and the Online System for Well Completion Reports (OSWCR).  
Status: Ongoing. No expiration date.

7. Proposition 68 Implementation  
Requested \$18.4M in Proposition 68 (California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Fund, Chapter 11.6, Section 80146(a)) funds in FY 19/20, \$14.7M in FY 20/21, \$14.85M in FY 21/22, \$14.9M in FY 22/23, and \$2.3M in FY 23/24 to fund nine new and 19 existing positions for continued implementation of drought and groundwater investments to achieve regional sustainability.  
Status: Expires after FY 2023-24.

8. Sustainable Groundwater Management Act (SGMA) Implementation  
Requested \$9.6M in FY 20/21, \$11.2M in FY 21/22, and \$16.3M in FY 22/23 and ongoing, but was ultimately approved at \$9.6M ongoing in General Funds to fund 37 new positions to enable

the Department to fulfill both roles assigned to it by the Sustainable Groundwater Management Act (SGMA): (1) regulatory role – establish the regulations for how a Groundwater Sustainability Plan (GSP) must be prepared and assess the GSPs likelihood of achieving sustainability, and (2) assistance role – assist the locals prepare and implement a GSP that will bring groundwater levels back into balance through technical and planning support.

Status: Ongoing. No expiration date.

### 9. Water Resilience and Drought Package

Received four appropriations to provide temporary drought support by enhanced monitoring of potential impacts to water infrastructure and shallow domestic wells, developing statewide tools for water accounting, and improving subsurface characterization to facilitate improved groundwater recharge. The appropriations are as follows: (1) \$10M to increase the collection frequency of subsidence data from annually to quarterly; (2) \$6M to enhance groundwater data collection; (3) \$8M to develop a statewide water accounting platform and provide access to OpenET data that supports the use of the platform; and (4) \$3M to refine AEM data collection. All are General Funds and a three year appropriation beginning in FY 21-22.

Status: Expires after FY 23-24. Also received \$300M (split over three FYs: \$180M in GY 21-22, \$60M in FY 22-23, and \$60M in FY 23-24) in FY 21-22 and \$56M in FY 22-23 in General Funds to award local assistance grants to those entities implementing SGMA.

### Resource History (Dollars in thousands)

<b>Program Budget</b>	<b>PY – 4 17/18</b>	<b>PY – 3 18/19</b>	<b>PY – 2 19/20</b>	<b>PY-1 20/21</b>	<b>PY 21/22</b>	<b>CY 22/23</b>
Authorized Expenditures	\$32,482	\$48,798	\$47,285	\$41,439	\$74,043	\$47,096
Actual Expenditures	\$32,215	\$45,532	\$29,217	\$32,235	\$48,216	TBD
Revenues	N/A	N/A	N/A	N/A	N/A	N/A
Authorized Positions	21	25	35	70	70	69
Filled Positions	20	18	23	31	39	52
Vacancies	1	7	12	39	31	17

The following is an explanation of why the above vacancy numbers are elevated in FY 20/21 and after. These vacancy numbers were as of the first of the FY, meaning all 37 positions appropriated to SGMO in FY 20/21 are shown as vacant. Vacancy rates remain elevated at the beginning of FY 21/22 as a result of some hiring challenges associated with the first year of the COVID-19 pandemic.

### Workload History

A workload history table is available upon request.

### C. State Level Consideration

As DWR's SGMP continues to progress since its establishment in 2015 after the passage of the SGMA, DWR has identified several critical program enhancements that are necessary to support the state's evolving groundwater challenges.

The SGMP was specifically identified in Governor Newsom's Water Resilience Initiative (Executive Order N-10-19, April 29, 2019) and recognized the importance of sustainable groundwater management in Chapter 3 of the Water Resilience Portfolio document, "*Helping regions secure groundwater supplies by supporting the transition to sustainable use*" (finalized in July 2020). Action 3.1 called for the continued implementation of the SGMA and recognized DWR's role to lead a program that can be built upon to meet the state's evolving water challenges. Long-term groundwater management and expediting recharge projects is also a key component identified in the California Water Supply Strategy: Adapting to a Hotter, Drier Future. This aligns with the State promoting groundwater data, information and tools to inform and align with local GSAs carrying out groundwater projects and actions identified in the local GSPs to meet basin sustainability goals.

Thirty million Californians rely on groundwater for a portion of their drinking water. Many water users in the Central Valley are turning to groundwater as surface supplies become less reliable. From 2002 to 2016, 17.6 million acre-feet of groundwater were used on average to meet urban, agricultural, and managed wetland demands (or about 41 percent of their total demands). As a result, land subsidence rates of up to 1 foot per year have returned to some San Joaquin Valley localities heavily reliant on groundwater supplies.

With the passage of SGMA and the need to bring groundwater levels into balance, DWR's most current Strategic Plan (2021) recognizes the importance of sustainable groundwater management. Groundwater management is further expanded upon in Goal 15: To support local progress in achieving and maintaining sustainability of California's groundwater basins. This goal will be accomplished through meeting four objectives:

1. Effectively perform SGMA regulatory oversight
2. Provide technical assistance for all groundwater basins to strengthen statewide groundwater management.
3. Foster outreach and engagement assistance related to groundwater management and governance.
4. Coordinate with other state agencies in pursuit of policy and programmatic alignment to improve comprehensive management of surface and groundwater.

This proposal requests new resources for statewide groundwater assistance to support groundwater sustainability agencies as they move forward adapting to the increasing severity and frequency of drought conditions, and halting groundwater overdraft within the 20-year timeline set forth in SGMA. DWR recognizes that these efforts will only be achieved if DWR can invest additional resources into greater data, monitoring and modeling to inform decision making and the management of groundwater through periods of drought. These conditions are driving the need to expand DWR's ability to better forecast groundwater supplies through enhancements to our current C2VSim Model which will be more compatible and complimentary with the recent increased investments of surface water supply forecasts. This is becoming a greater need as arid temperatures are driving lower surface water availability and groundwater supply is up to 60 percent of the state total water supply during droughts years.

This proposal also includes investment in statewide data which will enable the Department to make better informed decisions to support both of its statutorily required roles under SGMA: regulatory and assistance. In addition, DWR determines it is more efficient for the State to collect the information than have individual agencies do this in a piecemeal fashion. Examples of statewide water information covered under this proposal are application of remote sensing technology to determine statewide land subsidence, groundwater levels, and water use. As the drought conditions continue and groundwater use increases, continuing to invest and enhance land subsidence monitoring will be integral to supporting local, state, and federal agencies decision making and project implementation to reach groundwater sustainability and to halt subsidence-induced infrastructure damage.

As local agencies are adapting their local groundwater sustainability plans moving forward to these extreme changes in climate, DWR recognizes the need to commit to greater planning assistance through enhanced facilitation support and verbal translation for local groundwater sustainability agencies to engage with communities in their spoken language about the challenges the changing climate and drought conditions have on groundwater management decision-making. SGMA implementation necessitates timely, forthright, and consistent communication among all internal and external partners and stakeholders. The SGMP continues to promote consistent internal and external messaging on sustainable groundwater management, local control under SGMA, which includes promoting proactive outreach to and engagement of beneficial users during GSP development through enhanced facilitation support and verbal translation services. Given some communities rely on groundwater to meet all of their household and drinking water needs, facilitation and verbal translation support will be necessary to help communities engage in how their water is managed, if they are experiencing drought impacts on their groundwater wells in the near-term and the overall endeavor to meet long-term basin sustainability goals to improve groundwater management.

At the request of the Secretaries for CNRA, CalEPA, and Food and Agriculture, the California Water Commission held public workshops and hosted expert panels to inform the preparation of a white paper on groundwater trading considerations that can protect natural resources, small- and medium-size farms, and underrepresented communities. In the white paper, DWR is tasked with leading an interagency team to further the recommended actions to safeguard vulnerable users in the formation of local groundwater trading programs. Where less water is likely to be available in the future due to the hotter, drier climate we are currently experiencing, alternative solutions will be necessary and DWR is seeking additional resources to develop an implementation plan for providing state support for local groundwater accounting and trading pathways to be expanded upon and the actions identified in the California Water Commission's white paper published in May 2022 titled, "A State Role in Supporting Groundwater Trading with Safeguards for Vulnerable Users: Findings and Next Steps" can be fulfilled.

#### **D. Justification**

As noted above, SGMA tasked DWR with the dual roles of regulating sustainable management of groundwater and providing ongoing assistance to the local agencies managing groundwater in high and medium priority basins. These local agencies were required to form GSAs and develop and implement GSPs or an Alternative. DWR's regulatory responsibilities include prioritizing basins, developing and implementing regulations and evaluating basin sustainability over a 20-year horizon. The SGMP has met all of its regulatory responsibilities to date. DWR's assistance role is comprised of providing facilitation support, direct technical support, data, information, tools, and funding. DWR has also dedicated a regional office staff member to each high and medium priority basin in the state to share pertinent information during GSA meetings and to be available for questions at any time. This assistance is meant to assist GSAs prepare and update their GSPs by initial statutory deadlines of January 31, 2020 for GSAs located in critically overdrafted (COD) basins and January 31, 2022 for GSAs in non-COD high or medium priority basins and the subsequent plan updates that occur every five years over the 20-year horizon for the agencies to achieve their local basin sustainability goals.

The level of assistance needed by the GSAs and their interested parties has exceeded expectations. DWR initially estimated approximately 200 GSAs would form, instead there are nearly 270. In addition, the level of assistance requested by the GSAs has continually increased over the last several years as drought conditions have driven many communities to increase their reliance of groundwater, therefore making it challenging to reduce reliance on this valuable resource. The SGMP began in January 2015. The first few years of this program were heavily focused on the regulatory requirements as there were aggressive legislative deadlines to meet. The primary assistance functions were outreach efforts associated with the development of the two regulations DWR prepared. DWR held numerous meetings with each of the 13 advisory committees designed to guide regulation preparation. DWR also began its Facilitation Support Services Program in 2015 to assist local agencies form GSAs. Through this engagement with the local agencies, it was clear there was a demand for DWR to initiate a number of technical assistance projects to assist with data gaps. Therefore, starting in FY 17-18, the SGMP received an appropriation which allowed DWR to expand its assistance efforts to include new technical assistance projects with an emphasis on data collection and dissemination. This approach allows DWR to better evaluate performance of GSP implementation over time, allowing the department to continue to meet the statutory obligations associated with both its regulatory and assistance roles identified in the legislation. Plus, there is an economy of scale to have the State obtain and circulate data, rather than have each of the 270 GSAs pay for the same data. . In FY 18-19, DWR was able to further expand its technical assistance offerings with temporary Proposition 68 funding. That temporary funding will be expiring after FY 23/24 and there has been an increase in requested assistance.

Even as the number of assistance projects and programs expanded, DWR anticipated being able to ramp down as more GSAs submitted their GSPs for DWR evaluation. It was assumed a GSA would need less support after completion of its GSP. However, after submitting the GSPs to DWR for review, the COD basins found that their technical and planning assistance needs did not subside. They recognized they have data gaps that will need to be filled between now and the submittal of their five-year update in 2025 and into their 10-year update in 2030, and potentially beyond. Further, DWR provided assessments on the first GSPs submitted and found that 34 of the 42 GSPs needed to further correct deficiencies that precluded DWR's approval of their plan and therefore required the GSAs to spend six months addressing these major deficiencies for how they plan to manage and monitor critical conditions such as the continued decline of groundwater levels and increases in land subsidence in some areas of the state.

This proposal builds on resources, some of which are set to expire in 2023-24. DWR is advancing this proposal with a sense of urgency – to ensure that DWR can continue to support the local agencies demand for this assistance to continue despite the expiration of our current resources. As noted above, it is estimated DWR now has over 100 GSPs to continue evaluating, which will dramatically increase its workload and associated costs. However the demand for enhanced technical and planning assistance costs will also be increasing due to the intensifying climate conditions we are experiencing and the need for greater support for local agencies as they continue with implementing and updating their GSPs through worsening temperatures that are drastically impacting our water supplies. Without the requested funding, DWR will be forced to reduce its level of assistance to support GSAs as they move forward with SGMA implementation.

The proposal will allow DWR to continue fulfilling its regulatory obligation under SGMA, while enhancing the level of assistance the local agencies require to refine and implement their GSPs in the face of such extreme climate changes. This request includes resources that are required to maintain consistency throughout the program and to ensure the regulatory and assistance functions of the Department can be maintained. SGMO has relied on staff from

other Offices/Divisions to implement the SGMP since its inception. SGMO will continue to utilize staff in other Offices/Divisions, particularly the four Regional Offices to support our continued assistance and direct connection with the local GSAs. This includes the proposed technical assistance in this request to advance the data collection and monitoring efforts.

If the proposal is not approved, it will drastically reduce DWR's ability to provide the best available data through technical assistance to the GSAs, a requirement of the local agencies specifically identified in SGMA. While DWR could simply focus on its regulatory role to complete the GSP evaluations by the deadlines, GSAs would lack the necessary data, information, tools, and resources to significantly advance sustainable groundwater management, let alone in the timeframe that meets the intent of the law. These data and tools are resources that GSAs have heavily relied upon for their planning and implementation needs of SGMA. These were developed using the temporary Prop. 68 funds but will go away without additional funding support. Without technical assistance, greater facilitation support, and tools like groundwater accounting and trading, many basins will not be able to carry out their plans to reach sustainability. In many cases, the basins that are most financially vulnerable are the ones who have experienced the greatest groundwater level declines and are hit hardest by these intensifying climate conditions. The result would impact groundwater users, groundwater dependent ecosystems and critical infrastructure. The availability of clean, reliable drinking water especially in underrepresented communities would be jeopardized. Increased land subsidence would impact critical infrastructure such as state and federal water conveyance, flood levees, and transportation infrastructure.

The failure by local agencies to meet the requirements of SGMA will result in State action by the State Water Resources Control Board to achieve sustainability within those basins. One area of concern that is not entirely in control of local agencies is where a lack of detailed information on basin scale water use, water supplies, and groundwater conditions exists. This budget proposal includes a long-term investment in statewide data where experience has shown it is more efficient for the State to collect and share the information through a statewide repository, than have individual agencies do this in a piecemeal fashion. Examples of statewide water information covered under this proposal are application of remote sensing technology to determine statewide land subsidence, groundwater levels, and water use. Remote sensing technologies provide economies of scale that make it far less expensive for the State to collect than by individual agencies. Statewide data also includes maintenance and collection of information from existing surface water and groundwater monitoring locations which DWR can use to independently evaluate groundwater sustainability plans to verify and confirm progress towards sustainability is occurring locally. Funding for these statewide monitoring systems has been stagnant for many years and as a result these data are becoming less reliable now more than ever due to the capture, move, and store water in different ways than has been done before, including groundwater trading efforts that are a necessary and emerging solutions local agencies can use. In an effort to capture changes in precipitation due to aridification, storing available water underground is necessary. The total storage capacity of California's 515 groundwater basins has been estimated to be between 850 million acre-feet (maf) and 1,300 maf. The state's usable groundwater storage is approximately 8 to 12 times larger than the combined storage capacity (50 million acre-feet) of all major reservoirs in California. This additional storage creates an opportunity for many local recharge projects to serve multiple benefits through groundwater trading or recharge to occur in shallow groundwater aquifers to support small water systems or underrepresented communities that rely on groundwater for drinking water needs.

## **E. Outcomes and Accountability**

The table below summarizes the Projected Outcomes of the proposal sorted by three DWR Strategic Plan Objectives intended to meet the overarching goal of support local progress in

achieving and maintaining sustainability of California's groundwater basins. Each of the projects in the table below has a dedicated DWR project manager who is responsible for monitoring project costs and deliverables. DWR's Strategic Plan has a companion Tracking Report which requires the programs responsible for meeting the objectives to report progress to be distributed to the Deputy Directors and Division Chiefs. In addition to these controls, monthly expenditure reports are generated for the program managers to track program costs. Once implemented, the baseline data gathered will allow the local GSAs and DWR to monitor groundwater conditions for underrepresented communities that are most vulnerable to changes in climate. Annual tracking is required through SGMA, where local GSAs submit reports to DWR. DWR reviews those reports to verify that basins are making progress in meeting their sustainability goals, through locally determined metrics.

### **Projected Outcomes**

See table on next page for projected outcomes.

<b>Workload Measure</b>	<b>CY 22/23</b>	<b>BY 23/24</b>	<b>BY+1 24/25</b>	<b>BY+2 25/26</b>	<b>BY+3 26/27</b>	<b>BY+4 27/28</b>
(1) Provide technical assistance for all groundwater basins to strengthen statewide groundwater management						
<b>Groundwater (Levels, Quality, Well Infrastructure) Data Management and Collection to support SGMA implementation, Drought Planning and Response (Dry Wells)</b>	Develop framework for baseline Data Management and initiate Collection	Maintain and Enhance Data management systems and collection	Maintain and Enhance Data management systems and collection	Maintain and Enhance Data management systems and collection	Maintain and Enhance Data management systems and collection	Maintain and Enhance Data management systems and collection
<b>Develop Framework for SGMA Data Management</b>	Develop framework for SGMA Data Management	Maintain and Enhance Data management systems				
<b>Collect Groundwater Elevation and Quality Data</b>	Continue Technical Support Services (TSS) Program	Continue implementing TSS Program	Continue implementing TSS Program	Continue implementing TSS Program	Continue implementing TSS Program	Continue implementing TSS Program
<b>Enhance Land Subsidence Data</b>	Initiate additional INSAR data gathering	Gather and disseminate enhanced INSAR data				
<b>Geophysical Surveys &amp; Basin Characterization to enhance Groundwater Recharge and Brackish Groundwater Identification and Utilization</b>	Initiate Basin Characterization methodology and framework	Initiate enhanced geophysical surveys	Conduct enhanced geophysical surveys	Conduct enhanced geophysical surveys	Conduct enhanced geophysical surveys	Conduct enhanced geophysical surveys

<b>C2VSIM/IWFM Modeling Support Enhancements</b>	Initiate C2VSim Fine Grid model calibration	Will complete C2VSim model calibration	Will update C2VSim model to add components			
(2) Foster outreach and engagement assistance related to groundwater management and governance						
<b>Enhanced Facilitation Support Services &amp; Verbal Translation Services</b>	Implement Enhanced FSS and initiate verbal translation pilot	Implement Enhanced FSS and develop statewide framework for verbal translation services	Will continue implementing Enhanced FSS and verbal translation services	Will continue implementing Enhanced FSS and verbal translation services	Will continue implementing Enhanced FSS and verbal translation services	Will continue implementing Enhanced FSS and verbal translation services
(3) Coordinate with other state agencies in pursuit of policy and programmatic alignment to improve comprehensive management of surface and groundwater						
<b>Groundwater Accounting &amp; Trading Actions</b>	Initiate and develop scope for groundwater trading action					

**F. Analysis of All Feasible Alternatives**

Alternative 1: Appropriate \$14M in FY 23/24 and thereafter (baseline) in General Fund GF to fund 11 new positions (permanent) and 29 existing positions. Also appropriate \$900,000 in one time funding in FY 23-24 to support two existing positions.

Pros:

- The proposal will allow DWR to fulfill its regulatory obligation under SGMA and allow it to maintain the level of assistance the local agencies require to refine and implement their GSPs to help bring groundwater levels back into balance and manage through a changing climate and extreme arid and drought conditions.

Cons:

- Increased obligation to General Fund.

Alternative 2: Provide DWR with the authority to implement SGMA with funding from fees assessed from groundwater sustainability agencies.

Pros:

- Potential for less direct cost to the State for implementation of DWR's responsibility under SGMA.

Cons:

- Local agencies are already faced with significant costs associated with the formation of GSAs, groundwater sustainability plan development, monitoring groundwater conditions, and implementation of management actions. Requiring payment of fees on top of these costs may not be feasible in many basins.

- Reduced technical support provided by DWR to GSAs needed for successful implementation of SGMA and reduced data continuity (including groundwater use, levels and aquifer conditions). Loss of data collection opportunities could occur.
- Delay to DWR's implementation of critical activities necessary to meet legislatively-mandated timelines for advancing sustainable groundwater management in California.

Alternative 3: Deny the Requested Funding.

Pros:

- No increased obligation to General Fund.

Cons:

- The State's opportunity to provide timely incentive-based financial support for the development, enhancement, and implementation of GSPs and groundwater projects will be missed. If the proposal is not approved, it will drastically reduce DWR's ability to provide technical assistance to the GSAs, as it will have to focus its limited resources on meeting the GSP evaluation deadlines. Without technical assistance, many basins will not be able to develop a GSP to reach sustainability due to a lack of: funding, technical support, and datasets. In many cases, the basins that are most financially vulnerable are the ones who have experienced the greatest groundwater level declines.

## **G. Implementation Plan**

DWR has developed a Strategic Implementation Plan for the SGMP. To help attract the most qualified candidates, DWR has established a framework called the Recruiter's Roundtable. The purpose of the Roundtable is to identify and implement as many recruiting strategies as possible. SGMO will implement the strategies generated by the Roundtable to recruit the 11 positions requested in this proposal.

To ensure new employees are properly trained to evaluate GSPs and provide assistance to GSAs, SGMO has established a series of training classes through DWR's Training Office that are focused on SGMA, groundwater management, and groundwater modeling.

SGMO is unlikely to need to obtain a new facility. Its current building and telework policies can accommodate both its current vacancies and requested position.

## **H. Supplemental Information**

N/A

## **I. Recommendation**

DWR recommends Alternative 1, which would appropriate \$14M in FY 23/24 and thereafter (baseline) in General Fund GF to fund 11 new positions (permanent) and 29 existing positions to enable the Department to fully enhance its assistance role under SGMA and dually supporting drought preparedness and response, all while maintaining its regulatory role to assess the GSPs likelihood of achieving groundwater sustainability and bring groundwater levels back into balance through technical and planning support. This Alternative would also appropriate \$900,000 in one time funding in FY 23-24 to support two existing positions that will develop an implementation plan for addressing actions identified in the California Water Commission's white paper published in May 2022 titled, "A State Role in Supporting Groundwater Trading with Safeguards for Vulnerable Users: Findings and Next Steps".

# BCP Fiscal Detail Sheet

BCP Title: Sustainable Groundwater Management Act - Program Delivery

BR Name: 3860-019-BCP-2023-GB

Budget Request Summary

## Personal Services

Personal Services	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
Positions - Permanent	0.0	11.0	11.0	11.0	11.0	11.0
<b>Total Positions</b>	<b>0.0</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>	<b>11.0</b>
Earnings - Permanent	0	1,636	1,336	1,336	1,336	1,336
<b>Total Salaries and Wages</b>	<b>\$0</b>	<b>\$1,636</b>	<b>\$1,336</b>	<b>\$1,336</b>	<b>\$1,336</b>	<b>\$1,336</b>
Total Staff Benefits	0	791	641	641	641	641
<b>Total Personal Services</b>	<b>\$0</b>	<b>\$2,427</b>	<b>\$1,977</b>	<b>\$1,977</b>	<b>\$1,977</b>	<b>\$1,977</b>

## Operating Expenses and Equipment

Operating Expenses and Equipment	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
5301 - General Expense	0	451	351	351	351	351
5340 - Consulting and Professional Services - External	0	5,490	5,150	5,150	5,150	5,150
5368 - Non-Capital Asset Purchases - Equipment	0	10	0	0	0	0
54XX - Special Items of Expense	0	6,522	6,522	6,522	6,522	6,522
<b>Total Operating Expenses and Equipment</b>	<b>\$0</b>	<b>\$12,473</b>	<b>\$12,023</b>	<b>\$12,023</b>	<b>\$12,023</b>	<b>\$12,023</b>

## Total Budget Request

Total Budget Request	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
<b>Total Budget Request</b>	<b>\$0</b>	<b>\$14,900</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>

## Fund Summary

### Fund Source

Fund Source	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
State Operations - 0001 - General Fund	0	14,900	14,000	14,000	14,000	14,000
<b>Total State Operations Expenditures</b>	<b>\$0</b>	<b>\$14,900</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>
<b>Total All Funds</b>	<b>\$0</b>	<b>\$14,900</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>

# Program Summary

## Program Funding

Program Funding	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
3230 - Continuing Formulation of the California Water Plan	0	14,900	14,000	14,000	14,000	14,000
<b>Total All Programs</b>	<b>\$0</b>	<b>\$14,900</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>	<b>\$14,000</b>

## Personal Services Details

### Positions

Positions	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
0762 - Environmental Scientist (Eff. 07-01-2023)(LT 12-31-9999)	0.0	0.0	0.0	0.0	0.0	0.0
0765 - Sr Envirnal Scientist (Spec) (Eff. 07-01-2023)(LT 12-31-9999)	0.0	0.0	0.0	0.0	0.0	0.0
0783 - Program Mgr I (Eff. 07-01-2023)(LT 12-31-9999)	0.0	0.0	0.0	0.0	0.0	0.0
0784 - Program Mgr II (Eff. 07-01-2023)(LT 12-31-9999)	0.0	0.0	0.0	0.0	0.0	0.0
1414 - Info Tech Spec II (Eff. 07-01-2023)(LT 12-31-9999)	0.0	1.0	1.0	1.0	1.0	1.0
3261 - Sr Engr (Eff. 07-01-2023)(LT 12-31-9999)	0.0	1.0	1.0	1.0	1.0	1.0
3751 - Sr Engring Geologist (Eff. 07-01-2023)(LT 12-31-9999)	0.0	4.0	4.0	4.0	4.0	4.0
3756 - Engring Geologist (Eff. 07-01-2023)(LT 12-31-9999)	0.0	5.0	5.0	5.0	5.0	5.0
VR00 - Various (Eff. 07-01-2023)(LT 12-31-9999)	0.0	30.0	30.0	30.0	30.0	30.0
<b>Total Positions</b>	<b>0.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>

### Salaries and Wages

Salaries and Wages	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
0762 - Environmental Scientist (Eff. 07-01-2023)(LT 12-31-9999)	0	0	0	0	0	0
0765 - Sr Envirnal Scientist (Spec) (Eff. 07-01-2023)(LT 12-31-9999)	0	0	0	0	0	0
0783 - Program Mgr I (Eff. 07-01-2023)(LT 12-31-9999)	0	0	0	0	0	0
0784 - Program Mgr II (Eff. 07-01-2023)(LT 12-31-9999)	0	0	0	0	0	0
1414 - Info Tech Spec II (Eff. 07-01-2023)(LT 12-31-9999)	0	103	103	103	103	103
3261 - Sr Engr (Eff. 07-01-2023)(LT 12-31-9999)	0	142	142	142	142	142
3751 - Sr Engring Geologist (Eff. 07-01-2023)(LT 12-31-9999)	0	528	528	528	528	528
3756 - Engring Geologist (Eff. 07-01-2023)(LT 12-31-9999)	0	563	563	563	563	563
VR00 - Various (Eff. 07-01-2023)(LT 12-31-9999)	0	0	0	0	0	0
<b>Total Salaries and Wages</b>	<b>\$0</b>	<b>\$1,336</b>	<b>\$1,336</b>	<b>\$1,336</b>	<b>\$1,336</b>	<b>\$1,336</b>

### Staff Benefits

Staff Benefits	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
5150600 - Retirement - General	0	487	387	387	387	387
5150900 - Staff Benefits - Other	0	304	254	254	254	254
<b>Total Staff Benefits</b>	<b>\$0</b>	<b>\$791</b>	<b>\$641</b>	<b>\$641</b>	<b>\$641</b>	<b>\$641</b>

### Total Personal Services

Total Personal Services	FY23 Current Year	FY23 Budget Year	FY23 BY+1	FY23 BY+2	FY23 BY+3	FY23 BY+4
<b>Total Personal Services</b>	<b>\$0</b>	<b>\$2,127</b>	<b>\$1,977</b>	<b>\$1,977</b>	<b>\$1,977</b>	<b>\$1,977</b>