

# California's State Water Efficiency and Enhancement Program (SWEET): Round 4 Update

California's State Water Efficiency and Enhancement Program (SWEET), funded by cap-and-trade auction proceeds, equips agricultural producers to reduce their carbon footprint, save water and energy resources, and increase their resilience to a changing climate.

California Climate and Agriculture Network (CalCAN) reviewed SWEET to better understand how this two-year old climate change program, administered by the California Department of Food and Agriculture (CDFA), is working for farmers and the environment. Please find complete findings and recommendations in our May 2016 Report.<sup>1</sup> This update expands on our findings and recommendations using data from the recently completed Round 4 grant cycle.<sup>2</sup>

In a fairly short period of time, the program has evolved to further its efficacy and incorporate stakeholder feedback. Program guidelines for this fourth round actively encouraged new applicants, gave additional consideration to water-saving soil management practices, and acknowledged the importance of technical assistance and training to project outcomes.

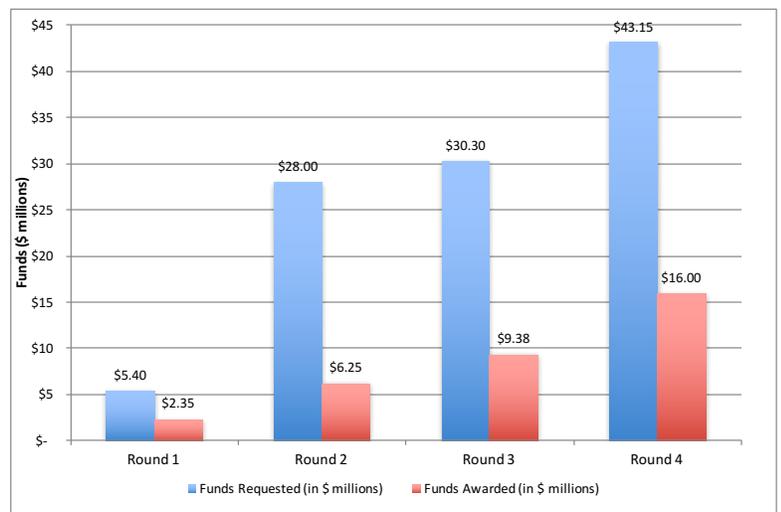
In Round 4, CDFA awarded 128 projects for a total of \$16 million in funding. These projects will save an estimated 22,267 acre-feet of water per year (approximately 7.3 billion gallons/year) and an estimated 5,635 tonnes CO<sub>2</sub>e per year (the equivalent of taking 1,190 passenger vehicles off the road each year). Across all rounds, SWEET's 361 funded projects will save an estimated 59,757 acre-feet of water per year (approximately 19.5 billion gallons/year) and 16,913 tonnes CO<sub>2</sub>e per year (or taking 3,564 passenger vehicles off the road each year).<sup>3</sup>

## Program Basics

As was the case with previous SWEET solicitations, the fourth funding round was highly oversubscribed. Applicants to the fourth round asked for \$43.15 million dollars to implement their projects – the highest amount requested to-date (Figure 1).

Although Round 4 had the largest budget of the four SWEET rounds, the number of grants awarded per \$1 million of SWEET funds was the lowest of any round (Figure 2). This downward trend may be in part attributable to Round 4's maximum award size of \$200,000, which CDFA increased from the previous two rounds' limit of \$150,000.

Figure 1- Funds requested vs. awarded, Rounds 1-4

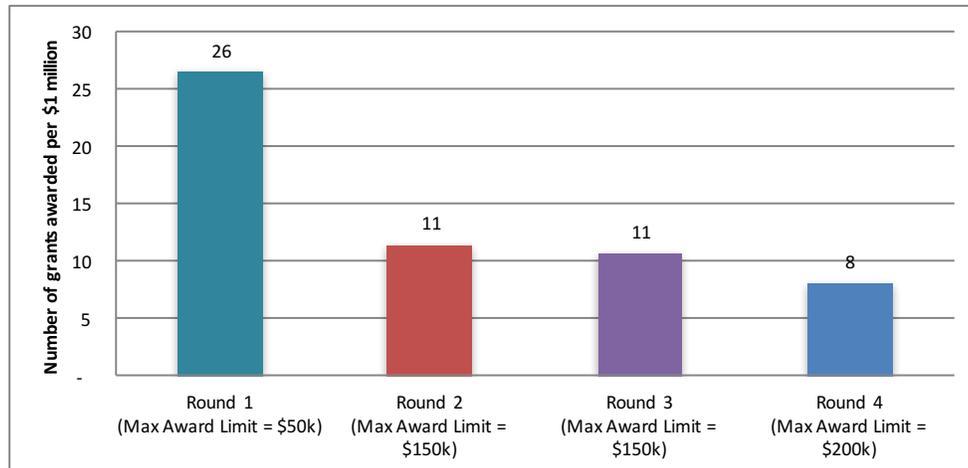


<sup>1</sup> CalCAN SWEET Report available here: <http://calclimateag.org/sweep-progress-report/>

<sup>2</sup> CDFA is currently reviewing applications from the fifth SWEET solicitation, which closed August 5, 2016.

<sup>3</sup> Calculation excludes two outlier values of 21,320 and 22,098 Tonnes CO<sub>2</sub>e/year.

Figure 2 - Number of projects awarded per \$1 million, Rounds 1-4



## Project Activities

Round 4 awardees will implement similar activities to those in previous rounds: installing irrigation monitoring equipment remains the most popular SWEEP activity, followed by pump improvements and conversion to efficient irrigation systems.

Round 4 is the first time SWEEP has given “additional consideration” to applicants that meet certain criteria. A majority of awardees sought additional consideration in each of the categories (Table 1). But how these “additional considerations” are weighted in application scoring is not clear.

While “additional considerations” add value to the program, more can be done to bridge the compatible goals of the CDFA’s Healthy Soils Program and SWEEP.

Table 1 - Percentages of projects participating in SWEEP’s “additional considerations”

Round 4 Additional Considerations	Percentage of Projects Participating
Soil management practices	53%
<i>Cover Crop</i>	26%
<i>Compost</i>	31%
<i>Mulch</i>	34%
<i>Crop Rotation</i>	9%
New SWEEP Recipient	77%
Project in over-drafted water basin	63%
Irrigation Training	81%

## Geographical Reach

To-date SWEEP has reached over half of the counties in California (30 out of 58), although a few counties have consistently received the greatest share of awards (Table 2). While Round 4 projects reached 21 counties around the state, many areas in drought-ridden Southern California are still largely missing out. Many farmers and ranchers in southern California have their water delivered to them. Because all pumping occurs off-farm, it is assumed these producers cannot demonstrate GHG emission reductions because they cannot directly account for their water-related energy use.<sup>4</sup> Consequently, these projects are ineligible for funds under the current SWEEP application process. For example, representatives of Rancho California Water District in Temecula have noted to CalCAN that all but a few growers in their district do

<sup>4</sup> CDFA confirms this in “2016 SWEEP Round II FAQs” p. 1: <https://www.cdca.ca.gov/oefi/sweep/docs/2016SWEEP-Rnd2FAQ.pdf>

not qualify for SWEEP. This may help explain the low SWEEP participation from most Southern California counties (Table 3). We urge CDFA to look into this issue and possibly reevaluate eligibility criteria to facilitate more equitable participation from this key agricultural region.<sup>5</sup>

**Table 2 - Top 6 counties by total projects awarded, Rounds 1-4**

County	Number of Awarded Projects*	Amount Funded**
Fresno	50	\$4,448,059
Butte	44	\$2,259,227
Tulare	40	\$4,586,269
San Luis Obispo	34	\$3,019,452
Monterey	28	\$3,221,962
Kings	25	\$2,613,391

**Table 3 – Projects awarded in key Southern California counties, Rounds 1-4**

County	Number of Awarded Projects*	Amount Funded**
San Diego	4	\$523,709
Los Angeles	2	\$50,000
Riverside	1	\$8,774
Ventura	1	\$103,804
Imperial	0	\$0
San Bernardino	0	\$0

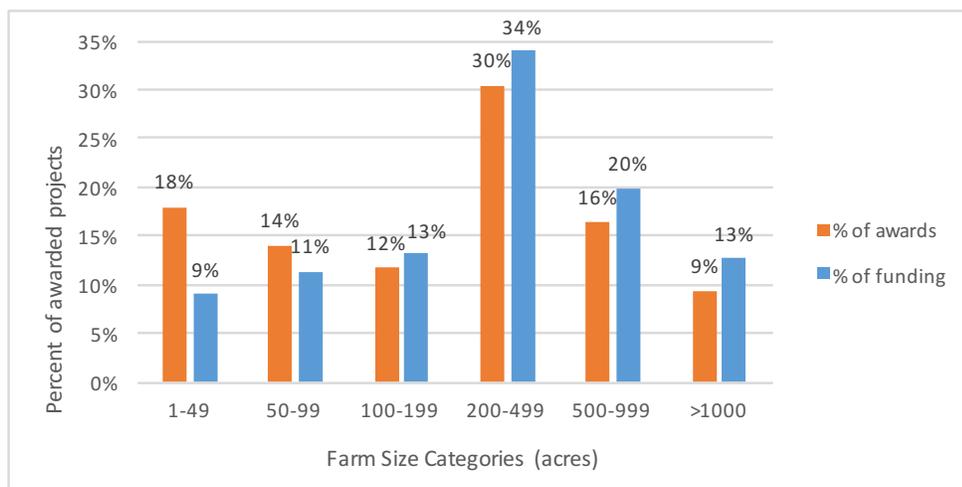
\* Note: Values include some projects that crossed county lines and were therefore counted towards multiple counties' totals.

\*\* Note: For projects that took place on operations that stretch across multiple counties, we were unable to determine what dollar amount went to activities in each county. Therefore, multiple-county projects were excluded from total funding amount.

### Farm Size

The Round 4 application was the first to collect farm size data, providing an understanding of the breadth of agriculture operations applying to SWEEP. Figure 3 shows the distribution of awards and funding received across farm size in Round 4, with smaller farm sizes receiving the second highest percentage of awards (out of 6 size categories), but the smallest percent share of funding.

**Figure 3 - Distribution of awards and funding by farm size categories (acres), Round 4**



While fewer than one-fifth of the farms in California are 200 acres or larger<sup>6</sup>, over two-thirds of Round 4 SWEEP dollars went to farms of this size.

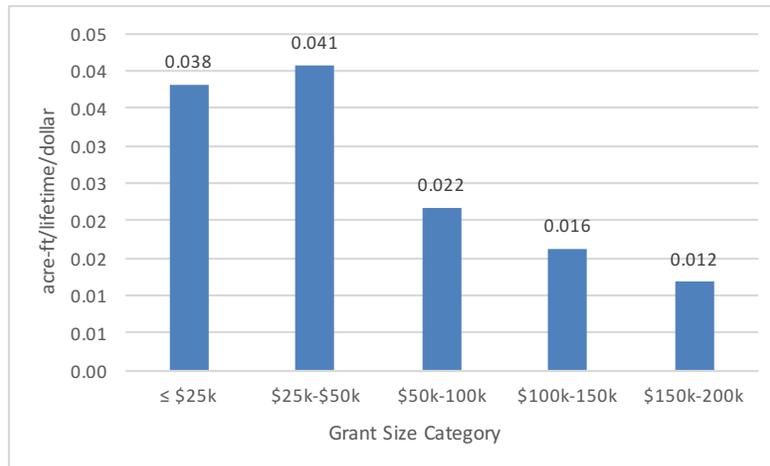
<sup>5</sup> For example, CDFA might consider working with water districts to accurately estimate the GHG benefits from reduced water demand on their customers' operations.

<sup>6</sup> According to the 2012 USDA Census of Agriculture. Data accessed online via USDA Quick Stats 2.0 on August 22, 2016.

## Water and GHG emissions benefits

Data from Round 4 continue to demonstrate that higher-funded projects (now with a project cap of \$200,000) do not necessarily produce greater water and GHG emission savings per SWEEP dollar spent. Although one might assume that 'larger' projects would yield greater 'bang for the buck', Figure 4 and Figure 5 suggest higher average per-grant-dollar water and GHG benefits in the lower funding tiers rather than the highest ones.

Figure 4 - Average per dollar impact on water savings by grant size category, Rounds 1-4\*



\*Note: Round 1 projects were not required to have both water savings and GHG emission reductions. Therefore, the one project that reported zero water savings is not included.

Figure 5 - Average per dollar impact on GHG emissions reductions by grant size category, Rounds 1-4\*



\*Note: Round 1 projects were not required to have both water savings and GHG emission reductions. Therefore, the one project that reported zero GHG emission reductions is not included. The two outlier values of 21,320 and 22,098 Tonnes CO<sub>2</sub>e/year are excluded.



The California Climate and Agriculture Network (CalCAN) is a statewide coalition that works on state and federal policy to advance the powerful climate solutions of sustainable and organic agriculture.

For more information on our SWEEP analysis, please contact Adam Kotin, Associate Policy Director: [adam@calclimateag.org](mailto:adam@calclimateag.org), 916-441-4042

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For the full SWEEP report see: [www.calclimateag.org](http://www.calclimateag.org)