MARCH 17, 2026

Climate Change and Agriculture

PRESENTED TO:

Senate Agriculture Committee
Hon. Anna Caballero, Chair

Senate Environmental Quality Committee
Hon. Catherine Blakespear, Chair

LEGISLATIVE ANALYST'S OFFICE

Greenhouse Gas Goals and Cap-and-Invest

State Has Ambitious Greenhouse Gas (GHG) Reduction Goals. California has established statutory goals for reducing statewide GHG emissions—down to at least 40 percent below the 1990 level by 2030, and to at least 85 percent below the 1990 level by 2045.

Cap-and-Invest is a Key State Program Aimed at Limiting GHGs. The California Air Resources Board (CARB) sets a declining, aggregate cap on the amount of GHGs allowed to be emitted under the program. CARB issues a set number of allowances each year equal to the annual cap. Entities covered by the program—which together represent about 80 percent of statewide emissions—can comply with the program by (1) reducing their emissions, (2) purchasing allowances, or (3) purchasing offsets. (Each allowance is essentially a permit to emit one ton of carbon dioxide equivalent.)

Cap-and-Invest Generates Revenues That Support Climate and Other Programs. Under current regulations, CARB sells about half of the allowances at quarterly auctions and the revenues are deposited into the Greenhouse Gas Reduction Fund (GGRF). Historically, GGRF revenues have been used to support a wide range of programs, many of which are aimed at reducing GHG emissions. However, from a legal perspective, GGRF funds are considered akin to tax revenues, so they can be used for any purpose.

GGRF Allocations

Recent Legislation Changes Structure of GGRF Allocations. Chapter 121 (SB 840, Limón) made various modifications to the allocation of GGRF revenues starting in 2026-27. For example, SB 840 changed some statutory allocations from being set percentages of annual GGRF revenues to fixed dollar amounts. Senate Bill 840 also modified the order in which certain allocations are made, including creating four funding tiers and setting aside $1 billion for discretionary allocations earlier in the prioritization process.

Statutorily Required GGRF Appropriations Pursuant to SB 840

Program	Department	Annual Amounts
Tier 1: Starting in 2026-27, auction revenues will be allocated first to the following programs:		
Manufacturing tax exemption	N/A	• Roughly $160 million
State operations[a]	Various	• Roughly $120 million
State Responsibility Area fee backfill	CalFire	• Roughly $90 million
Legislative Counsel Climate Bureau	Legislative Counsel	• $3 million
Tier 2: Then second to the following programs:		
High-speed rail project	HSRA	• $1 billion
Unspecified programs subject to appropriation[b]	Various	• $1 billion
Tier 3: Then third, if funding is available, to the following programs[c]:		
Affordable Housing and Sustainable Communities Program[d]	SGC	• $800 million
TIRCP	CalSTA	• $400 million
Community Air Protection Program—AB 617	CARB	• $250 million
Low Carbon Transit Operations Program	Caltrans	• $200 million
Wildfire and forest resilience—SB 901	CalFire	• $200 million
Safe and Affordable Drinking Water Program	SWRCB	• $130 million
Tier 4: Then fourth, remaining funding is subject to legislative appropriation for discretionary purposes.		

[a] SB 840 does not explicitly mention state operations as part of Tier 1, but references funding them prior to allocating Tier 3. The administration proposes budget trailer legislation to clarify that they are considered part of Tier 1.

[b] SB 840 included intent language for spending some of this funding in 2026-27.

[c] SB 840 requires the Department of Finance to proportionately reduce the amounts for these programs if there is insufficient funding to fully support them.

[d] The Governor proposes budget trailer legislation to divide the Affordable Housing and Sustainable Communities funding into two separate programs.

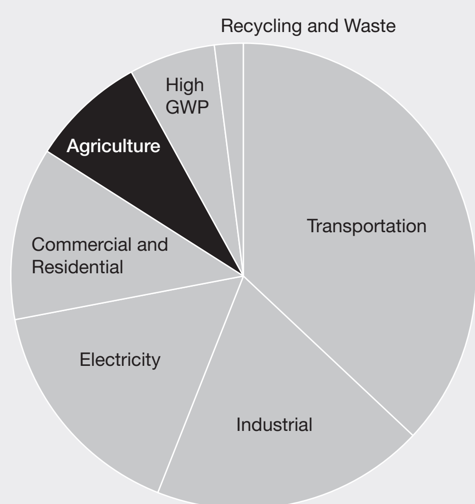
GGRF = Greenhouse Gas Reduction Fund; SB 840 = Chapter 121 of 2025 (SB 840, Limón); CalFire = California Department of Forestry and Fire Protection; HSRA = High Speed Rail Authority; SGC = Strategic Growth Council; TIRCP = Transit and Intercity Rail Capital Program; CalSTA = California State Transportation Agency; AB 617 = Chapter 136 of 2017 (AB 617, C. Garcia); CARB = California Air Rescources Board; Caltrans = California Department of Transportation; SB 901 = Chapter 626 of 2018 (SB 901, Dodd); and SWRCB = State Water Resources and Control Board.

Recent Projections Suggest Future GGRF Funding Could Be Limited. The Department of Finance does not anticipate GGRF will have adequate revenues in 2026-27 through 2029-30 to support the full amounts identified for the Tier 3 programs in SB 840. Additionally, CARB has published GGRF revenue estimates that suggest that revenues may never be sufficient to fully fund Tier 3 programs under their proposed regulations.

Agriculture-Related GHG Emissions and Goals

Agriculture Represents One Category of GHG Emissions. CARB estimates that agriculture is responsible for about 8 percent of the state's GHG emissions, making it the fifth largest source. Most—about 70 percent—of emissions from the agriculture sector consists of methane from livestock. Notably, the state's GHG inventory does not include carbon stored in agricultural or other natural and working lands. As a result, emissions from some agricultural activities—such as land use conversions and different agricultural practices—are not included in the inventory.

Agricultural Sector Is the Fifth Largest Source of State GHG Emissions



GHG = greenhouse gas and GWP = global warming potential.

State Has Methane-Specific Reduction Goals, Including for Dairy and Livestock. Chapter 395 of 2016 (SB 1383, Lara) established goals for reducing methane emissions (1) statewide to 40 percent below 2013 levels by 2030 and (2) from dairy and livestock manure management operations to 40 percent below 2013 levels by 2030.

State Efforts to Reduce GHGs From Agriculture

Most Agricultural Emissions Not Under the Cap. For example, the methane emissions that come from the dairy cows and other livestock are not covered within the cap-and-invest program.

Statute Directs CARB to Consider Adopting Dairy and Livestock Regulations. Senate Bill 1383 also directed CARB, in consultation with the California Department of Food and Agriculture, to adopt regulations to achieve the dairy and livestock reduction goals if the regulations would be technologically and economically feasible, as well as cost-effective. CARB currently is seeking feedback to inform a plan to potentially develop such regulations.

State Has Provided Financial Incentives Aimed at Reducing Agriculture Sector GHGs. This includes state-funded programs—which historically have been supported by GGRF, as well as the General Fund and bond funds—and incentives through the Low Carbon Fuel Standard program.

State Funding for Major GGRF-Funded Agriculture Programs Totals $2.5 Billion Since 2013-14

(In Millions)

Programs[a]	Entity	GGRF	GF	Bonds/SF	Totals
Sustainable Agricultural Lands Conservation Program	SGC	$568	—	—	$568
FARMER	CARB	423	$227	$113	763
Dairy Digester and Manure Management Programs[b]	CDFA	348	100	—	448
Food Production Investment	CEC	164	—	—	164
Healthy Soils Program	CDFA	117	155	46	317
State Water Efficiency and Enhancement Program	CDFA	68	119	58	244
Renewable Energy for Agriculture	CEC	10	—	—	10
Renewable Alternative Fuels	CDFA	3	—	—	3
Totals		**$1,700**	**$601**	**$216**	**$2,517**

[a] Limited to programs funded by the GGRF and any additional GF or other funding appropriated for those programs.

[b] Includes the Dairy Digester Research and Development Program, Alternative Manure Management Program, and Livestock Enteric Methane Emission Reduction Research Program.

GGRF = Greenhouse Gas Reduction Fund; GF = General Fund; SF = Special Fund; SGC = Strategic Growth Council; FARMER = Funding Agricultural Replacement Measures for Emission Reduction Program; CARB = California Air Resources Board; CDFA = California Department of Food and Agriculture; and CEC = California Energy Commission.

State Efforts to Reduce GHGs From Agriculture

(Continued)

LAO Conducted Review of Agriculture-Related Climate Programs in 2021. Our report reviewed four major state-funded programs: (1) Dairy Digester Research and Development Program, (2) Alternative Manure Management Program, (3) Healthy Soils Program, and (4) State Water Efficiency and Enhancement Program. Overall, we found that the programs have significant potential to provide GHG benefits, but the magnitude of the estimated benefits could be overstated. We recommended that, to the extent the Legislature continues to fund these programs, it direct state departments to conduct additional evaluation and research to better assess the GHG benefits.

Key Questions for Legislative Consideration

- ***How Effective Are Each of the Agriculture-Related Programs at Reducing GHGs?*** What additional evaluation and research, if any, has been conducted to better assess the GHG benefits of the state's existing agricultural programs? How does the cost effectiveness of these programs compare to that of other programs?
- ***What Role, if Any, Should Financial Incentives Play in Helping Reduce Agricultural Emissions?*** How much should the state rely on financial incentives versus other approaches, such as regulations, to reduce agricultural emissions?
- ***What Are the Legislature's Highest-Priority Uses for GGRF?*** Given the legal flexibility of the revenue source and the state's structural budget problems, we recommend the Legislature direct GGRF to its highest priorities across the budget. How does the Legislature want to prioritize agriculture-related programs compared to other potential priorities, particularly in light of recent GGRF projections?