

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 10/20)

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|--|------------------------------|--|---------------------|
| Fiscal Year 2021-22 | Business Unit 8570 | Department Department of Food and Agriculture | Priority No. |
| Budget Request Name 8570-039-BCP-2020-GB | | Program 6590 – General Agricultural Activities | Subprogram |

Budget Request Description
 State Water Efficiency and Enhancement Program

Budget Request Summary

The California Department of Food and Agriculture (CDFA) requests \$20 million General Fund in 2020-21 and \$20 million in 2021-22 to award, administer, and monitor State Water Efficiency and Enhancement Program (SWEET) grants with a focus on depleted groundwater basins.

| | | |
|---|---|-------------|
| Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Code Section(s) to be Added/Amended/Repealed | |
| Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i> | Department CIO | 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. Project Approval Document:
Approval 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.

| | | | |
|---|--------------------------|--------------------------------------|--------------------------|
| Prepared By Amrith Gunasekara | Date 12/1/2020 | Reviewed By Nathan Johnson | Date 12/1/2020 |
| Department Director | Date | Agency Secretary | Date |

Department of Finance Use Only

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

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|-------------------------------|--|
| PPBA Sergio Aguilar | Date submitted to the Legislature 1/8/2021 |
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Analysis of Problem

A. Budget Request Summary

The California Department of Food and Agriculture (CDFA) requests \$20 million General Fund in 2020-21 and \$20 million 2021-22 to award, administer, and monitor State Water Efficiency and Enhancement Program (SWEET) grants with a focus on depleted groundwater basins. Of this amount, up to five percent will be available for administration and up to five percent will be available for technical assistance as required by Chapter 868, Statutes of 2018 (AB 2377). This technical assistance will be prioritized to socially disadvantaged farmers and ranchers and to farms that are less than 500 acres. This proposal includes budget bill language to make the funding available for encumbrance or expenditure for two years.

B. Background/History

Chapter 249, Statutes of 2016 (SB 32) requires a 40 percent reduction of GHGs below 1990 levels by 2030. All state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 targets. In response to the mounting threat of climate change and in step with the state's climate goals, CDFA has developed a suite of incentive programs that address GHG emissions from the agriculture sector and provide additional benefits to the environment, economy and rural communities. The Environmental Farming Act Science Advisory Panel, established by the Canella Environmental Farming Act of 1995, guides the development of CDFA's Climate Smart Agriculture incentive programs and provides the authority for their administration at CDFA.

At the pinnacle of the recent severe drought Chapter 2, Statutes of 2014 (SB 103) was enacted, which allocated \$10 million from the GGRF to CDFA "to provide financial incentives to agricultural operations to invest in water irrigation treatment and distribution systems that will reduce greenhouse gas emissions, and will also reduce water and energy use, augment supply, and increase water and energy efficiency in agricultural applications." SWEET is an existing incentive program that helps farms to reduce irrigation water use and reduce greenhouse gas (GHG) emissions from agricultural pumping. The program also addresses other high priority environmental issues such as groundwater sustainability and water quality protection. This one-time funding will address groundwater sustainability by focusing SWEET on improving conditions in depleted groundwater basins. The program was designed to obtain quantitative water savings and GHG reductions from irrigation water pumping on farms throughout California. SWEET has become a cornerstone of the Climate Smart Agriculture initiative at the Department by striving for the multiple objectives of ensuring agricultural food and economic sustainability, food security in consideration of climate change, and climate change mitigation by reducing GHGs.

SWEET incentivizes several project types, which are often combined, to result in water savings and GHG reductions. Project components include:

- Weather, soil or plant-based sensors for irrigation scheduling to guide agricultural operators in applying water when the crop needs it.
- Micro-irrigation or drip systems to support water application to the plant root zone.
- Fuel conversion on pumps from fossil fuels to electricity and renewable energy sources.
- Improved energy efficiency for pumps.
- Lower pressure irrigation systems that reduce energy use.
- Use of variable frequency drives to reduce energy use and match pump flow to load requirements.

- Reduced pumping to save energy and reduced GHGs.

Applicants to the program are encouraged to use several project types to improve irrigation efficiency holistically.

C. State Level Consideration

CDFA utilizes the authorities granted under the 1995 Environmental Farming Act (Sections 560-568 of the Food and Agricultural Code) to implement SWEEP. According to the 1995 Environmental Farming Act, "the department shall establish and oversee an environmental farming program. The program shall provide incentives to farmers whose practices promote the well-being of ecosystems, air quality, and wildlife and their habitat."

The SWEEP program supports carbon sequestration through efficient water use. Increasing water use efficiency allows for farmland to remain productive in times of water shortage, keeping carbon protected in soil and plants. The program supports the installation of renewable energy on farms, advancing the state to meeting renewable energy goals, and helps safeguard the agricultural sector from the impacts of climate change. Technologies and management practices that result in water use efficiency on farms will help farms adapt to the changing climate and be more resilient to times of water shortage or heat waves.

In 2014 the California Legislature passed the Sustainable Groundwater Management Act (SGMA) in response to intensifying depletion and subsidence of many of California's aquifers. SGMA requires that groundwater be sustainably managed by local Groundwater Sustainability Agencies. For the last several years, local agencies have been forming around California and developing their plans for sustainable groundwater use. In 2020, basins that are considered critically over-drafted must submit their plans to bring their groundwater to sustainable use. Moving forward SWEEP can play an important role in helping the farming community to meet the goal of SGMA, through reduction of groundwater pumping and support of recharge efforts.

CDFA solicits feedback from the agricultural community in the process of developing Climate Smart Agriculture programs and works closely with other State agencies such as the California Air Resources Board (CARB) on developing and implementing its quantification methodologies, including post project GHG reduction verification.

D. Justification

This proposal requests funding to continue the SWEEP program and to target the funding to areas of critically over-drafted groundwater basins, which supports SGMA implementation. SWEEP, which was initiated in response to drought in 2014, continues to be a highly popular program with farmers throughout California as the industry strives to use water and energy efficiently and reduce environmental impacts. As California moves into a new era of regulated and monitored groundwater use, the agriculture industry needs support to implement highly efficient irrigation systems, which can cost greater than \$1,000 per acre to install.

Since 2014, CDFA has been appropriated a total of \$87.5 million to administer SWEEP grants and has funded over 800 projects impacting 135,000 acres. These projects have an estimated water savings of 1.15 million acre-feet and GHG emission reductions of 800,773 metric tons of carbon dioxide equivalent over 10 years.

The program is designed to contribute to California's climate change targets and also results in co-benefits such as improved nutrient management, water quality protection, soil health, job training, and support of groundwater sustainability. These funds will be targeted to critically

over-drafted groundwater basins to help the agricultural sector to address water quality and step up to the challenge of compliance with the Sustainable Groundwater Management Act (SGMA) while remaining an agricultural global leader.

The program includes a technical assistance component supported by the California Resource Conservation Districts (RCDs), University of California Cooperative Extension and non-profits. Technical assistance efforts are targeted to small and medium sized farms and to socially disadvantaged farmers and ranchers. Following a solicitation, grant applications are reviewed by irrigation system experts at the University of California and California State University systems. Projects are scored based on merit and feasibility and their potential to meeting water savings and GHG reduction objectives. Finally, priority populations and geographies (severely disadvantaged communities) are considered when projects are selected for awards.

No more than \$1 million (5 percent) will be used for administrative costs which include pre-solicitation planning, solicitation activities, technical review, grant administration, project verification, and outcome monitoring.

This proposal also aligns with the Administration's Water Resilience Portfolio, which advances Administration priorities to enable water security and build climate resilience for Californians.

E. Outcomes and Accountability

All grant projects will be implemented in consultation with the appropriate state agencies. CDFA has worked closely with CARB to develop quantification methodology for GHG reductions associated with all projects and works to identify other environmental benefits as well. All project components will be included in the grant agreement and will be verified by CDFA technical staff. All projects will calculate and report on associated GHG reductions, as well as any other identified added benefits specified by CDFA (water savings, benefits to disadvantaged communities). CDFA will continue to report on GHG reductions and water savings attributable to SWEEP projects, number of projects awarded, funds awarded, matching funds, acres impacted, location of projects, number of socially disadvantaged farmers and ranchers served by the program, benefits to severely disadvantaged communities and other metrics of environmental, social and economic value.

CDFA will utilize the public meetings of the Environmental Farming Act Science Advisory Panel to update the panel and public of the program timeline and results. This will also provide opportunity for ongoing stakeholder engagement and input.

CDFA's Office of Environmental Farming and Innovation will be responsible for processing the grant application packages. All project outcomes and performance reviews will be included in the grant agreement and reviewed and verified by technical scientific staff.

Projected Outcomes

| Workload Measure | CY | BY | BY + 1 |
|--|----|-----|--------|
| Number of Solicitations | 1 | 1 | 0 |
| Estimated Number of Applications Received | 0 | 375 | 375 |
| Estimated Number of Applications Processed for Administrative Review | 0 | 375 | 375 |
| Estimated Number of Applications Processed for Technical Review | 0 | 350 | 350 |
| Estimated Number of Projects Awarded | 0 | 175 | 175 |
| Estimated Number of Number of pre-project Technical Consultations | 0 | 175 | 175 |
| Estimated of Number of Scope of Works and Grant Agreements | 0 | 175 | 175 |

F. Analysis of All Feasible Alternatives

Alternative #1: Approve \$20 million General Fund in 2020-21 and \$20 million in 2021-22 and the addition of Budget Bill language for an extended encumbrance period.

Advantages: Implementation of this proposal will allow CDFA to maintain the required scientific, technical and administrative resources to continue to effectively implement the SWEEP, incentivizing water savings and greenhouse gas reductions on farms; advancing water quality and groundwater sustainability goals and support local SGMA implementation.

Disadvantages: This alternative increases the obligation to the General Fund.

Alternative #2: Do not approve the requested appropriation of \$20 million General Fund in 2020-21 and 2021-22.

Advantages: There would be no obligation to the General Fund.

Disadvantages: The state would not be able to support programs that incentivize water savings and greenhouse gas reductions on farms; advance water quality and groundwater sustainability goals and support local SGMA implementation.

Alternative #3: Pursue funding from the agricultural industry.

Advantages: SWEEP would continue to provide farmers with the financial assistance. There would be no obligation to the General Fund.

Disadvantages: The agricultural sector is being affected by multiple stressors including climate change and groundwater quality and sustainability goals. The most recent drought has already led to fallowed land and crop loss which translated into economic loss to growers. The implementation of water saving irrigation systems of farms by growers is cost prohibitive at approximately \$1,000/acre.

G. Implementation Plan

First Solicitation:

May to June 2021: Solicit Stakeholder input for SWEEP and update Quantification Methodologies for SWEEP

August 2021 to October 2022: Solicitation requesting for applications for SWEEP funding

October 2021: Grant application workshops for applicants

November 2021: Applications for funding due to CDFA

November 2021 to January 2022: Complete technical review of applications including the evaluation of water savings and GHG reductions by University irrigation system experts

February 2022: Announce awardees for FY 2020-2 SWEEP funds

February - March 2022: Establish agreements with awardees

April 2022 – October 2023: SWEEP project implementation

December 2023 – March 2024: Project verification

December 2023 – May 2024: Project close out

December 2024, December 2025, December 2026: Project outcome

Second Solicitation

July to August 2022: Solicit Stakeholder input for SWEEP and update Quantification Methodologies for SWEEP

November 2022 to January 2023: Solicitation requesting for applications for SWEEP funding

December 2022: Grant application workshops for applicants

January 2023: Applications for funding due to CDFA

January to March 2023: Complete technical review of applications including the evaluation of water savings and GHG reductions by University irrigation system experts

April 2023: Announce awardees for FY 2021-22 SWEEP funds

April - May 2023: Establish agreements with awardees

June 2023 – December 2024: SWEEP project implementation

December 2024 – March 2025: Project verification

December 2024 – May 2025: Project close out

December 2025, December 2026, December 2027: Project outcome

H. Supplemental Information

SWEEP has a third-party application portal contract to aid applicants - \$10,000

I. Recommendation

CDFA recommends approval of Alternative #1 which will provide \$20 million General Fund in 2020-21 and \$20 million in 2021-22 to allow CDFA to award, administer, and monitor SWEEP grants. This alternative includes Budget Bill language for an extended encumbrance period.

BCP Fiscal Detail Sheet

BCP Title: State Water Efficiency and Enhancement Program

BR Name: 8570-039-BCP-2021-GB

Budget Request Summary

Operating Expenses and Equipment

| Operating Expenses and Equipment | FY21 Current Year | FY21 Budget Year | FY21 BY+1 | FY21 BY+2 | FY21 BY+3 | FY21 BY+4 |
|---|-------------------------|------------------------|--------------|--------------|--------------|--------------|
| 54XX - Special Items of Expense | 0 | 20,000 | 0 | 0 | 0 | 0 |
| Total Operating Expenses and Equipment | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |

Total Budget Request

| Total Budget Request | FY21 Current Year | FY21 Budget Year | FY21 BY+1 | FY21 BY+2 | FY21 BY+3 | FY21 BY+4 |
|-----------------------------|-------------------------|------------------------|--------------|--------------|--------------|--------------|
| Total Budget Request | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |

Fund Summary

Fund Source

| Fund Source | FY21 Current Year | FY21 Budget Year | FY21 BY+1 | FY21 BY+2 | FY21 BY+3 | FY21 BY+4 |
|--|-------------------------|------------------------|--------------|--------------|--------------|--------------|
| Local Assistance - 0001 - General Fund | 0 | 20,000 | 0 | 0 | 0 | 0 |
| Total Local Assistance Expenditures | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |
| Total All Funds | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |

Program Summary

Program Funding

| Program Funding | FY21 Current Year | FY21 Budget Year | FY21 BY+1 | FY21 BY+2 | FY21 BY+3 | FY21 BY+4 |
|--|-------------------------|------------------------|--------------|--------------|--------------|--------------|
| 6590 - General Agricultural Activities | 0 | 20,000 | 0 | 0 | 0 | 0 |
| Total All Programs | \$0 | \$20,000 | \$0 | \$0 | \$0 | \$0 |