Sustainability Roadmap 2022-2023 California Department of Food and Agriculture (CDFA)

Sustainability Master Plan
and Biannual Progress Report on Legislative Sustainability Mandates and the Governor's Sustainability Goals for California State Agencies December 2023

Gavin Newsom, Governor

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA) ROADMAP

Sustainability Road Map 2022-2023

Emanuel Pestana
Primary Author

Zaid Dominguez
Departmental Services Branch Chief

Karen Ross
Secretary

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EXECUTIVE SUMMARY

The California Department of Food and Agriculture (CDFA) works with federal and county partners to serve California citizens by promoting and protecting a safe, healthy food supply, and enhancing local and global agricultural trade, through efficient management, innovation, and sound science, with a commitment to environmental stewardship. CDFA occupies a combination of state-owned and leased facilities throughout the state.

CDFA recognizes the importance of energy efficiency, reduction of greenhouse gas emissions (GHGe), conservation, and climate adaptation. This document outlines the requirements and describes the steps CDFA is taking to comply with the Governor's Executive Orders (EO)s B-18-12, B-16-12, and other water and energy conservation policies. CDFA seeks guidance from the Department of General Services (DGS) on all facility management needs related to these facilities, from construction to maintenance repairs, and will continue to work with DGS to ensure requirements are met for all facilities.

In 2018, CDFA began working with DGS on a plan to create a solar field at the new Turlock Veterinary Laboratory which would generate more electricity than what CDFA uses for all CDFA-owned facilities. The solar field is in the planning and development phase and construction is projected to begin by 2025.

To reduce fleet energy consumption and gas emissions, CDFA significantly reduced its fleet, purchased Zero Emission Vehicles (ZEVs) such as Battery Electric Vehicles (BEVs), Plug-In Hybrid Electric Vehicles (PHEVs), and installed Electric Vehicle Supply Equipment (EVSE) to support the ZEVs, exceeding the purchasing percentage requirements set forth in EO B-16-12. CDFA has prioritized the purchase of Environmentally Preferable Purchasing (EPP) products whenever possible.

To reduce water consumption throughout its facilities, CDFA proactively repairs leaks, reduces landscape water use, replaces fixtures, and more. CDFA reduced water use by 22,765,900 gallons per year for all CDFA-owned facilities from 2010 to 2022; surpassing all requirements. CDFA continues to partner with DGS on cost-effective water conservation efforts and has made it a priority to utilize alternative water sources for all new and renovated State facilities.

I look forward to working closely with staff to achieve our conservation goals.

Karen Ross
Secretary

CHAPTER 1 - CLIMATE CHANGE

Department Mission and Climate Change Adaptation

California Department of Food and Agriculture (CDFA) has and will continue to work with Department of General Services (DGS) Real Estate Services Division (RESD) and the Project Management and Development Branch (PMDB) on all building design and construction projects.

Climate Change Risks to Facilities

Climate Change Risk Process:

To determine how to consider climate change for a given project or plan or existing infrastructure, CDFA will consider:

- The lifetime of the facility planned project, or plan.
- Changing average climate conditions or increases in extreme events over the project's lifetime. California is susceptible to many climate risks, with many locations at risk from multiple impacts, for example wildfire and mudslides in the same year. It is important to consider the possibility of single climate impacts, as well multiple, compounding events that may need more conservative planning.
- The consequences of climate impacts, compounding events, and the planned project.
- The vulnerable populations, critical natural systems, critical infrastructure, or other assets being disrupted by climate changes and compounding events.
- Irreversible effects or unacceptable risks to public health and safety caused by climate change, compounding events and proposed projects.

CDFA has and will continue to work with DGS (RESD and PMDB) on all building design and construction projects. CDFA will consider the intended use, data projections, and sustainability materials such as the *Planning & Investing for a Resilient California Guidebook* when planning new building and construction projects.

Assessing Risk from Changing Extreme Temperatures:

Table 1.1: Top 10 Facilities that Will Experience the Largest Increase in Extreme Heat Events

Facility Name	Extreme Heat Threshold (EHT) degrees Fahren-heit (°F)	Average number of days above EHT (1961-1990)	Average number of days above EHT (2031-2060)	Change from Historical to projected average number of days above EHT (2031-2060)	Average number of days above EHT (2070-2099)	Change from historical to projected average number of days above EHT (2070-2099)
Benton Border Protection Station	92.9	4.4	41.8	37.4	72.7	68.3
Dorris Border Protection Station	92.6	4.4	28.0	23.5	63.9	59.5
Hornbrook Border Protection Station	97.1	4.4	28.5	24.1	62.9	58.5
Long Valley Border Protection Station	93.6	4.4	29.3	24.9	62.0	57.6
Needles Border Protection Station	115.7	4.3	31.6	27.2	61.5	57.1
San Bernardino Veterinary Laboratory	105.8	4.4	28.4	23.9	49.6	45.2
Topaz Border Protection Station	95.4	4.4	27.2	22.7	57.2	52.8

Facility Name	Extreme Heat Threshold (EHT) degrees Fahren-heit (°F)	Average number of days above EHT (1961-1990)	Average number of days above EHT (2031-2060)	Change from Historical to projected average number of days above EHT (2031-2060)	Average number of days above EHT (2070-2099)	Change from historical to projected average number of days above EHT (2070-2099)
Tulelake Border Protection Station	94.0	4.4	28.4	23.9	66.7	62.3
Vidal Border Protection Station	112.9	4.4	35.8	31.4	69.3	64.8
Winterhaven Border Protection Station	111.6	4.4	42.1	37.7	77.0	72.6

The information in Table 1.1, from DGS regarding EHT, can be found at Cal-Adapt.org. Refer to Appendix C for CDFA-owned facility addresses. Table 1.1 shows the top ten CDFA facilities with the highest percentage of temperature range change for the indicated years.

Table 1.2: Top 10 Facilities Most Affected by Changing Temperature – Annual Mean Maximum (Max.) Temperature (Temp.)

Facility Name	Historical Annual Mean Max. Temp. (1961 – 1990)	Annual Mean Max. Temp. (2031 – 2060)	Change from Historical to Annual Mean Max. Temp (2031-2060)	Annual Mean Max. Temp. (2070-2099)	Change from Historical to Annual Mean Max. Temp (2070-2099)
Alturas Border Protection Station	62.6	68.2	5.6	73.0	10.4
Benton Border Protection Station	64.6	71.0	6.4	75.3	10.7
Blythe Border Protection Station	87.6	92.9	5.3	96.8	9.1
Hornbrook Border Protection Station	63.5	68.8	5.3	73.5	9.9
Long Valley Border Protection Station	62.4	68.3	6.0	72.8	10.4
Needles Border Protection Station	86.5	92.0	5.5	96.0	9.4
San Bernardino Veterinary Laboratory	79.8	85.2	5.4	88.8	9.0
Topaz Border Protection Station	65.6	71.4	5.9	76.0	10.5
Tulelake Border Protection Station	61.7	67.2	5.5	72.2	10.5
Vidal Border Protection Station	85.4	90.8	5.3	94.8	9.3

The information in Table 1.2 can be found at Cal-Adapt.org.

The rise in temperature shown above may increase the demand for energy used on cooling systems. Outside temperatures may also create heat advisory risks in the future for those working outdoors. CDFA remains vigilant in maintaining employee awareness, sending health notices and energy conservation reminders, reminding employees of heat illness risks and prevention methods every summer (throughout every peak heat season). CDFA also releases heat advisory warnings to all employees whenever a heat event is anticipated. CDFA does not anticipate any negative impact to occupant health within CDFA facilities or damage to structural integrity resulting from this heat increase.

Table 1.3: Top 10 Facilities Most Affected by Changing Temperature- Annual Mean Minimum (Min.) Temp.

Facility Name	Historical Annual Mean Min. Temp. (1961 – 1990)	Annual Mean Min. Temp. (2031 – 2060) °F	Change from Annual Mean Min. Temp. (2031-2060)	Annual Mean Min. Temp. (2070-2099) °F	Change from Annual Mean Min. Temp. (2070-2099)
Alturas Border Protection Station	30.2	35.6	5.4	40.4	10.2
Dorris Border Protection Station	31.5	36.9	5.4	41.6	10.1
Long Valley Border Protection Station	30.0	36.0	6.0	40.6	10.6
Mountain Pass Border Protection Station	53.2	58.4	5.2	63.0	9.8
Needles Border Protection Station	61.1	66.6	5.5	71.1	10.1
San Bernardino Veterinary Laboratory	51.2	56.5	5.3	60.6	9.4
Topaz Border Protection Station	32.5	38.5	6.0	43.2	10.7
Turlock Veterinary Laboratory	46.7	52.2	5.5	56.1	9.4
Vidal Border Protection Station	58.2	63.7	5.4	68.3	10.0
Winterhaven Border Protection Station	55.1	60.9	5.8	65.5	10.4

The information in Table 1.3, can be found at Cal-Adapt.org.

Assessing Risk from Heating Degree Days (HDD) and Cooling Degree Days (CDD)

Table 1.3a: Top 10 Facilities that will be Most Impacted by Projected Changes in HDD

Facility Name	HDD 1961-1990	Average Modeled HDD (year), 2031-2060	Change in HDD Historical to Mid-Century	Average Modeled HDD (year), 2070-2099	Change in HDD Historical to End-Century
Alturas Border Protection Station	6978.9	5236.1	-1742.8	4287.0	-2691.9
Benton Border Protection Station	5825.3	4300.4	-1524.8	3450.7	-2374.6
Dorris Agriculture Border Protection Station	7100.9	5401.1	-1699.8	4435.7	-2665.2
Hornbrook Border Protection Station	6028.5	4678.0	-1350.5	3850.9	-2177.6
Long Valley Border Protection Station	7020.2	5093.1	-1927.1	4184.4	-2835.8
Meyers Border Protection Station	8304.0	6809.0	-1495.0	6198.0	-2106.0
Redwood Border Protection Station	5936.0	4545.3	-1390.7	3757.1	-2178.9
Topaz Border Protection Station	6147.5	4321.2	-1826.2	3385.0	-2762.4
Truckee Border Protection Station	8178.0	6730.0	-1448.0	6160.0	-2018.0
Tulelake Border Protection Station	6638.3	5043.7	-1594.6	4083.9	-2554.4

The information in Table 1.3a can be found at Cal-Adapt.org.

Table 1.3b: Top 5-10 Facilities that will be Most Impacted by Projected Changes in CDD

Facility Name	CDD 1961-1990	Average Modeled CDD (year), 2031-2060	Change in CDD Historical to Mid-Century	Average Modeled CDD (year), 2070-2099	Change in CDD Historical to End-Century
Anaheim Laboratory	1092.0	1917.0	825.0	2330.0	1238.0
Blythe Border Protection Station	4029.0	5536.6	1507.5	6634.8	2605.8
Glassy Winged Sharpshooter Project (GWSS) - Arvin Field Station	2631.0	3621.7	990.8	4458.4	1827.4
Meadowview Road Complex	1190.8	2156.6	965.8	2879.8	1689.0
Mountain Pass Border Protection Station	2629.0	3546.0	917.0	3984.0	1355.0
Needles Border Protection Station	4414.3	6050.1	1635.8	7129.8	2715.5
San Bernardino Veterinary Laboratory	1792.2	3160.4	1368.3	4025.2	2233.0
Turlock Veterinary Laboratory	1185.0	2219.7	1034.7	2958.8	1773.8
Vidal Border Protection Station	3894.1	5447.6	1553.5	6501.3	2607.2
Winterhaven Border Protection Station	3459.0	5047.7	1588.7	6127.4	2668.4

The information in Table 1.3b can be found at Cal-Adapt.org.

Reporting Narrative on HDD and CDD

To prepare for future risks, CDFA has identified the facilities with the largest difference in HDD and CDD from 1961 to 2099 and included them in Tables 1.3a-b. HDD and CDD counts represent the number of days temperatures reached or are projected to reach outside the average temperature amounts for each area, indicating additional energy needed for heating or cooling over that period. To reduce energy use, CDFA has distributed energy savings tips to employees, switched to devices and lighting designed to conserve energy, and has worked with DGS on developing other energy savings where feasible. Since most of CDFA's properties consist of small inspection booths on freeways, CDFA has released heat illness prevention materials to impacted employees and

developed various tools to reduce climate risks, incentivize resilience, and increase climate adaptation throughout California.

CDFA has encouraged development of Best Management Practices (BMPs) that reduce climate risks, such as the Healthy Soils Initiative and various Specialty Crop Block Grant Program (SCBGP) projects. CDFA also facilitates incentive programs for sustainable practices for resilience, such as the State Water Efficiency and Enhancement Program (SWEEP) and the Dairy Digester Research and Development Program (DDRDP). CDFA's SWEEP has been crucial in implementing resilient water management across the state. As referenced in the California Climate Adaptation Strategy CDFA is a key partner in various agricultural projects throughout the state designed to increase positive economic and environmental impact, conservation, sustainability and improve best practices.

CDFA worked with the United States Department of Agriculture (USDA) and Colorado State University (CSU) to develop a new carbon and greenhouse gas emissions (GHGe) evaluation for the Natural Resources Conservation Service conservation practice planning tool, called the Carbon Dioxide Management Evaluation Tool-Planner. This tool was designed to enable farmers to assess the GHGe reductions from implementing various land management practices. Practices incorporated in the Carbon Dioxide Management Evaluation Tool-Planner include conservation tillage, strip tillage, cover cropping, windbreak establishment, and habitat restoration, among others. The development of tools to help California's agriculture industry adapt to climate change is one of the recommendations referenced in the California Climate Adaptation Strategy, consistent with the 2013 Climate Change Consortium final report.

Plan to Mitigate HDD and CDD

Some of the strategies CDFA may employ to reduce the impact of changing temperatures, and HDD/CDD, on facility performance and/or to protect occupant health and safety may include additional Heating, Ventilation, and Air Conditioning (HVAC) capacity, shade structures or tree planting, relocation, etc. When considering options on actions to take, CDFA will review and consider the options mentioned in the California Climate Adaptation Strategy for the applicable sector. To date, CDFA has referenced Preparing California for Extreme Heat: Guidance and Recommendations when employing strategies to reduce the impact of changing temperatures, and will continue to referencing the Extreme Heat Framework for future strategies.

Planning Outline PO1:a: Plan for Top 5-10 Facilities HDD and CDD Mitigation

Facility Name	2030
All CDFA Facilities	CDFA will continue to work with DGS to ensure requirements are met for all facilities.

Planning Narrative to Mitigate HDD and CDD

The rise in temperature may increase the demand for energy used for cooling systems and outside temperatures may create heat advisory risks in the future for those working outdoors. CDFA remains vigilant in maintaining employee awareness, reminding employees of heat illness risks and prevention methods throughout every peak heat season. CDFA also releases additional heat advisory warnings to all employees whenever a heat event is anticipated. CDFA does not anticipate any negative impact to occupant health within CDFA facilities or damage to structural integrity resulting from this heat increase.

CDFA will continue to consider various options and strategies to reduce the impact of changing temperatures on facility performance and to protect occupant health and safety HVAC capacity; shade structures or tree planting; relocation; expanding use of cool or porous materials in pavements; reviewing and improving access to and use of air conditioning; etc.).

Assessing Risk from Urban Heat Islands

Table 1.4 notes all facilities located in an urban heat island, surrounded by 5,000 square feet (Ft^2) or more.

Table 1.4: Facilities in Urban Heat Islands

Facility Name	Located in an Urban Heat Island (Yes or No)	Ft^2 of Surrounding Hardscape or Pavement if greater than 5000 Ft^2
San Bernardino Veterinary Laboratory	Yes	25,582 (Parking Lot)
Turlock Veterinary Laboratory	Yes	0 (No Hardscape)

The information in Table 1.4 is from the California Environmental Protection Agency (CalEPA), Urban Heat Island interactive maps, and Google Maps.

Reporting Narrative on Urban Heat Islands

The main cause of the urban heat island effect is from the modification of land surfaces (the temperature of a parking lot is higher than that of a grassy field). CalEPA's document: Preparing California for Extreme Heat: Guidance and

Recommendations recommends shading of buildings, asphalt and other dark surfaces with trees to reduce the urban heat island effect. Solar panels placed on canopies over parking lots and other paved surfaces can also shade and reduce the urban heat island effect.

Two CDFA facilities are in urban heat islands. Both have 30 parking spaces or fewer (San Bernardino Veterinary Laboratory has 30, and the Turlock Veterinary Laboratory has 23). Since the parking lots are so small, CDFA will need to further evaluate solutions to reduce the contribution to urban heat islands. A new Turlock Veterinary Laboratory is currently in construction to replace the current laboratory. Construction is projected to be completed by 2025 and will include additional landscaping, irrigation, and a solar field (separate construction project projected to begin by 2025). CDFA projects the new Turlock Veterinary Laboratory landscaping will reduce the urban heat island effect for the area.

Planning Outline for Urban Heat Islands Mitigation:

CDFA will evaluate and consider selecting projects based on their suitability and cost-effectiveness. Future CDFA projects may include reducing impermeable surface areas surrounding facilities, implementing additional greening measures with the use of green infrastructure as part of cooling strategies in public and private spaces, utilizing additional shading (such as trees, vegetation, or shade structures), or expanding the use of cool, porous, or sustainable materials in pavements. CDFA will work with DGS and refer to Preparing California for Extreme Heat: Guidance and Recommendations to develop the solutions which best fit the Department's needs.

Planning Outline PO1:b: Plan for Urban Heat Islands Mitigation

Facility Name	Mitigation or Plan	Est. Implementation Date
All CDFA Facilities	CDFA will continue to work with DGS to ensure requirements are met for all facilities.	CDFA will rely on DGS to determine the appropriate timeframe.

Planning Narrative for Urban Heat Islands Mitigation

CDFA will continue to work with DGS to ensure requirements are met for all facilities.

Assessing Risk from Changes in Precipitation (Precip.)

Table 1.5: Top 10 Facilities that will be Most Impacted by Projected Changes in Precipitation

Facility Name	Annual Mean Max. Precip. (1961 – 1990) (in/ years)	Annual Mean Precip. (2031 – 2060) (in/ years)	Percent (%) Change by mid-century	Annual Mean Precip. (2070 – 2099) (in/ years)	Percent change by end of century	Extreme Precip. (1960-1990) (in/day)	Extreme Precip. (2034-2064) (in/day)	Precip. (2069-2099) (in/ day)
*1	7.5	8.2	0.1	9.7	0.3	4.1	4.0	5.3
*2	4.2	3.5	-0.2	4.3	0.0	2.2	2.0	3.0
*3	14.4	15.9	0.1	18.1	0.3	4.3	5.0	6.3
*4	17.5	20.5	0.2	22.1	0.3	4.4	4.8	5.8
*5	42.9	48.9	6.0	52.3	9.4	7.7	8.1	11.4
*6	5.4	5.6	0.2	6.6	1.2	1.5	1.4	1.8
*7	12.5	13.2	0.1	14.0	0.1	3.8	4.1	4.8
*8	10.3	12.1	0.2	14.0	0.4	2.3	3.2	3.5
*9	25.7	29.4	3.7	32.1	6.4	5.0	4.4	6.6
*10	12.4	13.9	0.1	14.9	0.2	2.2	2.8	3.0

The information in Table 1.5 is from DGS, Cal-Adapt.org annual-averages, and Cal-Adapt.org extreme-precipitation.

* Due to space limitations on Table 1.5, Facility Names are defined below:

1. Benton Border Protection Station
2. Blythe Border Protection Station
3. Long Valley Border Protection Station
4. Meadowview Road Complex
5. Meyers Border Protection Station
6. Mountain Pass Border Protection Station
7. San Bernardino Veterinary Laboratory
8. Topaz Border Protection Station
9. Truckee Border Protection Station
10. Turlock Veterinary Laboratory

Reporting Narrative on Precipitation Impacts

The majority of CDFA-owned facilities are Border Protection Stations located on highways and freeways. Solar panels are not feasible for most Border Protection Stations because they are located at higher elevations where increased precipitation results in heavier snowfall. Solar panel surfaces accumulating snow could compromise the structural integrity of facilities with solar panels on the roof. The solar panels would also be unable to collect energy while covered in snow. CDFA plans to install a field of solar panels at CDFA's new Turlock Veterinary Laboratory location (The new Turlock Veterinary Laboratory is currently in construction and construction is projected to be completed by July 2025. The solar field at the new Turlock Veterinary Laboratory is in the planning and development phase and construction is projected to begin by 2025), to generate energy equivalent to the electricity used at all CDFA owned facilities, instead of installing solar panels at individual locations. CDFA may also re-evaluate the feasibility of solar panels for facilities not impacted by snow, if needed.

Planning Outline to Mitigate Precipitation Changes

CDFA will work with DGS and the California Department of Transportation (CalTrans) for Border Protection Stations and DGS to determine the necessary actions needed to protect occupant health and safety.

Planning Outline PO1:c: Plan for Top 5-10 Facilities Most Impacted by Projected Changes in Precipitation

Facility Name	Extreme Precip. (2030) Plan or Strategy
All CDFA Facilities	CDFA will continue to work with DGS and CalTrans to ensure requirements are met for all facilities.

Assessing Risk from Sea Level Rise

Table 1.6: All Facilities at Risk from Rising Sea Levels

Facility Name	Tide Chart Region	2050 Water Level (ft)	Exposed in 2050? (y/n)	2100 Water Level (ft)	Exposed at 2100? (y/n)
NO CDFA FACILITIES AT RISK					

The information in Table 1.6 can be found using the Cal-Adapt reference tool.

Reporting Narrative on Sea Level Rise Impacts
NO CDFA FACILITIES AT RISK

None of CDFA's facilities will be impacted by rising sea levels.

Planning Outline to Mitigate Sea Level Rise Impacts

NO CDFA FACILITIES AT RISK

Planning Outline PO1:d: Planning for Sea Level Rise impacts Mitigation

Facility Name	Tide Chart Region	Plan 2030?
NO FACILITIES AT RISK		

Planning Narrative of Sea Level Rise Impact

NO CDFA FACILITIES AT RISK

Assessing Risk from Wildfire

Table 1.7: Top 5-10 Facilities Most at Risk to Current Wildfire Threats by Fire Hazard Severity Zone

Facility Name	Fire Hazard Severity Zone Designation (low, medium, high, very high)
Benton Border Protection Station	Medium
Hornbrook Border Protection Station	High
Meyers Border Protection Station	Very High
Redwood Border Protection Station	Very High
Smith River Border Protection Station	Medium
Topaz Border Protection Station	Medium

The information in Table 1.7 can be found using the Cal-Adapt reference tool.

Table 1.8: Top 10 Facilities that will be Most Impacted by Projected Changes in Wildfire by Acres Burned

Facility Name	Acres Burned (1961-1990)	Acres Burned (2031-2060)	Acres Burned (2070-2099)
Alturas Border Protection Station	8.1	7.5	4.3
Dorris Border Protection Station	6.1	5.4	3.2
Hornbrook Border Protection Station	14.0	17.0	16.3
Long Valley Border Protection Station	10.2	11.0	9.8
Meyers Border Protection Station	9.4	6.9	9.6
Redwood Border Protection Station	5.4	7.5	8.2
San Bernardino Veterinary Laboratory	23.1	21.9	18.9
Topaz Border Protection Station	3.7	3.9	4.0
Truckee Border Protection Station	17.1	17.0	19.5
Tulelake Border Protection Station	12.9	11.2	7.5

The information in Table 1.8 can be found using the Cal-Adapt reference tool.

Reporting Narrative on Wildfire Risks

Table 1.8 shows the CDFA-owned facilities with the highest percentage of change in acres burned. Most of CDFA's owned facilities are Border Protection Stations located on highways or freeways that allow for some degree of separation from fires, but in the event of a fire, CDFA has emergency evacuation plans for every location and prioritizes protecting all employees' health and safety.

Planning Outline to Mitigate Wildfire Risks

CDFA will evaluate strategies, including working with DGS to determine feasibility and need for if additional precautions (such as providing masks, HVAC precautions are necessary projects such as air filtration systems, additional enclosures or other protections for employees with extended outdoor exposures, etc.) to protect employees from elevated smoke levels and harmful exposure to other potential hazards.

Planning Outline PO1:e: Plan for Mitigating Wildfire Risk by Acres Burned for Facilities Most at Risk

Facility Name	Plan 2023-2030
All CDFA Facilities	CDFA will continue to work with DGS and CalTrans to ensure requirements are met for all facilities.

Understanding Climate Risk to Planned Facilities

Cal-Adapt is the most updated source of climate change data/projections for the State of California. Using the latest climate change information from Cal-Adapt and correspondence from DGS, CDFA has collected data on the climate impacts and projected changes for each of its existing facilities.

Tables 1.9: a-g: Climate Risks to New Facilities

The information in Table 1.9 a-g can be found using the Cal-Adapt reference tool at Cal-Adapt.org. These tables are to highlight new and planned CDFA owned facilities, including:

- The construction of the replacement station for Mountain Pass Border Protection Station was completed in the Fall of 2018.
- The purchase of the Anaheim Laboratory (previously leased) was completed in December 2020.
- The construction of the replacement station for Blythe Border Protection Station is projected to begin by 2025.
- The construction of the replacement station for Turlock Veterinary Laboratory is projected to be completed by 2025. The construction for the solar field for this facility is projected to begin by 2025.
- The construction of the replacement station for Needles Border Protection Station is projected to begin by 2028.

a.1 Annual Mean Maximum Temperature

Facility Name	Historical Annual Mean Max. Temp. (1961 – 1990)	Annual Mean Max. Temp. (2031 – 2060)	Change from Historical to Annual Mean Max. Temp. (2031-2060)	Annual Mean Max. Temp. (2070-2099)	Change from Historical to Annual Mean Max. Temp. (2070-2099)
Anaheim Laboratory	76.1	80.2	4.1	81.9	5.8
Blythe Border Protection Station	87.6	92.9	5.3	96.8	9.1
Mountain Pass Border Protection Station	77.9	82.3	4.4	84.2	6.3
Needles Border Protection Station	86.5	92.0	5.5	96.0	9.4
Turlock Veterinary Laboratory	74.4	79.1	4.7	82.8	8.4

The information in Table 1.9a1, mean maximum, can be found at Cal-Adapt.org.

a.2 Annual Mean Minimum Temperature

Facility Name	Historical Annual Mean Min. Temp. (1961 – 1990)	Annual Mean Min. Temp. (2031 – 2060) °F	Change from Annual Mean Min. Temp. (2031-2060)	Annual Mean Min. Temp. (2070-2099 °F	Change from Annual Mean Min. Temp. (2070-2099)
Anaheim Laboratory	52.5	57.1	4.6	61.0	8.5
Blythe Border Protection Station	58.1	63.3	5.2	67.9	9.8
Mountain Pass Border Protection Station	53.2	58.4	5.2	63.0	9.8
Needles Border Protection Station	61.1	66.6	5.5	71.1	10.1
Turlock Veterinary Laboratory	46.7	52.2	5.5	56.1	9.4

The information in Table 1.9 a.2, mean minimum in °F, can be found at Cal-Adapt.org.

b. Annual Mean Maximum Precipitation

Facility Name	Annual Mean Max. Precip. (1961 – 1990) (in/yr.)	Annual Mean Precip. (2031 – 2060) (in/yr.)	Extreme Precip. (1960-1990) (in/day)	Extreme Precip. (2034-2064) (in/day)
Anaheim Laboratory	13.3	13.7	4.0	4.1
Blythe Border Protection Station	4.2	3.5	2.2	2.0
Mountain Pass Border Protection Station	5.4	5.6	1.5	1.4
Needles Border Protection Station	4.6	4.2	2.0	1.7
Turlock Veterinary Laboratory	12.4	13.9	2.2	2.8

This information can be found at Cal-Adapt.org.

c. Largest Increase in Extreme Heat Events

Facility Name	Extreme heat threshold (EHT) °F	Average number of days above EHT (1961-1990)	Average number of days above EHT (2031-2060)	Increase in number of days above EHT
Anaheim Laboratory	98.3	3.0	10.0	7.0
Blythe Border Protection Station	114.9	4.4	24.3	19.9
Mountain Pass Border Protection Station	107.9	3.0	16.0	13.0
Needles Border Protection Station	115.7	4.3	31.6	27.2
Turlock Veterinary Laboratory	102.2	4.4	23.8	19.4

The information in Table 1.9c can be found at Cal-Adapt.org.

d. Sea Level Rise

Facility Name	Area (California Coast, San Francisco Bay, Delta)	Sea Level Rise 0.0 m	Sea Level Rise 0.5 m	Sea Level Rise 1.0 m	Sea Level Rise 1.41 m
Anaheim Laboratory	Southern California (West Coast, by LA)	0	0	0	0
Blythe Border Protection Station	California Desert (South-East corner of California)	0	0	0	0
Mountain Pass Border Protection Station	California Desert (South-East corner of California)	0	0	0	0
Needles Border Protection Station	California Desert (South-East corner of California)	0	0	0	0
Turlock Veterinary Laboratory	Central California	0	0	0	0

The information in Table 1.9d can be found using the Cal-Adapt reference tool.

e. Wildfire Risks by Fire Hazard Severity Zone

Facility Name	Current Fire Hazard Severity Zone (low, medium, high, very high)
Anaheim Laboratory	Low
Blythe Border Protection Station	Low
Mountain Pass Border Protection Station	Low
Needles Border Protection Station	Low
Turlock Veterinary Laboratory	Low

The information in Table 1.9e can be found using the Cal-Adapt reference tool.

f. Wildfire Risk by Acres Burned

Facility Name	Acres Burned (1961-1990)	Acres Burned (2031-2060)
Anaheim Laboratory	0.0	0.0
Blythe Border Protection Station	0.9	0.7
Mountain Pass Border Protection Station	0.8	0.7
Needles Border Protection Station	0.2	0.2
Turlock Veterinary Laboratory	0.0	0.0

The information in Table 1.9f can be found using the Cal-Adapt reference tool.

g. Risk from HDDs/CDDs

Facility Name	HDD/CDD (1961-1990)	HDD/CDD (2031-2060)
Anaheim Laboratory	1338 / 1092	715 / 1917
Blythe Border Protection Station	1159.3 / 4029.0	568.5 / 5536.6
Mountain Pass Border Protection Station	2407 / 2629	1755 / 3546
Needles Border Protection Station	1205.1/ 4414.3	614.7 / 6050.1
Turlock Veterinary Laboratory	2812.1 / 1185.0	1814.0 / 2219.7

The information in Table 1.9g can be found using the Cal-Adapt reference tool.

Planning Narrative for Understanding Climate Risks to Planned Facilities

CDFA will continue to work closely with DGS (RESD and PMDB) for all new facility site searches to meet all requirements for new and existing facilities and determine necessary actions to prepare for potential hazards and protect employees.

Understanding the Potential Impacts of Facilities on Communities

When evaluating criticality and climate risk to CDFA facilities, CDFA will consider nearby and impacted populations. For example, prisons or state hospitals serve many populations that are considered vulnerable. In other cases, facilities may be located near communities that have characteristics that could contribute to higher vulnerability.

Reporting on Facilities located in Disadvantaged Communities

CDFA works with DGS to meet all facility requirements.

CDFA also provides various programs and services which impact climate change and disadvantaged communities throughout California, including:

The Farm Equity Office, which works in partnership and collaboration with historically underserved producers, organizations and communities, to make steady progress towards achieving the agencies' goals of ensuring all Californian's have access to programs, benefit from programs and funding and have a voice in policies, regulations and programs that impact the most underserved agricultural communities statewide.

The Fairground and Community Resilience Centers Program focuses on improving both local fairground and other community facilities to enhance the state's emergency preparedness capabilities, particularly in response to climate change. The program has been split into two tracks for awarding facilitation purposes. As of 2022, this program awarded up to $89 million in grants to fairgrounds across the Network of California Fairs, as part of the Fairground and Community Resilience Centers Program using the California general fund budget. An additional $38 million in grant awards are expected to be announced in July 2023 to other community resilience center projects throughout the state.

CDFA meetings and public forums are held to discuss environmental issues with potential impacts to disadvantaged communities, the agricultural industry, and all of California. Some meeting topic examples include: issues related to safe drinking water in disadvantaged communities, stakeholders' input on the AMMP and impacts to disadvantaged communities, and wildfire disaster assistance (resources available to communities).

The following CDFA programs and initiatives, which have issued financial grants and awards for projects in disadvantaged communities:

- CDFA contributes to and provides funding for programs which strengthen local and regional food systems by supporting and creating incentives for establishment of urban and peri-urban agriculture, farm to fork programs, farmers' markets, and school and community gardens, supported by the agriculture industry.
- The SCBGP encourages projects that support and promote sustainable agricultural practices such as water conservation and

practices that reduce soil degradation and the use of fossil fuel-based inputs such as pesticides and synthetic fertilizers.

- The DDRDP encourages the implementation of dairy digesters that result in long-term methane emission reductions on California dairies and minimize or mitigate adverse environmental impacts.
- The Alternative Manure Management Program (AMMP) provides financial assistance for the implementation of non-digester manure management practices in California, which will result in reduced GHGe.
- SWEEP facilitates integration of irrigation systems that reduce GHGe and save water on California agricultural operations.
- CDFA leads the Healthy Soils Initiative, in conjunction with the Healthy Soils Program (HSP), which is intended to reduce GHG; promote resiliency; improve the capacity of communities to prepare, respond, and recover from climate-related health risks by storing water in soils; reduce agricultural water needs; improve nutritional value of crops; and reduce the need for chemical inputs such as fertilizers.

CDFA has and will continue to award grants to projects that are beneficial to severely disadvantaged communities and Socially Disadvantaged Farmers and Ranchers (SDFRs). CDFA provides at least 5 percent of each appropriation for technical assistance per Assembly Bill (AB) 2377 (Statutes of 2022, Irwin) to support outreach to SDFRs. CDFA considers SDFRs, Disability Advisory Committee and Priority Population benefits in grant scoring.

Table 1.10: Facilities Located in Disadvantaged Communities

Facility Name	CalEnviroScreen Score	Is it located in a disadvantaged community? Yes/No
Alturas Border Protection Station	31.78	Yes
Anaheim Laboratory	33.94	Yes
Benton Border Protection Station	7.55	No
Blythe Border Protection Station	17.35	Yes
Dorris Border Protection Station	13.82	No

Facility Name	CalEnviroScreen Score	Is it located in a disadvantaged community? Yes/No
GWSS - Arvin Field Station	49.17	Yes
Hornbrook Border Protection Station	16.31	No
Long Valley Border Protection Station	13.21	No
Meadowview Road Complex	31.35	No
Meyers Border Protection Station	6.6	No
Mountain Pass Border Protection Station	34.09	Yes
Needles Border Protection Station	34.09	No
Redwood Border Protection Station	41.74	No
San Bernardino Veterinary Laboratory	53.05	Yes
Smith River Border Protection Station	16.4	No
Topaz Border Protection Station	12.56	No
Truckee Border Protection Station	1.93	No
Tulelake Border Protection Station	18.51	No
Turlock Veterinary Laboratory	23.91	Yes
Vidal Border Protection Station	50.99	No
Winterhaven Border Protection Station	21.08	No

The information in Table 1.9 can be found using the Disadvantaged Communities Map published per Senate Bill (SB) 535 and the California Communities Environmental Health Screening Tool (CalEnviroScreen) and score spreadsheet.

Planning Narrative for Facilities in Disadvantaged Communities

CDFA has and will continue to award grants to projects that are beneficial to severely disadvantaged communities and SDFRs. In 2021-2022, CDFA awarded $2,782,683 toward ten SCBGP projects that benefit socially disadvantaged farmers. As of Fall 2023, CDFA has awarded $530 million toward AMMP, DDRDP, HSP and SWEEP projects using one-time funding appropriated in the annual Budget Act. CDFA provides at least 5 percent of each appropriation for technical assistance per Assembly Bill (AB) 2377 (Statutes of 2022, Irwin) to support outreach to SDFRs. CDFA considers SDFRs, Disability Advisory Committee and Priority Population benefits in grant scoring.

New Facilities and Disadvantaged Communities and Urban Heat Islands

Table 1.11: New Facilities and Disadvantaged Communities and Urban Heat Islands

Facility Name	Located in a Disadvantaged Community (yes/no)	Located in an urban heat island (yes/no)
Anaheim Laboratory	No	Yes (parking lot)
Blythe Border Protection Station	No	No (located on a freeway)
Mountain Pass Border Protection Station	No	No (located on a freeway)
Needles Border Protection Station	No	No (located on a freeway)
Turlock Veterinary Laboratory	Yes	No (No Hardscape)

The information in Table 1.11 is from California Environmental Protection Agency (CalEPA), CalEnviroScreen, Urban Heat Island interactive maps and Google Maps. Border protection stations are located on freeways so there is no clear border for hardscape to determine urban heat island.

Integrating Climate Change into Department Funding Programs

Executive Order (EO) B-30-15 extends beyond infrastructure to broader planning efforts. CDFA strives to work with communities to prepare for climate change and resolve potential concerns for public health and safety and environmental protection. One example of CDFA's efforts would be the public comment sessions held in conjunction with the California Natural Resources Agency (CNRA) and CalEPA, to encourage feedback from the public on creating climate-resilient water systems. The intent is to broaden California's approach on water in the face of a range of existing challenges. Some examples of concerns the public comment sessions may take into consideration include major flood risks that threaten public safety, extreme droughts, severely depleted groundwater aquifers, rising temperatures, year-round wildfires, aging infrastructure, agricultural communities coping with uncertain water supplies and declining species such as native fish populations threatened with extinction, contaminated water supplies, and changing demands for water. The public comment sessions may also review potential projects to build a safe and dependable climate-resilient water system and ensure healthy waterways for the state's communities, economy, and environment.

CDFA continues to work with relevant stakeholders to address water concerns such as ensuring safe drinking water, regional water access, groundwater access, conservation, and drought preparedness. CDFA will continue to work with DGS, CNRA, and CalEPA to integrate climate change planning when feasible.

Table 1.12: Integration of Climate Change into Department Planning

Name of Plan	Have you integrated climate?	If no, when will it be integrated?
Install solar field at Turlock Veterinary Laboratory	No	2025

To reach GHGe reduction goals and Zero Net Energy (ZNE) goals, CDFA plans to install a field of solar panels at CDFA's new Turlock Veterinary Laboratory location. The new Turlock Veterinary Laboratory is currently in construction and construction is projected to be completed by July 2025. The solar field at the new Turlock Veterinary Laboratory is in the planning and development phase and construction is projected to begin by 2025. CDFA's Building and Property Management Unit (BPMU) and the Office of Environmental Farming and Innovation (OEFI) will work together in developing additional planning to integrate climate change into CDFA infrastructure. CDFA will consult with DGS' Office of Sustainability regarding best practices from other departments that

have integrated climate change into departmental planning. CDFA will determine the best course of action to prepare for projected climate change effects impacting CDFA facilities.

Reporting Narrative for Integrating Climate Change into Department Planning Process

CDFA will continue to work closely with DGS (RESD and PMDB) for all new facility site searches to meet all requirements for new and existing facilities. Relevant climate risks are considered by DGS experts and will be reported on CDFA's Sustainability Roadmap when sites have been acquired.

Planning Narrative for Integrating Climate Change into Department Planning Process

When evaluating criticality and climate risk to CDFA facilities, CDFA will consider nearby and impacted populations. For example, prisons or state hospitals serve many populations that are considered vulnerable. In other cases, facilities may be located near communities that have characteristics that could contribute to higher vulnerability.

Community Engagement and Planning Processes

Table1.13: Community Engagement and Planning Processes

Name of Plan	Does this plan consider impacts on vulnerable populations? (Yes/No)	Does this plan include coordination with local and regional agencies? (Yes/No)	Does this plan prioritize natural and green infrastructure? (Yes/No)
CDFA will continue to work with DGS to ensure requirements are met for all facilities.	Yes	Yes	Yes

CDFA will continue to work with DGS to ensure requirements are met for all facilities. CDFA also awards grants that benefit SDFRs, California's agriculture industry, and communities.

Reporting Narrative for Community Engagement and Planning Processes

Climate change disproportionately impacts vulnerable communities, with certain populations experiencing heightened risk and increased sensitivity to climate change and have less capacity to recover from changing average conditions and more frequent and severe extreme events. Several factors contribute to vulnerability, often in overlapping and synergistic ways. These can include several social and economic factors, and be determined by existing environmental, cultural, and institutional arrangements. Vulnerable populations can include, but are not limited to, people living in poverty; people with underlying health conditions; linguistically or socially isolated individuals; communities with less access to healthcare or educational resources; or communities that have suffered historic exclusion or neglect.

While there is no single tool to identify vulnerable populations in an adaptation context, there are several statewide, publicly available tools that, when overlaid with climate projection data, can help identify communities most at risk to a changing climate. Some of these tools, including a definition for vulnerable communities, are available in a resource guide developed by the Integrated Climate Adaptation and Resiliency Program in the Office of Planning and Research.

CDFA has several systems in place to assist vulnerable populations and communities. To mitigate the impacts of climate change and other potential hazards, CDFA works with farmers to improve environmental practices. To assist struggling communities, CDFA helps communities and farmers by connecting low income communities that benefit from low cost fresh products with struggling farmers that need help selling their products, so both parties can benefit through programs such as Farm-to-Fork and farmers' markets. In addition, CDFA, supported by California's agriculture industry, also assists communities by helping to establish school and community gardens. Refer to CDFA's report: Improving Food Access in California and the SCBGP for more details on CDFA's efforts on assisting disadvantaged communities and improving industry practices.

CDFA is the lead agency for the Emergency Support Function 11 (ESF 11) of the California State Emergency Plan. CDFA supports the responsible jurisdiction and coordinates activities during and immediately following emergencies impacting the agriculture and food industry and supports the recovery of impacted industries and resources post disaster. In addition, CDFA coordinates efforts to provide evacuation shelters at the fairgrounds throughout the state.

Planning Narrative for Community Engagement and Planning Processes

When evaluating criticality and climate risk to CDFA facilities, CDFA will consider nearby and impacted populations. For example, prisons or state hospitals serve many populations that are considered vulnerable. In other cases, facilities may be located near communities that have characteristics that could contribute to higher vulnerability.

Climate Change Implementation Planning in Funding Programs

Table1.14: Climate Change Implementation Planning in Department Funding Programs

Name of Grant or Funding Program	Have you integrated climate change into program guidelines? (Yes/No)	If no, Date it be integrated?	Does this Funding Program consider impacts on vulnerable populations? (Yes/No)	Does this Funding Program include coordination with local and regional agencies? (Yes/No)
AMMP	Yes	N/A	*Yes	Yes
DDRDP	Yes	N/A	*Yes	Yes
HSP	Yes	N/A	*Yes	No
SWEEP	Yes	N/A	*Yes	No

*Programs listed in Table 1.14 consider SDFR, DAC and/or Priority Population benefits in funding recommendations.

Reporting Narrative for Climate Change Implementation Planning in Funding Programs

Grant funding is designated for specialized purposes unrelated to CDFA facilities (such as industry impacts on the environment) and is not location specific.

CDFA will continue to assist California's agricultural industry with reducing the impacts of climate change. CDFA's OEFI supports agricultural production and incentivizes practices resulting in a net benefit for the environment through innovation, efficient management, and science. These programs are funded by one-time appropriations from the annual Budget Act and have a mandate to address GHGe and/or other environmental impacts. Programs address crop and livestock agriculture and CDFA has invested in research and information synthesis to keep programs up to date with the latest in Climate Smart Agriculture practices. CDFA has also developed a suite of environmental benefit

quantification tools, in collaboration with state agencies, non-profits and academia, to help the agency estimate the benefit of state investments in conservation agriculture. Lastly, CDFA concurrently supports technical assistance to producers to ensure the successful implementation of CDFA-funded Climate Smart Agriculture projects.

CDFA has encouraged development of BMPs that reduce climate risks, such as SCBGP. As referenced in the California Climate Adaptation Strategy CDFA is a key partner in various agricultural projects throughout the state designed to increase positive economic and environmental impact, conservation, sustainability and improve best practices.

Planning Narrative for Climate Change Implementation Planning in Funding Programs

CDFA will continue to incorporate climate change implementation with available funding wherever feasible. This includes CDFA's grant programs, such as OEFI's flagship grant programs (AMMP, DDRDP, HSP and SWEEP), which will continue to incorporate GHGe mitigation in their funding requirements as part of their statutory mandate.

Measuring and Tracking Progress

Reporting Narrative on Measuring and Tracking Progress

Changing climate conditions necessitate an adaptive management approach. An adaptive management approach is informed by tracking changing climate conditions and the performance of a plan or project. Building check points into a project or plan timeline can help to create a system for regular review and, if needed, adjustments.

CDFA will utilize tools from DGS, Energy Star, CalEPA, Climate Registry Information System (CRIS), and other conservation tools to ensure all requirements are met. CDFA saves annual data to compare to benchmarks and will continue to improve practices based on the information collected.

CDFA has made various energy and water conservation efforts such as encouraging employees to reduce use where feasible, repairing or replacing broken fixtures and equipment, and pursuing a solar field for the new Turlock Border Protection Station.

CDFA currently relies on DGS to integrate all facility improvements related to climate change. DGS RESD maintains and updates facility policies to meet all

climate change requirements. CDFA has and will continue to work with DGS (RESD and PMDB) on all building design and construction projects, to identify and prioritize natural and green infrastructure options, and development of policies to integrate climate change into all infrastructure investments.

CHAPTER 2 – ZERO EMISSION VEHICLES (ZEVS)

Department Mission and Fleet

CDFA's mission is to serve the citizens of California by promoting and protecting a safe, healthy food supply, and enhancing local and global agricultural trade, through efficient management, innovation, and sound science, with a commitment to environmental stewardship. CDFA uses vehicles for various tasks to support this mission, such as inspections, outreach, surveillance, and detection.

CDFA is making strides to replace its fleet with Zero Emission Vehicles (ZEVs) such as Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVS), where feasible. BEVs and PHEVs are periodically used for travel to various locations throughout the state to perform outreach and site inspections; but, generally, BEVs or PHEVs are used for shorter distance trips, normally on paved roads, such as travel between various CDFA locations to make deliveries, visit other programs, participate in trainings, or perform various other responsibilities necessary to continue efficiently function within the Department. Vehicles are charged onsite at CDFA's facilities.

Non-ZEVS are also essential for some of the functions required to achieve CDFA's mission. Some examples of the functions requiring non-ZEVs include:

- Inspection and Compliance – Compliance and enforcement investigations throughout California: Vehicles must be able to travel every day, often for the entire shift. Sport Utility Vehicles (SUVs) are generally used for this work to accommodate the space needed for the investigator and equipment, the covert nature of the work, and keyless entry for quick access in an emergency.

- Livestock Identification – Cattle inspections, surveillance, and retrieval: Light-Duty (LD) and Heavy-Duty (HD) trucks are needed to provide stable driving over rugged terrain, in rural areas where no charging is available, and have the hauling power to transport stolen calves (which can weigh between 500-1000 pounds). There are currently no ZEVs available that can provide the hauling power needed.

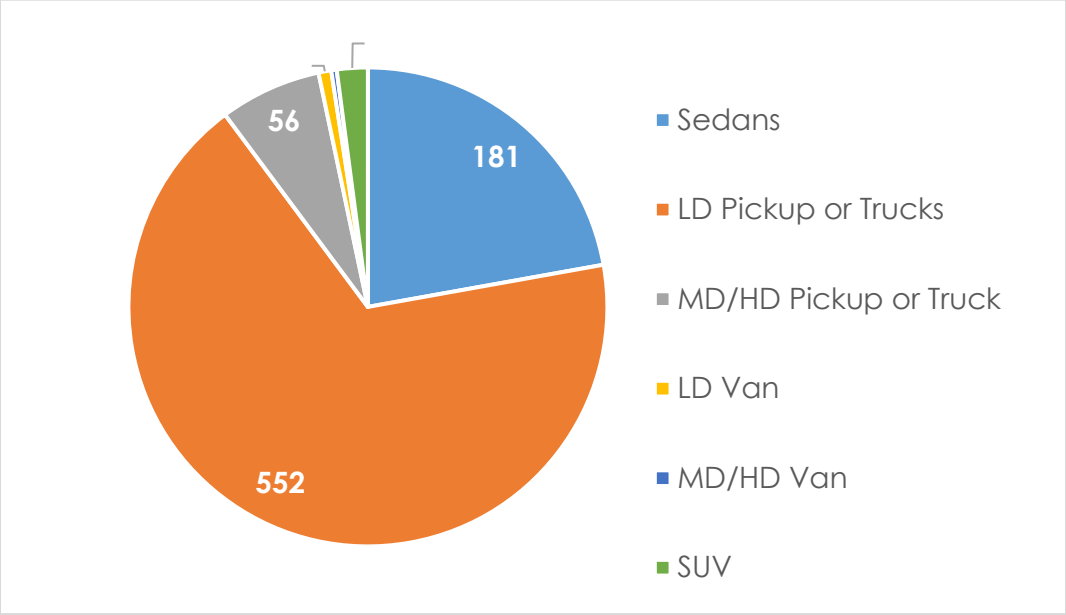
- Pest Detection – Exotic pest surveys and eradication activities: Vehicles must be able to work in rural areas with rough terrain or in groves. ZEVs cannot be used due to the rural area where no

charging is available. LD, Medium-Duty (MD), and HD Trucks are necessary to haul large loads of soiled materials, including agricultural equipment, pest samples, large tanks, pesticides, various trapping supplies, and hazardous waste. There are currently no ZEVs available that can provide the hauling power needed.

Composition of Vehicle Fleet

Per CDFA's Fleet Management Database and the information reported through the State of California Green Fleet, CDFA has 816 vehicles: 10 Cargo/Passenger Vans, 608 Trucks, 17 SUVs, four Sedans, 177 ZEVs (113 PHEVs, and 64 electric/BEVs). These numbers include 294 vehicles that are leased long-term from DGS.

Graph 2.1: 2022 Composition of Vehicle Fleet



The information in Graph 2.1 was derived from CDFA's Fleet Management Database. CDFA's fleet is comprised of 816 vehicles: including 757 LD vehicles (181 sedans, 552 pickup or trucks, seven vans, 17 SUVs) and 59 MD/HD vehicles (56 pickup of trucks, three vans). All vehicle counts are as of Fall 2023. Vehicle counts change regularly depending on the number of new vehicles received and old vehicles sold.

Fuel Types

Reporting on Total Fuel Use by Fuel Type.

CDFA anticipates a continued increase in Miles Per Gallon (MPG) as more fuel-efficient vehicles are purchased. CDFA has increased ZEVs by an average of 10 ZEVs every year since 2015. The largest increase of ZEVs was in 2019, when CDFA increased the ZEVs purchased and leased by 103 vehicles, which led to the highest MPG reduction up to that point.

Table 2.1: Total Fuel Purchased in 2022

Fuel Type	Diesel	Gasoline	Renewable Diesel
Fuel Amount in Gallons	10,397	301,441	0

Table 2.1 was completed using data from State of California Green Fleet.

Reporting Narrative on Fuel Type Selections

Instead of establishing a CDFA fuel selection policy, CDFA complies with the ZEV mandate when selecting fuel types noted in CDFA's annual Fleet Acquisition Plan. CDFA uses WEX Card purchase history to determine the fuel type and amount purchased. CDFA will strive to continue to meet the Administration's ZEV purchasing goals, per the 2016 ZEV Action Plan, to have 50 percent of the LD vehicles purchased each year be ZEVs (this includes BEVs and PHEVs) by 2025. CDFA will continue to reduce the number of vehicles using diesel and gas while increasing the number of ZEVs and install the infrastructure to support this shift. As CDFA purchases more ZEVs, the consumption of diesel and gas will be reduced.

CDFA determined that installation of hydrogen fueling infrastructure at Department facilities is not an efficient use of state funds to reduce GHGe, especially since CDFA does not own any hydrogen fueled vehicles. CDFA has purchased ethanol as an alternate fuel type and will continue to pursue alternate options to better serve the reduction of GHGe.

Rightsizing the Fleet

Teleworking, Mission Changes, and Technology Changes

CDFA continues to review its annual purchasing plan as it relates to telework and fleet use. CDFA's telework policy does not impact field staff, who are the main users of its vehicle fleet. CDFA's purchasing plan requires that if a vehicle is needed for a teleworking employee, the requesting CDFA program will provide a justification for that vehicle including the daily use amount and purpose.

NO MISSION CHANGES

The only recent fleet-related change in CDFA technology is telematics, which has no impact on CDFA's fleet purchases.

CDFA's staff in the Animal Health and Food Safety Services Division, Marketing Services Division, Division of Measurement Standards, Inspection Services Division, Citrus Pest and Disease Prevention Division, Pierce's Disease Control Program (PDCP), and Plant Health and Pest Prevention Services Division often work in the field in rural areas performing agricultural duties where trucks or SUVs are required to carry out duties on rough terrain in remote areas. Sedans and ZEVs are often not a feasible option because the tasks required include transportation of livestock, pests, hazardous materials, and bulky/heavy equipment.

CDFA utilizes ZEVs for urban offices and will continue to purchase ZEVs and install Electric Vehicle Supply Equipment (EVSE), reducing its non-ZEV fleet, where feasible.

Telematics Implementation Status

Reporting Narrative on Telematics Implementation Status

COMPLETED TELEMATICS IMPLEMENTATION

Telematics is a method for monitoring vehicle use. Using Global Positioning System (GPS) and on-board diagnostics, telematics provides valuable information that often results in fuel savings and improved vehicle utilization. Telematics is especially important for verifying that PHEVs are maximizing the use of electric fuel rather than gasoline. Departments that have committed to installing telematics on their fleet do not need to purchase solely BEVs to meet ZEV mandates; they can purchase PHEVs for half the ZEVs required to meet ZEV mandates. These purchases should still impact the same percentage of the Department's fleet.

In accordance with State Administrative Manual (SAM) section 4122, CDFA installed telematics devices on all state fleet assets. Departments were required to develop and issue a telematics policy specific to their needs by March 31, 2021, install telematics devices on all LD vehicles by August 1, 2021, and install telematics on all remaining assets by February 1, 2022. CDFA consulted with representatives from CalTrans and DGS, Office of Fleet and Asset Management (OFAM). A CDFA telematics policy was completed in 2021. Leveraging the

statewide telematics contract, which DGS OFAM and CalTrans developed, telematics GPS devices were installed on CDFA's fleet and fulfilled this requirement. In May 2022, CDFA was informed by DGS to cease all telematics installations for future vehicle purchases. To date, CDFA has 48 vehicles that do not have telematics and are waiting for further installation guidance from DGS.

Planning Narrative for Telematics Data

CDFA will discuss using telematics data to further the adoption of ZEVs into its fleet in the upcoming fiscal year. CDFA will evaluate the feasibility of utilizing telematics reports to monitor and analyze fleet usage to identify future vehicle replacements with fuel efficient alternatives. CDFA will also evaluate the feasibility of using telematics to enforce regular PHEV charging. CDFA evaluates the operational efficiency of implementing policy changes derived from telematics data.

Light-Duty (LD) Fleet Vehicles

LD Vehicles are primarily used to transport passengers and cargo (e.g., cars, vans, SUVs, pickup trucks), with a gross vehicle weight rating (GVWR) less than or equal to 8,500 pounds (i.e., Class 1 through Class 2 vehicles, as designated by the U.S. Department of Transportation).

CDFA primarily uses LD vans, SUVs, and sedans, such as ZEVs, for urban offices to make small deliveries, participate in trainings, or perform various other responsibilities necessary to continue efficiently function within the Department. LD vehicles are also used for travel throughout the state to perform outreach and site inspections.

Most LD trucks are utilized for CDFA inspections and investigations. The inspections and investigations require daily field use in which the vehicle is used for the full workday, through rough terrain, hills, groves, and other agricultural areas. Trucks are used to haul large bulky or soiled materials. Tasks associated with these trips include inspecting cattle for diseases, ensuring food safety, etc. Short trips for LD trucks occasionally include towing equipment, like snowplows to clear the snow during the winter, when needed at CDFA Border Protection Stations. The LD vs MD/HD truck loads differ by the weight and size of the materials transported. LD trucks are generally used for loads not practical for sedans. MD/HD trucks are generally used for loads LD trucks cannot handle.

Reporting On Total Miles Traveled

Table 2.2: Total Miles Traveled

Year	2017	2018	2019	2020	2021	2022
Total Miles	9,591,684	10,109,936	6,494,083	6,066,134	10,478,755	8,558,843

Table 2.2 was completed using CDFA's historical records and State of California Green Fleet and Geotab (CDFA's telematics reporting system). In 2019, some mileage was unaccounted for due to software issues.

Reporting Narrative on Total Miles Traveled

CDFA will continue to facilitate a business model that integrates more remote employment to encourage reduced travel but the total miles per year may increase as CDFA takes on additional roles in various areas such as inspection, regulation, and stewardship. Annual mileage totals fluctuate year to year depending on outbreaks of pest and plant diseases and animal health emergencies. If multiple outbreaks occur in one year, mileage will increase, while a reduction in miles may result when diseases are eradicated. To limit the total miles traveled, CDFA encourages employees to consolidate tasks where feasible. CDFA will analyze telematics data and implement manual and instruction updates to provide more formal encouragement in the future where feasible.

Reporting On Miles Per Gallon (MPG)

Table 2.3: LD MPG

Year	2017	2018	2019	2020	2021	2022
MPG	19	20	11	13	29	33

Table 2.3 was completed using data from State of California Green Fleet.

Reporting Narrative on MPG

CDFA has steadily increased the number of PHEVs and BEVs used in its fleet and anticipates an increase in MPG as more fuel-efficient vehicles are purchased. The MPG drop in 2019 was due to Long-Term Rental (LTR) mileage reporting issues (switched from "State Miles Driven Report" to "Average Vehicle Miles Traveled Reports"). CDFA switched to a new system for gas purchases (from Voyager to WEX on July 1, 2021), resulting in tracking gaps.

Per CDFA's records:

- In 2017, the average was 19 MPG (9,591,684 total miles driven [6,494,462 miles driven in fleet vehicles + 3,097,222 miles driven in LTR vehicles from private rental agencies] / 514,679 gallons of fuel used = 19 MPG).

- In 2018, the average was 20 MPG (10,109,936 total miles driven [6,635,731 miles driven in fleet vehicles + 3,474,205 miles driven in LTRs] / 514,679 gallons of fuel used = 20 MPG).

- In 2019, the average was 11 MPG (6,494,083 total miles driven [5,707,320 miles driven in fleet vehicles + 786,763 miles driven in LTRs, but some LTR mileage is not accounted for] / 574,162 gallons of fuel used = 11 MPG).

- In 2020 the MPG for CDFA was 13 MPG (6,066,134 total miles driven [5,198,740 miles driven in fleet vehicles + 867,394 miles driven in LTRs] / 472,145 gallons of fuel used = 13 MPG).

- In 2021 the MPG for CDFA was 29 MPG (10,478,755 total miles driven [9,039,861 miles driven in fleet vehicles + 1,438,894 miles driven in LTRs] / 367,289 gallons of fuel used = 29 MPG).

- In 2022 the MPG for CDFA was 33 MPG (10,387,323 total miles driven [9,113,647 miles driven in fleet vehicles + 1,273,676 miles driven in LTRs] / 311,838 gallons of fuel used = 33 MPG).

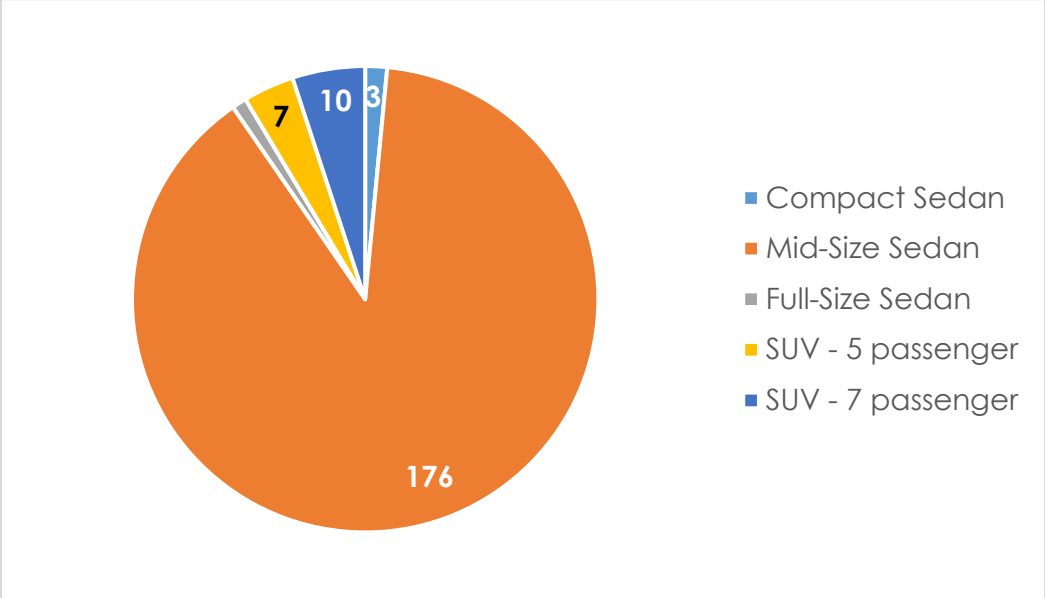
CDFA supports California's growing local and global food and agricultural system, by addressing threats to livestock health, newly found pests and diseases, or other issues impacting California's food supply, agricultural trade, or environmental stewardship. Driving routes have and will continue to change as issues develop and evolve, requiring vehicles to travel to new project locations.

Some routes use more MPG because they are in more congested areas or require additional mileage through unpaved, uneven, rough, and loose terrain while carrying heavy materials such as chemicals or equipment for inspections, surveys, investigations, enforcement, or infection/infestation experiments and control activities. The increase in BEVs and PHEVs where feasible has helped to improve the average MPG for the Department, but the specialized needs required in the field create obstacles to implementing BEVs or PHEVs. To further improve MPG, and per DGS regulations, CDFA references telematics to mitigate speeding and ensures all vehicles have regular tune-ups, oil changes, air filter replacements, and tire pressure checks. CDFA will continue to reduce the

carbon footprint created by state-owned vehicles by continuing to purchase BEVs or PHEVs that meet the needs of the Department. Telematics data will be used to support BEV and PHEV use and purchases, which will further increase MPG efficiency.

Composition of LD Vehicle Fleet

Graph 2.2: Composition of LD Vehicle Fleet



The information in Graph 2.2 was derived from CDFA's internal data. CDFA's LD Fleet includes 757 vehicles (181 sedans, 552 trucks, seven vans, 17 SUVs). CDFA's sedans can be broken down as follows: three compact sedans, 176 mid-sized sedans, and two full-sized sedans. CDFA has 17 SUVs: seven 5-passenger SUVs, and 10 7-passenger SUVs.

Take-Home Vehicle Fleet Status

Table 2.4: Take-Home Vehicle Fleet Status

Vehicle Type	Sedans	LD Trucks	MD/HD Trucks	LD Van	MD/HD Van	SUV
Totals	80	178	0	0	0	0

The information in Table 2.4 was derived from CDFA's internal data. Vehicle counts and CDFA's vehicle home storage permit certifications are as of Fall 2023. Vehicle counts change regularly depending on the number of new vehicles received, old vehicles sold, and the type of work being performed by the employee.

Planning Narrative on Integrating the Take-Home Vehicle Program with Telework and Emissions Reduction Strategies

Vehicles that are authorized for home storage, per SAM Section 4109, are subject to all applicable ZEV purchasing policies. When incorporating ZEVs authorized for home storage into CDFA's fleet, CDFA adheres to the ZEV purchasing mandate based on the total number of vehicles requested for the Department's annual Fleet Acquisition Plan (FAP). CDFA evaluates the range and charging station availability for each vehicle needed and uses that data to determine whether the right type of ZEV to be purchased is a BEV or PHEV.

CDFA's charging policy holds employees accountable for ensuring ZEVs are charged by the employees utilizing the vehicles. Employees driving ZEVs with Home Storage Permits are required to charge overnight at their home and/or use ChargePoint stations near their home. The type of vehicle taken home by employees depends on the overall duties of the employee and the type of work performed. Please see Appendix H for more details regarding the Fleet Program Policy, including charging and home storage. CDFA encourages its programs to increase usage of ZEVs and PHEVs by rotating these types of vehicles and including them in employee practices when type of work allows. CDFA will work with DGS to address charging infrastructure and reimbursement for employees taking ZEVs home when feasible.

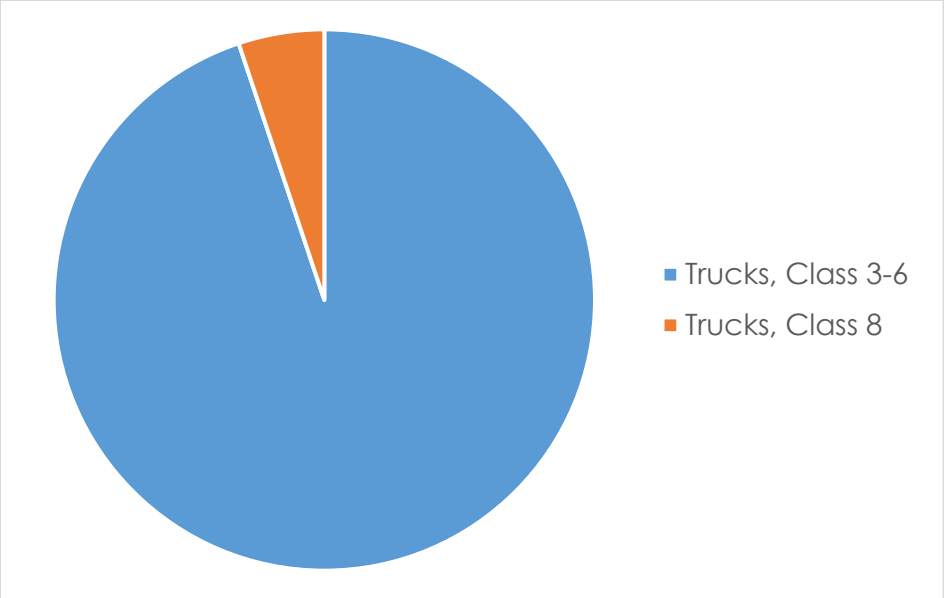
Medium and Heavy-Duty (MD/HD) Fleet Vehicles

MD vehicles are trucks widely used by those in the trucking industry. MD trucks refer to truck Classes 6-7, which have a gross vehicle weight rating range of 8,501-14,000 pounds. MD trucks are used for a variety of LD applications.

Any vehicle with a gross vehicle weight rating of 14,001 pounds or more is considered HD.

CDFA currently has 7 MD and 52 HD Vehicles.

Graph 2.3: Composition of MD/HD Vehicle Fleet Subject to the ZEV and Hybrid First Purchasing Mandate



The information in Graph 2.3 was derived from CDFA's internal data. CDFA currently has a total of 59 MD/HD vehicles (7 MD and 52 HD), including 56 trucks and 3 vans. Graph 2.3 reflects the 39 MD/HD vehicles eligible for replacement. Of these 39 vehicles, 5 percent are Class 3-6 Trucks and 95 percent are Class 8 Trucks. (No MD/HD vans are eligible to be replaced). Table 2.7 also provides the numerical values for this data.

Incorporating ZEVs into the State Fleet

CDFA will continue to work with DGS to determine feasible solutions to incorporate ZEVs and PHEVs into its fleet.

LD ZEV Adoption

Table 2.5: LD Vehicles in Department Fleet Currently Eligible for Replacement

Type	Sedans	LD vans	LD Pickups	SUVs, 5 passengers	SUVs, 7 passengers	SUVs, 8 passengers	Total
Totals	20	4	165	0	4	0	193

The information in Table 2.5 was derived from CDFA's internal data. *The number of vehicles eligible for replacement noted in Table 2.5 may be higher than the total number of vehicles to be purchased for the year due to budget constraints.

Table 2.6: Plan for LD ZEV Additions to the Department Fleet

ZEV Category	21/22	22/23	23/24	24/25
BEVs	6	1	15	17
PHEVs	0	0	30	34
Fuel Cell Vehicle	0	0	0	0
Percent of total purchases	24%	50%	45%	51%
Required ZEV Percentage	35%	40%	45%	50%
Total number of ZEVs in Fleet*	58	57	102	153

The information in Table 2.6 reflects owned vehicles per CDFA's internal data. Totals including rentals are listed below. Vehicles will be replaced with ZEVs whenever feasible. CDFA can only provide estimates and not firm values for projected purchases because it is unknown, prior to the purchasing requests, what types or how many vehicles CDFA Programs will purchase for replacement based on available funding. CDFA purchases vehicles based on Department needs on an annual basis and ensures the appropriate percentage of vehicles purchased are ZEVs. The overall number of vehicles CDFA will purchase in the future has not yet been determined. Totals will also fluctuate due to vehicle surveys.

CDFA owns 27 and rents 37 BEVs:

- Ten BEVs purchased and three acquired as LTR in FY 2014/15.
- One BEV purchased, and one LTR in FY 2015/16.
- Seven BEVs purchased in FY 2016/17.
- Four BEVs purchased in FY 2017/18.
- 29 BEV LTRs acquired in FY 2018/19.
- Five BEVs purchased in FY 2019/20.
- Two BEVs purchased and four LTR in FY 2020/21.
- Six BEVs purchased in FY 2021/22.
- One BEV purchased in FY 2022/23.
- CDFA does not yet have the number of BEVs to be purchased in FY 2023/24.

Note: LTRs count towards purchasing percentage goals.

CDFA owns 30 and rents 83 PHEVs:

- One PHEV purchased in FY 2004/05.
- Six PHEVs purchased in FY 2012/13.
- One PHEV purchased in FY 2013/14.
- Three PHEVs purchased in FY 2014/15.
- Four PHEVs purchased in FY 2015/16.
- Five PHEV LTRs acquired in FY 2016/17.
- Two PHEVs purchased in FY 2017/18.
- 74 PHEV LTRs acquired in FY 2018/19.
- Nine PHEVs purchased in FY 2019/20.
- Four PHEV LTRs acquired in FY 2020/21.
- No PHEVs were purchased in FY 2021/22.
- No PHEVs were purchased in FY 2022/23.
- CDFA does not yet have the number of PHEVs to be purchased in FY 2023/24.

CDFA has met all goals set forth by the Governor's EO B-16-12 and will continue to work with DGS (OFAM, PBMD, and RESD), and relevant contractors in meeting ZNE annual requirements such as purchasing ZEVs and integrating EVSE to support all ZEVs purchased.

Reporting Narrative for LD ZEV Additions to the Department Fleet.

A widespread shift to ZEVs is essential for California to meet its GHGe goals. Pursuant to the Governor's EO B-16-12, state departments are required to increase the number of ZEVs within their fleet. Starting in FY 2017/18 the percentage of ZEVs purchased to replace LD vehicles has and will continue to increase by 5 percent each year until it reaches 50 percent in FY 2024/25. As of January 1, 2020, CDFA purchased vehicles from authorized Original Equipment Manufacturers (OEMs) that have aligned with the California Air Resources Board (CARB). CDFA will continue to pursue the most effective ways to incorporate ZEVs into CDFA's fleet in compliance with all requirements.

CDFA primarily uses ZEVs throughout the Department for short commutes to meetings, small distances between CDFA facilities and other state buildings, and mail distribution among Sacramento locations. CDFA also uses ZEVs to perform various other responsibilities necessary to continue to function efficiently within the Department, such as occasional training, travel throughout the state to perform outreach, site visits, and inspections. CDFA has and will continue to meet all requirements set forth by the Governor's EOs and will continue to evaluate usage and additional feasible vehicle roles for ZEVs to determine viable options to increase the percentage of ZEVs in its fleet.

CDFA follows state guidelines on vehicle mileage and age thresholds for replacement; and considers operational needs and funding availability in determining the number of vehicles proposed to be acquired through its annual FAP.

Currently ZEVs are available on statewide commodity contracts in a range of LD vehicle categories. Many vehicle classes lack a ZEV alternative to purchase due to the purchasing restrictions imposed in SAM Section 4121.8, but CDFA will continue to pursue the most effective ways to incorporate ZEVs into its fleet.

CDFA requires trucks and SUVs to meet increased cargo needs, travel on rugged terrain and unpaved roads in rural parts of the state, and protect employee safety when performing vital and mandated field activities such as commodity inspections in rural and secluded areas; product sampling; and confiscation and transportation of infested/contaminated commodities using bio-controlled containment systems critical for the success of quarantines, potential eradication of new pests, and for ensuring contaminated food does not reach consumers. Sedans, vans, and similar light class vehicles do not provide adequate areas for the safe storage and transportation of sensitive and fragile inspection equipment and supplies used. Equipment, supplies (such as propane tanks) and samples must be protected, lay flat in the vehicle, and be

properly segregated from the driver to ensure employee safety. Increased complexity and diversity of both processing equipment and varieties of products being manufactured in the state require greater amounts and types of equipment for purposes of regulatory inspection than in previous years. As equipment and supply needs have expanded, insufficient cargo space is putting official sample integrity and employee safety at risk. ZEV truck options listed in the state contract do not fit program needs due to size incompatibility and demand restrictions (ZEV truck options listed in the state contract do not have enough hauling power to transport stolen calves [which can weigh between 500-1000 pounds] and the charge range is inadequate for rural locations without nearby EVSE). CDFA will continue to refer to the ZEV trucks included in the state contract and replace gas and diesel vehicles where feasible.

Planning Narrative for Integrating ZEVs into Take-Home Vehicles

CDFA has already started to integrate ZEVs into its take-home vehicle process and will increase ZEVs where feasible while considering the overall duties of the employee, range, and charging station availability. CDFA's charging policy will continue to require employees driving ZEVs with Home Storage Permits to charge overnight at their homes and/or use ChargePoint stations near their homes. The type of vehicle taken home by an employee depends on the duties of the employee and the type of work performed. CDFA encourages increased ZEV and PHEV usage by rotating these types of vehicles and including them in employee practices when type of work allows. CDFA will continue to work with DGS to address charging infrastructure, employee home charging reimbursement, and other strategies and details for increasing the ZEVs used as home storage vehicles in the next FY.

MD/HD ZEV Adoption

MD and HD Vehicles in Department Fleet currently Eligible for Replacement

Table 2.7: MD/HD Vehicles in Department Fleet Currently Eligible for Replacement

Vehicle Type	Vans, Class 2b	Vans, Class 3 & 4	Vans, Class 5 & 6	Trucks, Class 3-6	Truck, Class 8	Total
Totals Eligible for Replacement	0	0	0	37	2	39

The information in Table 2.7 was derived from CDFA's internal data.

Table 2.8: MD/HD ZEV Additions to the Department Fleet

ZEV Category	21/22	22/23	23/24	24/25	25/26
BEVs	0	0	0	0	0
PHEVs	0	0	0	0	0
Fuel Cell Vehicle	0	0	0	0	0
Percent of total purchases	0	0	0	0	0
Total number of ZEVs in Fleet	0	0	0	0	0

The number of ZEV's purchased in prior years is available from The State of California Green Fleet webpage. All CDFA ZEVs are LD vehicles. Need and feasibility will be considered when determining all future purchases.

Reporting Narrative for MD/HD ZEV Adoption

CDFA has no MD vehicles, and with towing power being a barrier in switching CDFA's HD vehicles to ZEVs, CDFA has no HD ZEVs. Replacing HD vehicles with ZEVs would require enough power to tow various types of equipment, including tractors, plows, and ATVs. Limited charging infrastructure has also been a challenge because these types of vehicles are used in rural areas where charging is not always available. CDFA will continue to review MD and HD ZEV options for feasible alternatives that meet the towing needs for HD vehicles. If no ZEVs have the towing capacity needed to replace HD vehicles, CDFA will consider ZEVs to replace LD trucks. LD trucks are most beneficial to CDFA because CDFA's fleet primarily consists of LD trucks due to the type of work CDFA employees must perform, such as inspections, pest eradication, and fuel sampling, which require the ability to transport equipment, fuel samples, and chemicals outside of the cabin of the vehicle for the safety of the driver. CDFA will continue to consider the impact of the LD/MD/HD ZEV First Purchasing Policy (SAM Section 4121.9) and the CARB Aligned Vehicle Manufacturer Purchasing Restrictions (SAM Section 4121.8) and purchase ZEVs to replace LD/MD/HD vehicles where feasible.

ZEV Public Safety Exemption

Reporting Narrative for ZEV Public Safety Exemption

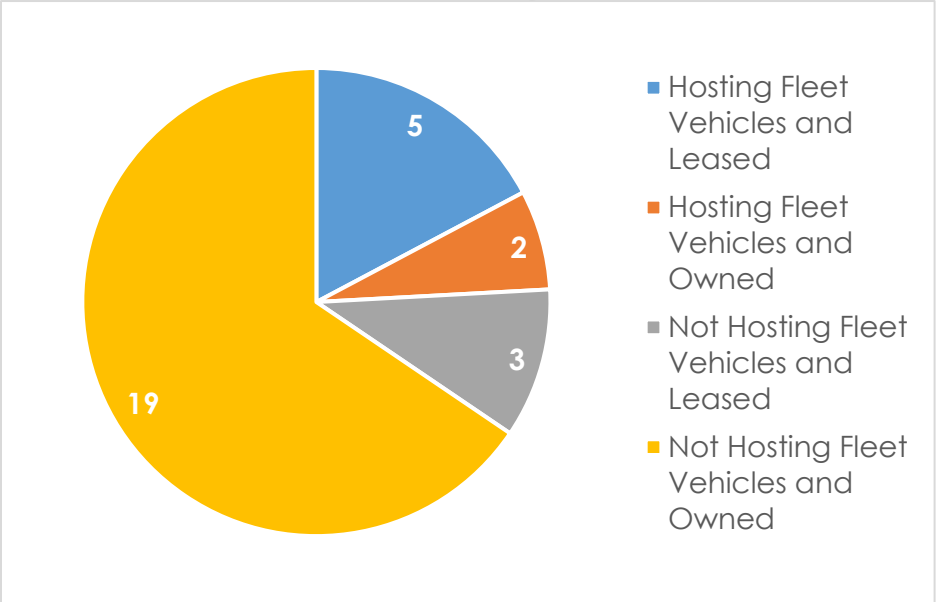
CDFA HAS NO SWORN OFFICERS.

Planning Narrative for ZEV Public Safety Exemption

CDFA HAS NO SWORN OFFICERS.

Department's Parking Facilities

Graph 2.4: Parking Facilities



The information in Graph 2.4 was derived from CDFA's internal data. Parking includes mixed parking spaces available for employees and members of the public.

Reporting Narrative on Parking Facilities

CDFA's GHGe reduction plan focuses on leased and owned facilities large enough for feasible GHGe reductions. CDFA will increase the number of EVSE to support the ZEVs needed to reduce CDFA's GHGe. EVSE are categorized by the type of charger; Level 1 (L1) chargers are the slowest (120-volt outlets accessible to vehicles). Level 2 (L2) chargers are pedestal EVSE with increased charging speed (240-volt outlets or vehicle chargers). Level 3 (L3) chargers are rapid chargers (480-volt fast chargers).

CDFA owns 21 facilities (three over 10,000 Ft^2):

- Six facilities have parking spaces (293 spaces total).
- Two host fleet vehicles and have charging ports available for vehicles (5 ports total).
    - Three L1 charging ports.
    - Two L2 charging ports.

- CDFA worked with DGS in acquiring and installing two dual EVSE – one at its Meadowview Road Complex (one dual charger), and one at its Florin-Perkins facility (one dual charger).

CDFA leases eight facilities over 10,000 Ft^2:

- All eight facilities have parking spaces (633 spaces total).
- Five host fleet vehicles and have charging ports available for vehicles (59 ports total).
    - 45 L1 charging ports.
    - 14 L2 charging ports.
- CDFA previously had 57 more charging ports, but they were at leased facilities CDFA no longer occupies. CDFA will work towards adding additional EVSE where feasible.

The 21 CDFA-owned facilities include 16 Border Protection Stations and five other buildings which function as laboratories, greenhouses, or fruit and vegetable quality control centers.

The Border Protection Stations are small structures on freeways and highways on California's Oregon, Nevada, and Arizona borders used as checkpoints to stop the public from spreading insects and plant diseases throughout California, which could negatively impact California's agriculture industry and economy. These facilities do not have much capacity for impacting GHGe and generally do not have a large amount of space designated specifically for parking. These geographical locations tend to be impractical to use BEVs.

The five CDFA-owned non-Border Protection Station facilities (Anaheim Laboratory, San Bernardino Veterinary Laboratory, Turlock Veterinary Laboratory, the Meadowview Road Complex, and the GWSS – Arvin Field Station [greenhouse for GWSS]) are more practical for impacting GHGe, as they contain more parking spaces and more Ft^2. Two of CDFA's laboratories have approximately 2,000 Ft^2 and the third has 10,000 Ft^2, one floor each, and 23-38 parking spaces each. CDFA's Meadowview Road Complex has 101,238 Ft^2, two floors, and 196 parking spaces. CDFA's GWSS – Arvin Field Station has 14,300 Ft^2 and five parking spaces.

Since 2015, CDFA has and will continue to analyze its state-owned facilities for EVSE parking capacity to determine where installation will be most cost-effective and appropriate, complete installations where applicable, and

complete the EVSE Infrastructure Plan on an annual basis per EO B-16-12 and DGS Management Memo (MM) 16-07.

The percentage of ZEVs In CDFA's fleet will gradually increase every year to meet the requirements set forth by the Governor's EO. As the number of ZEVs increases, CDFA plans to work with DGS RESD in planning and implementing the installation of more EVSEs, where feasible.

Reporting on Status of EVSE Projects

Table 2.9: High Priority EVSE Projects

Facility Name	Total Parking Spaces	Existing L1 Ports (2022)	Existing L2 Ports (2022)	Existing L3 Ports (2022)	Total Ports (2022)	EV Charging Ports Needed by 2026
Anaheim Laboratory	38	0	0	0	0	2
Meadowview Road Complex	221	2	2	0	4	7
San Bernardino Veterinary Laboratory	30	0	0	0	0	2
Turlock Veterinary Laboratory	23	0	0	0	0	1
Total	312	2	2	0	4	12

The information in Table 2.9 was derived from CDFA's internal data. EVSE are categorized by the type of charger; L1 is slowest, L2 is a pedestal EVSE with increased charging speed, and L3 is a fast charger. The amounts listed in the right column of Table 2.9 are 5 percent of the parking spaces for each facility, per DGS requirements. The total number of charging ports needed for the Meadowview Road Complex was reduced from 11 to seven because it already has four EVSE. Although additional charging ports are needed to meet 5 percent for each facility, CDFA has exceeded the requirement when comparing the total parking spaces for all facilities (CDFA has charging ports for 7 percent of all parking areas for CDFA-owned facilities and leased facilities over 10,000 Ft^2).

EV Charging Site Assessments

There were no L1 or L2 EVSE prior to 2015. Starting in 2015, CDFA developed a GHGe reduction plan focusing on leased and owned facilities large enough for feasible GHGe reductions. CDFA analyzed its state-owned facilities for EVSE parking capacity to determine where installation would be most cost-effective and appropriate and completed an EVSE Infrastructure Plan every year since 2015, per MM 16-07. CDFA has 21 owned facilities, two of the owned facilities have EVSE (four ports at the Meadowview Road Complex and one port at the Needles Border Protection Station). CDFA will continue to work with DGS Office of Sustainability on plans to install EVSE for the additional ports needed and will evaluate the locations for these EVSE. The percentage of ZEVs in CDFA's fleet will gradually increase every year to meet the requirements set forth by DGS, OFAM. As the number of ZEVs increases, CDFA will need EVSE to support them. The EVSE chargers at the CDFA-owned facilities will be the property of CDFA. EVSE chargers located at leased facilities may be owned by DGS, CDFA or the facility owned as outlined in agreed upon lease agreement.

Status of current and upcoming projects:

- CDFA is working with DGS to install one dual charger (two ports) for the Anaheim Laboratory for a total of two single panels and two dual chargers (four ports).
- CDFA is working with DGS to install two dual chargers (four ports) at CDFA's Meadowview Road Complex and will continue to work towards installing one more dual charger (two ports) for a total of five dual chargers (10 ports).
- CDFA is in the planning and development phase of adding one dual charger (two ports) for the San Bernardino Veterinary Laboratory.
- CDFA is in the planning and development phase of adding one dual charger (two ports) for the Turlock Veterinary Laboratory.

Reporting on 2022 Facility Site and Infrastructure Assessments

EVSE REQUIREMENTS ACHIEVED.

Per the ZEV Action Plan, L1 or L2 chargers should make up approximately 5 percent of all CDFA parking areas. CDFA has L1 and L2 charging ports for 7 percent of all parking areas for owned facilities and leased facilities over 10,000 Ft^2 (64 charging ports for 926 spaces). 75 percent of the 64 ports are L1 charging

ports and 25 percent are L2 charging ports (48 L1 ports, 16 L2 ports). To meet DGS recommendations, and in consideration of the nature of CDFA's fleet operations and the length of stay for visitors and employees, CDFA has determined it is appropriate to invest in L2 chargers for all new installations.

Based on estimates of future ZEV fleet purchases and a count of visitor and workplace parking spaces, it has been determined that CDFA has exceeded the EVSE goals for leased and total parking spaces; but CDFA will need 12 more L2 charging spaces at owned facilities to meet the goal of EVSE for 5 percent of parking areas at owned facilities.

Table 2.10: EV Charging Infrastructure Site Assessments Conducted

Facility Name	L1 EVSE Project Assessments	L2 EVSE Project Assessments	L3 EVSE Project Assessments	Entity that Conducted the Site Assessment
Anaheim Laboratory	0	1	0	CDFA
Meadowview Road Complex	0	3	0	CDFA
San Bernardino Veterinary Laboratory	0	1	0	CDFA
Turlock Veterinary Laboratory	0	1	0	CDFA
Total	0	6	0	CDFA

Site Assessments are performed to establish the cost and feasibility of installing needed EVSE. Table 2.10 lists the facilities that should have additional EVSE installed. All EVSE provide dual charging (a dual charger is a charging unit that has two ports so it can charge two vehicles at the same time). CDFA is proposing an addition of six dual chargers (12 ports) at the locations listed in Table 2.10.

Planning Narrative on EVSE Construction Plan

EVSE NEEDS ACHIEVED.

CDFA will continue to work with DGS, Office of Sustainability, Clean Transportation Unit, to ensure design, bid, construction, and activation of EVSE to support increase in fleet and workplace BEVs and PHEVs required to meet the Governor's EOs and other requirements impacting fleet purchases.

On-going EVSE Charging Operations and Maintenance

Public EV Charging Policies

Reporting Narrative on Public EV Charging Policies

PUBLIC CHARGING POLICY NOT REQUIRED

Planning Narrative on Public EV Charging Policies

PUBLIC CHARGING POLICY NOT REQUIRED

Employee EV Charging Policies

Reporting Narrative on Employee EV Charging Policies

CDFA will continue to keep pace with requirements to reduce GHGe and other negative impacts on the environment. As CDFA purchases more BEVs and PHEVs, it will install the EVSE infrastructure necessary to support these additional ZEVs.

There are service plan contracts in place for Department-owned EVSE. CDFA has been working closely with DGS RESD to ensure all aspects of installation and maintenance are addressed at CDFA leased and owned facilities. For every new site search and construction project, CDFA is working with DGS RESD to incorporate EVSE into the plans and DGS, Office of Sustainability, Transportation Unit to purchase EVSE. CDFA will also pursue Sacramento Municipal Utilities District (SMUD), ChargePoint, and other DGS recommended funding applicable to the locations of the EVSE.

There is currently no cost recovery program for employee charging. CDFA's charging time-limit and cost recovery policies state there is a 4-hour limit for charging, and state vehicles take priority. Employee charging does not impact CDFA's overall energy goals. Energy use for employee EV charging, including the total employee charging energy use for CDFA, is not tracked. CDFA will evaluate the feasibility of tracking EVSE energy used in the future. CDFA does not manage fleet charging during Flex Alerts and peak time.

Planning Narrative on Employee EV Charging Policies

The CDFA employee EV charging policy is included in the Fleet Program Policy. Reference Appendix H for details.

Fleet EV Charging Policies

The CDFA fleet EV charging policy is a component of the Fleet Program Policy. Reference Appendix H for details.

Reporting Narrative for Fleet EV Charging

CDFA's telematics will collect and report to DGS its fleet EVSE use data. CDFA does not track energy use for EV fleet charging, rather it uses DGS' formula based on the miles driven versus amount of fuel reported on its WEX account. CDFA's fleet uses multiple sources to charge vehicles (wall unit charging, ChargePoint charging stations, Tesla superchargers and BTC Power chargers) and does not capture this information as one singular number.

Planning Narrative for Fleet EV Charging

CDFA will continue to make improvements to its fleet EV charging policy as needed. Reference Appendix H for CDFA's current policy.

Hydrogen Fueling Infrastructure

Planning Narrative for Hydrogen Fueling Infrastructure

NO HYDROGEN FUEL PLANS

CDFA determined that installation of hydrogen fueling infrastructure at Department facilities is not an efficient use of state funds to reduce GHGe, because CDFA does not own hydrogen fueled vehicles. CDFA has purchased ethanol as an alternate fuel type and will continue to pursue alternate options to better serve the reduction of GHGe.

CHAPTER 3 – ENERGY

Department Mission and Building Infrastructure

Reporting Narrative for Department Mission and Building Infrastructure:

CDFA's mission is to serve the citizens of California by promoting and protecting a safe, healthy food supply, and enhancing local and global agricultural trade through efficient management, innovation, and sound science, with a commitment to environmental stewardship.

CDFA's 21 owned facilities include Border Protection Stations, field stations, greenhouses, warehouses, offices, and laboratories, which total 160,808 Ft^2 (space owned per DGS, including buildings, landscaping, parking, etc.). CDFA also leases eight facilities over 10,000 Ft^2 which include greenhouses, warehouses, offices, and laboratories, which total 244,735 Ft^2. This 405,543 Ft^2 is utilized to achieve CDFA's mission, facilitating programs and services delivered to meet the needs for the growing local and global food and agricultural system.

To meet the Governor's sustainability goals and the EOs implementing those goals, CDFA has reduced energy purchased (electricity, natural gas, and propane) and is working with DGS to meet the SAM 1815-31 requirement of 50 percent ZNE by 2025 and the SB 1020 requirement of 100 percent renewable electricity by December 31, 2035.

Total Purchased Energy

Units of energy are measured in thousand British thermal units (kBTU), Kilowatt Hours (kWh), and Thermal Units (Therms).

Table 3.1: Total Purchased Energy 2021 and 2022

Purchased Energy	2003 Baseline Quantity	Unit	2021 Quantity	2022 Quantity	Percent Qty. Change 2003-22
Electricity	98,965,190	kWh	7,380,643	7,339,188	-93%
Less EV Charging	0	kWh	1,817	2,453	--
Natural Gas	3,596,095	Therms	157,480	129,114	-96%
Diesel	720,109	kBTU	601,266	694,916	-3%
TOTALS	697,998,847	kBTU Site	48,910,804	45,986,883	-93%

The information in Table 3.1 includes amounts used by CDFA's facilities. There is no propane, fuel oil, steam, or chilled water used for owned facilities. The information in Table 3.1 is from CDFA's internal data, DGS, and Energy Star. EVSE charging use is tracked with ChargePoint and Tesla billing. Each vendor bills CDFA monthly and provides kWh per billing period. CDFA has reduced energy use where feasible, including reducing the total number of facilities utilized by switching to a remote-based work model. The planning narrative for Table 3.6 includes additional details on CDFA's steps in energy use reduction.

Department Energy Use

Reporting High Energy Use Buildings

Table 3.2: Facilities with Largest 2022 Energy Consumption

Building Name	Floor Area (Ft^2)	Site Energy (kBTU)	Source Energy (kBTU)	Source EUI (kBTU/Ft^2-yr)
Blythe Border Protection Station	620	307,265	967,886	1,561
GWSS - Arvin Field Station	800 (2,000 total)	376,544	1,186,114	1,483 (593)
Hornbrook Border Protection Station	784	463,910	983,480	1,254
Meadowview Road Complex	101,238	26,849,386	65,396,493	646
Mountain Pass Border Protection Station	17,500 (19,000 total)	698,819	2,201,278	125 (116)
Needles Border Protection Station	497	363,350	1,144,551	2,303
San Bernardino Veterinary Laboratory	1,700	5,584,713	12,792,829	7,525
Smith River Border Protection Station	550	234,996	498,188	906
Truckee Border Protection Station	1,308	794,952	2,504,099	1,914
Turlock Veterinary Laboratory	800 (2,765 total)	1,015,765	1,830,791	2,288 (662)
Total for Buildings in this Table	125,797 (130,462 total)	36,689,700	89,505,709	---
Total for all CDFA-Owned Buildings	148,547 (160,808 total)	45,291,967	110,316,704	---
Percent of Totals	85% (81%)	81%	81%	---

The energy information in Table 3.2 is from CDFA's internal data, DGS, and Energy Star. Values in parenthesis' account for the total area/lot CDFA owns per DGS (when larger than estimates through Google maps measurements). The total space owned per DGS includes buildings, landscaping, parking, etc. The Energy Use Intensity (EUI) kBTU/ Ft^2 listed only includes the Ft^2 for the facilities

reporting energy use which differs from the total Ft^2 of space for all leased and owned facilities. All site energy comes from the same utility source.

CDFA has been working with CalEPA and DGS' Office of Sustainability to determine the best course of action for energy reduction. CDFA has performed an internal energy use audit and will work with utility companies in performing more in-depth energy audits. CDFA has and will continue to evaluate incentive programs which may supplement project costs. CDFA continues to pursue energy reduction options which include, but may not be limited to, solar panel installation, energy audits, Demand Response Program (DRP) for additional locations, and/or additional purchased renewable energy. CDFA is also developing plans for increasing the use of current strategies in the future for additional GHGe reductions. CDFA is working with DGS in meeting ZNE requirements through new construction projects.

Energy Efficiency Solutions for Largest Energy Using Buildings

Planning Outline PO3a: Planning for Buildings with Largest Energy Use

Building Name	Proposed Energy Efficiency Solutions
Turlock Veterinary Laboratory (Solar Field)	Solar field to produce more electricity than the total used for all CDFA-owned facilities.

The Planning Outline PO3a details CDFA's plan to install a new solar field that will generate enough energy to cover the largest energy use and all other electricity for all CDFA's owned facilities. Although the solar field at the new Turlock Veterinary Laboratory will address all energy generation required for the Department, CDFA is also evaluating the feasibility of additional smaller solar projects at the Meadowview Road Complex (the facility with the largest energy use in Table 3.2) and other CDFA owned facilities to impact CDFA's energy use reduction directly at each location. These additional smaller projects are not listed in the Planning Outline PO3a because the solar field at the Turlock Veterinary Laboratory is the only project in the planning and development phase.

Narrative for Building Energy Efficiency

CDFA plans to achieve all ZNE goals and follow other sustainability efforts with the new Turlock Veterinary Laboratory and solar field. A Power Purchase Agreement for solar power was established for this project in 2020. The acquisition was completed in March 2020. The project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field.

- The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025.

- The solar field is in the planning and development phase. Construction is projected to begin by 2025.

Zero Net Energy (ZNE)

Reporting on Existing Building ZNE

Table 3.3 ZNE Buildings

Status of ZNE Buildings	Number of Buildings	Floor Area (Ft^2)	Percent of Building Area
Buildings Completed and Verified	0	0	0
Building in Design or Under Construction	1	35,000	32%*
Building Proposed for Before 2025 (concept phase or earlier)	1	7,420	7%*
Additional Existing Building Area within 15% of ZNE target**	0	0	0
Totals for ZNE Buildings by 2025	2	42,420	107%
Totals for All CDFA-Owned Buildings by 2025	21	196,450	107%
Percent ZNE by 2025	107%*	107%*	107%

* Only two ZNE buildings are included in Table 3.3 (the new Turlock Veterinary Laboratory is included under design/construction and the Needles Border Protection Station is included under proposed but not yet in design). Although the new Turlock Veterinary Laboratory will only be 18 percent of the total area for CDFA-owned buildings (100/196,450 Ft^2 [total building area for CDFA-owned facilities in 2025] x 35,000 Ft^2 [new Turlock Veterinary Laboratory] = 18 percent), the energy generated from the solar field connected to the Turlock Veterinary Laboratory will be 100 percent of the electricity used for CDFA owned facilities. Since the new Turlock Veterinary Laboratory will generate 100 percent of the electricity CDFA owned facilities use, the energy the Needles Border Protection Station generates (Seven percent of 2025 building area) will allow CDFA to generate more energy than CDFA owned facilities use.

**ZNE target milestones, set forth by SAM 1815.31, include: New construction, major renovations, and build-to-suit leases beginning design after 10/23/2017 (for all state agencies) must be ZNE. Fifty percent of the total existing building area for all state agencies must be ZNE by 2025 and meet energy efficiency targets referencing energy use intensity. (A building is considered ZNE when, on a source energy basis, the actual annual consumed energy is less than or equal to the combined on-site and long-term off-site renewable energy generated.)

CDFA will continue to work with DGS to ensure all ZNE buildings will meet all milestones, including energy efficiency and energy use intensity targets.

Planning Narrative of Table 3.3: ZNE Buildings

To reach GHGe reduction goals and ZNE goals, CDFA plans to install a field of solar panels at CDFA's Turlock Veterinary Laboratory. In 2018, CDFA began working with DGS on a plan to create a solar field at the new Turlock Veterinary Laboratory. The land was acquired in November 2019, the conceptual plan for a Power Purchase Agreement for solar power was established in 2020. The acquisition was completed in March 2020. The project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field. The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025. The solar field is in the planning and development phase. Construction is projected to begin by 2025. CDFA's ZNE goals and other sustainability efforts will be pursued for this location. CDFA will develop additional planning to integrate climate change into departmental infrastructure. CDFA will consult with DGS' Office of Sustainability regarding best practices from other departments that have integrated climate change into departmental planning. CDFA will determine the best course of action to prepare for projected climate change effects impacting CDFA facilities.

Total building area by 2025:

148,547Ft^2	- The total area for building structures at CDFA-owned facilities as of the end of 2022 (per Google maps): Approximately 148,547 Ft^2 CDFA owned building structures + parking, landscaping, etc. = 160,808 Ft^2 total area for CDFA owned facilities (per DGS).
- 800 Ft^2	- The current Turlock Veterinary Laboratory (per Google maps): 800 Ft^2 Turlock building structure + parking, walkways, etc. = 2,765 Ft^2 total area for the facility (per DGS).
+ 35,000 Ft^2	- The new Turlock Veterinary Laboratory includes: 35,000 Ft^2 single story building + walkways, curbs, gutters, signs, landscaping, fencing, gates, trash enclosure, storage outbuilding, animal holding pens, site lighting, etc. = 7.5 acres (326,700 Ft^2) total for the Laboratory building project + 9 acres (392,040 Ft^2) for the solar field project + 10.74 acres (467,834 Ft^2) unutilized land (utilization still to be determined) = 27.24 acres (1,186,574 Ft^2) total lot size (per DGS).

- 497 Ft^2	- The current Needles Border Protection Station = 497 Ft^2 total area per DGS. (Google maps quote exceeds DGS amount due to the nature of approximation so using DGS amount as structure size.)
+ 7,420 Ft^2	- The new Needles Border Protection Station includes: 7,420 Ft^2 of buildings (4,200 Ft^2 for a vehicle inspection building, 2,900 Ft^2 for a truck inspection building, 320 Ft^2 for 8 inspection booths) + a well pump enclosure, a trash/recycling enclosure, an outdoor staff break area, 3 vehicle inspection lanes, 9 truck lanes, widening the bridge, an employee access road, retaining walls, grading, paving, parking, landscaping, a generator, incinerator, an apiary spray area, watercraft washing area, a wastewater treatment system, tanks, a distribution system, building pads, trailer hookups, and traffic control measures = 50 acres (2,178,000 $Ft^{2)}$ total lot size (per DGS).
- 620 Ft^2	- The current Blythe Border Protection Station = 620 Ft^2 total area per DGS. (Google maps quote exceeds DGS amount due to the nature of approximation so using DGS amount as structure size.)
+ 7,400 Ft^2	- The new Blythe Border Protection Station includes: 7,400 Ft^2 of buildings (4,200 Ft^2 vehicle inspection building, 2,900 Ft^2 truck inspection building, 300 Ft^2 for seven kiosks for CDFA inspectors) + 30,050 Ft^2 of canopies (7,440 Ft^2 five-lane vehicle canopy, 6,200 Ft^2 truck inspection lane canopy, 9,660 Ft^2 secondary inspections lane canopy, 6,750 Ft^2 solar canopy covering 28 parking stalls, [Parking includes: 28 parking stalls north of truck inspection lane, 6 parking stalls west of main vehicle inspection building, 1-2 emergency parking spaces]) + ancillary components (ranging from 300-900 Ft^2 for trash, emergency generator, transformer, incinerator, employee break area, etc.), landscaping, windbreak, and additional shaded break area = 35 acres (1,524,600 Ft^2) total. (Pending evaluation – may be exempt from ZNE requirements.)
= 196,450 Ft^2	- The total area for building structures at CDFA-owned facilities after facilities replaced (per Google maps): Approximately 196,450 Ft^2 CDFA owned building structures + parking, pathways, landscaping, etc. = 5,046,100 Ft2 total area for CDFA owned facilities (per DGS):
	160,808 Ft^2 Total area for CDFA owned facilities.

– 2,765 Ft^2	Total area for the current Turlock Veterinary Laboratory.
+ 1,186,574 Ft^2	Total lot size for the new Turlock Veterinary Laboratory & solar field (326,700 Ft^2 total for just the Laboratory building project).
- 497 Ft^2	For the current Needles Border Protection Station.
+ 2,178,000 Ft^2	For the new Needles Border Protection Station.
- 620 Ft^2	For the current Blythe Border Protection Station (544,326 Ft^2 if only the Laboratory building project is included for the new Turlock Veterinary Laboratory and excluding the solar project and unutilized land at the new Turlock Veterinary Laboratory).
+ 1,524,600 Ft^2	for the new Blythe Border Protection Station.
= 5,046,100 Ft^2	Total area for CDFA owned facilities after facilities replaced (4,186,226 Ft^2 if only the Laboratory building project is included for the new Turlock Veterinary Laboratory and excluding the solar project and unutilized land at the new Turlock Veterinary Laboratory).

Estimates reflect that the Turlock Veterinary Laboratory's solar field will exceed renewable energy requirements for ZNE, producing more electricity than the total used for all CDFA-owned facilities: Solar fields produce an average of approximately 820,000 kWh per year per acre. Since the new solar field at the Turlock Veterinary Laboratory will be built on 9 acres, CDFA estimates this solar field will generate approximately 7,380,000 kWh per year. CDFA estimates when the Turlock Veterinary Laboratory project is complete, all electricity used for CDFA-owned facilities will be approximately 7,160,000 kWh per year (reduced by over 100,000 kWh annually because energy use for the new Turlock Veterinary Laboratory is projected at 566 kWh per year; over 100,000 kWh less than the current Turlock Veterinary Laboratory).

New Construction Exceeds Title 24 by 15 Percent

Table 3.4: New Building Construction Exceeding Title 24 by 15 Percent

New Buildings Exceeding Title 24 by 15 Percent	Number of Buildings	Floor Area (Ft^2)
Completed Since July 2012	1 (Mountain Pass Border Protection Station -completed in 2018)	17,500
Under Design or Construction	1 (Turlock Veterinary Laboratory)	35,000
Proposed Before 2025	2 (Blythe Border Protection Station [7,400 Ft^2] and Needles Border Protection Station [7,420 Ft^2])	14,820

The information in Table 3.4 only includes the buildings areas, not the total construction area, per CDFA's internal data and Google Maps. Per the Roadmap reporting parameters, updates are as of the end of 2022.

Narrative of Table 3.4 New Building Construction Exceeding Title 24 by 15 Percent

CDFA follows requirements for all new state buildings and major renovations beginning design after July 1, 2012, to exceed the current California Code of Regulations (CCR) Title 24, energy requirements by 15 percent or more.

Proposed Projects

- Blythe Border Protection Station – 7,400 Ft^2 of buildings (4,200 Ft^2 vehicle inspection building, 2,900 Ft^2 truck inspection building, 300 Ft^2 for seven kiosks for CDFA inspectors) + 30,050 Ft^2 of canopies (7,440 Ft^2 five-lane vehicle canopy, 6,200 Ft^2 truck inspection lane canopy, 9,660 Ft^2 secondary inspections lane canopy, 6,750 Ft^2 solar canopy covering 28 parking stalls, [Parking includes: 28 parking stalls north of truck inspection lane, 6 parking stalls west of main vehicle inspection building, 1-2 emergency parking spaces]) + ancillary components (ranging from 300-900 Ft^2 for trash, emergency generator, transformer, incinerator, employee break area, etc.), landscaping, windbreak, and additional shaded break area = 35 acres (1,524,600 Ft^2) total. DGS is working with CalTrans on approval for the design and location of the facility before a site is acquired. Construction is projected to begin by 2025.
- Needles Border Protection Station – 7,420 Ft^2 of buildings (4,200 Ft^2 for a vehicle inspection building, 2,900 Ft^2 for a truck inspection

building, 320 Ft^2 for 8 inspection booths) + a well pump enclosure, a trash/recycling enclosure, an outdoor staff break area, 3 vehicle inspection lanes, 9 truck lanes, widening the bridge, an employee access road, retaining walls, grading, paving, parking, landscaping, a generator, incinerator, an apiary spray area, watercraft washing area, a wastewater treatment system, tanks, a distribution system, building pads, trailer hookups, and traffic control measures = 50 acres (2,178,000 Ft$^{2)}$ total lot size (per DGS). DGS performed an initial study for a new facility for the Needles Border Protection Station. CDFA received acquisition/preliminary plans funding for FY 2021-22. The initial study and project concept phase have been completed. This project is in the acquisition phase. Construction is projected to begin by 2028.

Project Under Planning and Development / Construction

- Turlock Veterinary Laboratory – 35,000 Ft^2 single story building + walkways, curbs, gutters, signs, landscaping, fencing, gates, trash enclosure, storage outbuilding, animal holding pens, site lighting, etc. = 7.5 acres (326,700 Ft^2) total for the Laboratory building project + 9 acres (392,040 Ft^2) for the solar field project + 10.74 acres (467,834 Ft^2) unutilized land (utilization still to be determined) = 27.24 acres (1,186,574 Ft^2) total lot size (per DGS). The acquisition was completed in March 2020. The project was divided into two pieces: The construction of the new Turlock Veterinary Laboratory and the construction of the solar field.
    - The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025.
    - The solar field is in the planning and development phase. ZNE and other sustainability efforts will be pursued for this CDFA location. Construction is projected to begin by 2025.

Completed Project

- Mountain Pass Border Protection Station (completed in 2018 to replace Yermo Border Protection Station) – 17,500 Ft^2 of buildings/structures + 1,500 Ft^2 of area outside the building (lanes, parking, and dividers, etc.) = 19,000 Ft^2 total lot size. CDFA informed CalTrans of the updates to the CCR Title 24 requirements (building code updates, including the new energy requirements). CalTrans met all requirements on behalf of CDFA and completed this new Border Protection Station in the Fall of 2018.

Purchased / Completed

- Anaheim Laboratory – 9,294 Ft^2: CDFA acquired the building in 2020-21. (Size originally estimated at 10,000 Ft^2. Area listed did not include parking or landscaping.)

CDFA will continue to work with DGS to ensure that all new buildings and major renovations meet energy requirements.

Existing Buildings Energy Efficiency

Reporting on Energy Efficiency for Existing Buildings

Table 3.5: Department-Wide Energy Trends (if available)

Year	Owned Area (ft^2)	Total Source kBTU Consumption	Department Average Source EUI (Source kBTU/sq. ft.)
Baseline Year 2003	137,892	697,998,847	5,062
2013	148,857	44,418,581	298
2014	148,857	44,248,556	297
2015	134,731	43,622,500	324
2016	134,731	39,802,302	295
2017	134,731	39,323,112	292
2018	153,731	39,310,235	256
2019	150,808	42,170,082	280
2020	160,808	41,299,396	257
2021	160,808	48,910,804	304
2022	160,808	45,986,883	286
Percent Change 2010-2020	17%	-94%	-95%

The information in Table 3.5 is from CDFA's internal historical data and DGS. The area measurements are the total space owned per DGS (including buildings, landscaping, parking, etc.). CDFA has reduced energy use where feasible, including reducing the total number of facilities utilized by switching to a remote-based work model.

Narrative for Table 3.5: Department-Wide Energy Trends

CDFA continues to pursue options in reaching the future goals set forth in the Governor's Eos. Some strategies CDFA is considering employing include solar panels, energy audits, DRP for additional locations, and/or additional purchased

renewable energy. CDFA is also developing plans for increased use of the above strategies in the future for additional GHGe reductions.

CDFA reduced energy use and GHGe at its state-owned facilities by partnering with SMUD on various projects, including participating in energy conservation projects at CDFA's Center for Analytical Chemistry Laboratory in Sacramento and participating in SMUD's Energy Rebate Program for the replacement of HVAC chillers.

CDFA partnered with the statewide energy conservation campaign to reduce energy use in 2017. CDFA continues with email reminders during peak energy use every year, 2017 to present. CDFA releases reminders to all employees, encouraging all employees to reduce energy consumption by using power strips, unplugging charging devices once fully charged, and turning off the lights when room(s) are not in use.

Energy Savings Projects

Table 3.6: Summary of Energy Savings Projects 2021-2022

Year Funded	Estimated Energy Savings (kBTU/yr.)	Floor Area Retrofit (Ft^2)	Percent of Department Floor Area
2021	0	0	0
2022	0	0	0
Total	0	0	0

CDFA does not have the means to differentiate kBTU impacts of individual savings efforts. Reduction efforts noted below.

Planning Narrative for Table 3.6 Energy Savings Projects 2021-2022

CDFA has made various efforts towards energy conservation, such as tracking energy use, decreasing load use, increasing employee awareness, participating in DRPs and conservation campaigns, and allowing staff to work remotely when operationally feasible.

CDFA's Steps in Energy Use Reduction Include:

- Tracked energy use: CDFA has performed an internal energy use audit and reported energy use in EnergyStar and CRIS every year since 2012.

- CDFA has and will continue to work with utility companies to perform energy audits and replace building HVAC equipment as needed.

- Decreased load use: CDFA has decreased load use through various methods, including:

    - Decreased air conditioning use in server rooms, setting the temperature for data centers to the base maximum temperature allowed by equipment manufacturers.

    - Reduced its use of standalone Windows servers from 60 prior to 2010, to approximately five, by consolidating and virtualizing the systems and functions they served into two virtualized multi-blade chassis.

    - Set all computers, copiers, and printers to utilize their Energy Saver mode when inactive.

    - Began using the Verdiem Surveyor power management software in 2008 to control and reduce power usage by desktop computers.

    - Purchased Energy Star rated equipment where practical.

    - Removed all vending machines and refrigerators that were not Energy Star rated.

    - Set HVAC building controls for a two-degree fluctuation.

    - Replaced and repaired HVAC where applicable.

    - Partnered with SMUD on various projects at CDFA's Center for Analytical Chemistry Laboratory in Sacramento. Projects included shade trees planted around the facility and participation in SMUD's Energy Rebate Program for the replacement of the facility's HVAC chillers.

    - Worked with CalEPA and DGS' Office of Sustainability to determine the best course of action for energy reduction. CDFA has and will continue to evaluate incentive programs which may supplement project costs. CDFA continues to pursue energy reduction options which include, but may not be limited to, solar panel installation, energy audits, DRP for additional locations, and/or additional purchased renewable

energy. CDFA is working with DGS and developing plans for increasing the use of current strategies in the future for additional GHGe reductions and ZNE efforts.

- Increased employee awareness: CDFA encourages employees to reduce energy use by turning off lights when not in use, using power strips, and unplugging devices from outlets when fully charged. CDFA issues notices to employees to reduce energy use during extreme fire, storm, and heat events while maintaining a comfortable office temperature by:
    - Turning off all unnecessary lights; especially in unused spaces. Only utilizing interior suite and office lighting for areas occupied by staff; turning off interior lights for areas not being used by staff where applicable; and at the end of the workday turning off the interior suite and office lights.
    - When leaving the office or when not in use, turning off computers, screens, appliances, and equipment (printers, copiers, etc.) or ensuring sleep mode or power management settings are enabled, so the equipment goes to sleep.
    - Setting thermostat at 78°F or higher, if possible (at home and work).
    - Using fans instead of air conditioning.
    - Closing all doors, blinds, curtains, and other window coverings where possible to reduce the temperature in the office and limit the demand on the HVAC system, allowing the HVAC system to operate efficiently. The HVAC systems operate in zones, so opening doors can result in the HVAC systems using additional energy to compensate for the larger areas.
    - Reducing the frequency of exiting and entering the building or office.
    - Using major appliances during off hours (after 9 pm).
- Participated in DRPs: Prior to 2020, CDFA enrolled all facilities over 10,000 Ft^2 in automated DRPs provided by utilities to reduce the stress on the grid and high electricity prices by curtailing, or reducing, the demand for electricity during certain time periods. CDFA will continue to work with utilities to maintain DRPs for 100 percent of owned facilities over 10,000 Ft^2.

- Participated in conservation campaign: In 2017, CDFA partnered with the State of California Energy Commission, participating in the statewide energy conservation campaign to reduce energy use. CDFA encouraged all employees to reduce energy consumption by powering off computers every night, using power strips, unplugging charging devices once fully charged, and turning off the lights when room(s) are not in use. The Cal Eclipse "One Thing for the Sun" campaign encouraged employees to reduce energy use leading up to and during the solar eclipse.

- Participated in furloughs and teleworking: In 2008-2013, CDFA participated in furloughs, reducing the number of days staff was onsite. In 2020, CDFA moved to a business model that permanently integrates more remote-based employment. This reduction of staff onsite impacted the energy used at each location, allowed CDFA to downsize the total office space and equipment needed for operation, and limited the number of breakrooms and employee equipment needed, reducing energy demand and use. CDFA will continue to use the remote-based employment model in the future wherever operationally feasible.

- Worked with DGS to install solar field (2013-2015 and 2018-present):

    - Previous (Meadowview Road Complex Solar Field) plan: In 2013-2015 CDFA worked with DGS in developing a project plan for the installation of solar panels at the Meadowview Road Complex (101,238 Ft^2 project generating 5,182,755.10 kWh) but instead entered into an agreement with USDA to have a laboratory built on the land.

    - Current (Turlock Veterinary Laboratory and Solar Field) plan: In 2018, CDFA began working with DGS on a plan to create a solar field at the new Turlock Veterinary Laboratory location (27.24 acres [1,186,574 Ft^2] including 9 acres [392,040 Ft^2] for a solar field generating 7,380,000 kWh). The acquisition was completed in March 2020. The project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field.

        - The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025.

- The solar field is in the planning and development phase. Construction is projected to begin by 2025. CDFA's anticipates producing electricity equivalent to the electricity used for all CDFA-owned facilities with this solar field; meeting 100 percent of the ZNE goal.

Energy Audits/Surveys Completed or In-Progress

Table 3.7: Energy Audits/Surveys Completed or In-Progress

Year	Total Department Area (Ft^2)	Energy Audits/ Surveys Under Way (Ft^2)	Percent of Department Floor Area
2014	148,857	0	0
2015	134,731	0	0
2016	134,731	0	0
2017	134,731	0	0
2018	153,731	0	0
2019	150,808	0	0
2020	160,808	0	0
2021	160,808	0	0
2022	160,808	0	0

The area measurements noted in Table 3.7 are the total space of CDFA owned facilities per DGS (including buildings, landscaping, parking, etc.) CDFA will continue to work with DGS' Office of Sustainability and relevant contractors to establish an energy survey schedule and start conducting energy surveys.

Planning Narrative for Table 3.7 Energy Audits/Surveys Completed or In-Progress

CDFA has performed an internal energy use audit and reported energy use in EnergyStar and CRIS every year since 2012. CDFA is pursuing potential funding assistance and incentive programs for energy projects and will continue to work with DGS and utility companies in performing more in-depth energy audits in the future.

Obstacles faced:
CDFA has limited meters available for benchmarking. CDFA will work with DGS (Office of Sustainability, RESD, and PMDB), and relevant contractors in installing energy meters, where feasible.

CDFA also faced difficulties with the Meadowview Road Complex solar field project initially planned to generate 50 percent of the power needed for the Department. This project eventually had to be cancelled and a new solar panel

project was developed for Turlock Veterinary Laboratory and Solar Field to generate 100 percent of electricity for CDFA-owned facilities. The project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field.

- The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025.
- The solar field is in the planning and development phase. Construction is projected to begin by 2025.

Demand Response Program (DRP)

Participating in DRP Utility Programs & Participating in DR Events

Table 3.8: DRP Participation

DR Program Participation	Number of Buildings	Estimated Available Energy Reduction (kWh)	Actual Curtailment (kWh)
Number of Buildings Participating in 2021	5	20 kWh for at least 2 consecutive hours during peak times	Unavailable
Number of Buildings Participating in 2022	11	38,936 kWh	Unavailable
Planned Number of Buildings that will Participate in 2023	11	38,936 kWh (all eligible previously enrolled)	Unavailable
Total Number of Department Buildings	11	38,936 kWh	Unavailable
2022 Department Buildings Participating (Percent)	100 %	--	--

The information in Table 3.8 is from CDFA's internal data and per the DGS data on DRP benefits for SMUD. All eligible facilities over 10,000 Ft^2 have been enrolled in DRP. There are only 3 CDFA owned facilities and 8 leased facilities over 10,000 Ft^2.

CDFA's Meadowview Road Complex enrolled in the DRP for SMUD, which will reduce energy consumption by at least 20kWh for at least 2 consecutive hours during peak times.

Planning Narrative for Table 3.8: DRP Participation

EO B-18-12 directed all state departments to participate in available DRPs and to obtain financial incentives for reducing peak electrical loads when called upon, as much as possible, when cost-effective.

CDFA continues to work with DGS in construction efforts that will meet goals set forth in the Governor's EOs and is developing plans for increasing use of the above strategies in the future for additional GHGe reductions. CDFA will work with DGS (RESD and PMDB) in incorporating construction elements intended to assist in meeting ZNE goals to new leased or owned facility projects.

Renewable Energy

Table 3.9: On-Site and Off-Site Renewable Energy

Status	Number of Sites	Capacity (kWh)	Estimated Annual Power Generation (kWh)	Percent of Total Annual DGS Power Use
Current On-Site Renewables in Operation or Construction	0	0	0	0
On-Site Renewables Planned	1	-	7,380,000	100%
On-Site Renewables Totals	1	-	7,380,000	100%
Department-Wide Total Energy Use (kWh equivalent)	-	-	7,341,707	100%
Current Off-Site Renewables	0	0	0	0
Planned Off-Site Renewables	0	0	0	0
Off-Site Renewables Combined Current & Planned	0	0	0	0
Current Combined On-Site and Off-Site Renewable Energy	1	0	0	0
Additional Planned On-Site and Off-Site Renewables	0	0	0	0

The solar field project for CDFA's new Turlock Veterinary Laboratory is currently in progress. This project is projected to cover all CDFA's renewable energy and ZNE goals.

Planning Narrative for Table 3.9, for all Existing Building Renewable Energy

CDFA purchased land for the new Turlock Veterinary Laboratory in 2018 to build a new facility and plans to install a solar field on the premises large enough to generate the energy equivalent to the energy used for 100 percent electricity for CDFA-owned facilities. The project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field.

- The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025.
- The solar field is in the planning and development phase. Construction is projected to begin by 2025. This solar field would fulfill the SB 1020 requirement of 100 percent renewable electricity by December 31, 2035.

Monitoring-Based Commissioning (MBCx)

CDFA works with DGS to stay compliant with all requirements; including incorporating Monitoring Based Commissioning (MBCx) to support cost effective and energy efficient building operations, using an Energy Management System (EMS) for all CDFA-owned facilities over 5,000 Ft^2 with EUIs exceeding thresholds described in MM 15-04.

Table 3.10: Current & Potential MBCx Projects

Facility	Building Name	Location	Floor Area (Ft^2)	EMS Info.	MBCx Capable, Difficult, or No EMS	MBCx Est. Start Date	MBCx Est. Cost ($ if known)
1267882	Long Valley Border Protection Station	Chilcoot	600	TBD	Capable	TBD	TBD
6739960	Mountain Pass Border Protection Station	Nipton	497	TBD	Capable	TBD	TBD
Solar Field & Facility 2851	Turlock Veterinary Laboratory	Turlock	35,000*	TBD	Capable	2023	Include in price**

Table 3.10 refers to MBCx projects, such as EMS and Building Management System (BMS). CDFA currently refers to utility bills to report energy use. CDFA will

evaluate the feasibility of pursuing MBCx projects, such as meter installations, for the above locations and to track energy use for EVSE and energy generation for the Turlock Veterinary Laboratory's Solar Field. CDFA will work with DGS, EnergyStar, and utility companies to review options for installation of energy meters, where feasible, to meet requirements.

* The new Turlock Veterinary Laboratory ([35,000 Ft^2 single story building] + walkways, curbs, gutters, signs, landscaping, fencing, gates, trash enclosure, storage outbuilding, animal holding pens, site lighting, etc. = 7.5 acres [326,700 Ft^2] total for the Laboratory building project) + (9 acres [392,040 Ft^2] for the solar field project) + (10.74 additional acres [467,834 Ft^2] with land utilization still to be determined) = Total lot size is 27.24 acres [1,186,574 Ft^2].

**Turlock Veterinary Laboratory (and Solar Field) building construction price includes MBCx cost.

Planning Narrative for Table 3.10: MBCx Status of Buildings

CDFA will consult with DGS to determine if there are programs that provide incentives or supplement finances required to install energy tracking meters.

CDFA energy is tracked for all owned facilities but installing additional meters would assist with determining renewable energy amounts (EVSE and solar field).

CDFA has identified the locations in Table 3.10 for the potential installation of energy meters, and will work with DGS (Office of Sustainability, RESD, and PMDB), and relevant contractors in installing energy meters, if feasible.

Building Controls

Reporting on Energy Management System (EMS) and Building Management System (BMS) Controls Building Capability

EMS and BMS, as well as smart thermostats for smaller buildings can be effective in automating functions that reduce energy use. CDFA works with DGS to ensure all EMS/BMS requirements are met.

Table 3.11: Building Controls

Equipment Controls	Percent of Buildings Controlled Remotely Offsite	Percent of Buildings with Controls Onsite	Percent of Total Buildings
HVAC: EMS/BMS	71%	100%	100%

The information in Table 3.11 is from CDFA's internal data.

Planning Narrative for Table 3.11: EMS/BMS/Controls Building Capability

EMS: CDFA worked with CalEPA and DGS' Office of Sustainability to determine the best course of action for energy reduction. CDFA has and will continue to evaluate incentive programs which may supplement project costs. CDFA continues to pursue energy reduction options which include, but may not be limited to, solar panel installation, energy audits, DRP for additional locations, and/or additional purchased renewable energy. CDFA is working with DGS and developing plans for increasing the use of current strategies in the future for additional GHGe reductions and ZNE efforts.

Prior to 2020, CDFA enrolled all facilities over 10,000 Ft^2 in automated DRP provided by utilities to reduce the stress on the grid and high electricity prices by curtailing, or reducing, the demand for electricity during certain time periods. CDFA will continue to work with utilities to enroll any new facilities over 10,000 Ft^2 in DRPs to maintain DRPs for 100 percent of owned facilities over 10,000 Ft^2.

CDFA has BMS for 15 of its 21 owned facilities:

- Alturas Border Protection Station
- Blythe Border Protection Station
- Dorris Border Protection Station
- GWSS – Arvin Field Station
- Hornbrook Border Protection Station

- Meadowview Road Complex
- Meyers Border Protection Station
- Redwood Border Protection Station
- San Bernardino Veterinary Laboratory
- Smith River Border Protection Station
- Topaz Border Protection Station
- Truckee Border Protection Station
- Tulelake Border Protection Station
- Vidal Border Protection Station
- Winterhaven Border Protection Station

CDFA selected the most advantageous Southern California Edison energy plans for all locations covered by the Southern California Edison utility, including the critical peak pricing plan (DRP) for its Camarillo leased facility.

CDFA continues to work with DGS in construction efforts that will meet goals set forth in the Governor's EOs and is developing plans for increasing use of the above strategies in the future for additional GHGe reductions. CDFA will work with DGS (RESD and PMDB) in incorporating construction elements intended to assist in meeting ZNE goals to new leased or owned facility projects.

Building Capacity/Decreased load use: CDFA has decreased load use through various methods, including:

- Decreased air conditioning use in server rooms, setting the temperature for data centers to the base maximum temperature allowed by equipment manufacturers.
- Reduced its use of standalone Windows servers from 60 prior to 2010, to approximately five, by consolidating and virtualizing the systems and functions they served into two virtualized multi-blade chassis.
- Set all computers, copiers, and printers to utilize their Energy Saver mode when inactive.
- Began using the Verdiem Surveyor power management software in

2008 to control and reduce power usage by desktop computers.

- Purchased Energy Star rated equipment where practical.
- Removed all vending machines and refrigerators that were not Energy Star rated.
- Set HVAC building controls for a two-degree fluctuation.
- Replaced and repaired HVAC where applicable.
- Partnered with SMUD on various projects at CDFA's Center for Analytical Chemistry Laboratory in Sacramento. Projects included shade trees planted around the facility and participation in SMUD's Energy Rebate Program for the replacement of the facility's HVAC chillers.
- Worked with CalEPA and DGS' Office of Sustainability to determine the best course of action for energy reduction. CDFA has and will continue to evaluate incentive programs which may supplement project costs. CDFA continues to pursue energy reduction options which include, but may not be limited to, solar panel installation, energy audits, DRP for additional locations, and/or additional purchased renewable energy. CDFA is working with DGS and developing plans for increasing the use of current strategies in the future for additional GHGe reductions and ZNE efforts.

Energy Reduction Strategies – Best Management Practices (BMPs)

Planning Narrative for Energy Reduction Strategies in Department Buildings BMPs

ENERGY REDUCTION STRATEGIES ACHIEVED

CDFA meets all BMPs for energy reduction strategies, including:

- Implementing Power management savings on electronic devices such as energy-savings mode during periods of inactivity, per DGS Basic Policy 4819.31, item.
- Ensuring lights and equipment are turned off at end of each workday.
- Purchasing Energy Star rated equipment or equivalent.

- Minimizing lighting and HVAC electric usage outside of normal building hours.
- Setting building HVAC controls to allow for a +2- or -2-degree fluctuation from the temperature set point.
- Ensuring that buildings take advantage of cool nighttime and morning temperatures by effectively utilizing economizer and night flush cycles.
- Operating data centers at the maximum temperature allowed by equipment manufacturers.
- Setting domestic hot water systems below 105°F.
- Turning off lights in all unoccupied rooms.
- Installing occupancy sensors.
- Measuring light levels and removing lamps or reducing wattage to provide appropriate light levels.
- Replacing all incandescent light bulbs and any remaining magnetic fluorescent ballasts in fluorescent light fixtures.
- Setting daylight controls on electric lights in any space over 10,000 Ft^2 that has skylights or windows.
- Ensuring state employees do not plug in any personal devices other than cell phone and tablet chargers and task lights.
- Removing any personal space heaters, microwaves, refrigerators, and coffee makers from the workplace.
- Ensuring new equipment purchased for employee kitchens and breakrooms has an Energy Star rating.
- Replacing refrigerators manufactured prior to the year 2000 with more efficient models.
- Ensuring all vending machines on-site are certified to Energy Star version 3.0, section 3(B) or are equipped with after-market occupancy sensor or sales-based EMS hardware.
- Installing timers on all equipment including paper shredders, lighted snack vending machines, and water coolers.

- Following all directions included in the DGS MM 14-09 "Energy Efficiency in Data Centers and Server Rooms."
- Ensuring all CDFA-owned and leased data centers and server rooms greater than 200 Ft^2 are operated within the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)-TC 9.9, Class A1-A4 guidelines, including operating at temperatures between 73-81°F, per SAM 1820.3.
- Ensuring all CDFA-owned data centers over 1,000 Ft^2 report their power usage effectiveness (PUE) to the California Department of Technology each year.
- Ensuring all CDFA-owned data centers over 1,000 Ft^2 with a PUE above 1.5 reduce their PUE by a minimum of 10 percent per year until they achieve a PUE of 1.5 or lower.
- Meeting the Energy Efficient Ethernet IEEE 802.3-2012 Section 6 standard for all purchases of network switches and routers.
- Considering virtualization options when refreshing server equipment or standing up new systems.

CHAPTER 4 – WATER EFFICIENCY AND CONSERVATION

Department Mission and Water Use

CDFA's mission is to serve the citizens of California by promoting and protecting a safe, healthy food supply, and enhancing local and global agricultural trade, through efficient management, innovation, and sound science, with a commitment to environmental stewardship.

CDFA has eight leased facilities with over 10,000 Ft^2 each and 21 owned facilities. The eight leased facilities have a total of 244,735 Ft^2 and the 21 owned facilities have a total of 160,808 Ft^2 space owned per DGS (per Google maps, CDFA owned facilities have about 148,547 Ft^2 of building structures and 82,200 Ft^2 of landscaping); for a total of 405,543 Ft^2 leased and owned space for the Department. These offices provide valuable services to farmers, ranchers, producers, merchants, and the public. Many of the functions are conducted in partnership with local County Agricultural Commissioner Offices. For example, three of the Border Protection Stations use bee watering stations during apiary inspections to spray beehives on incoming trucks and keep the bees cool during the inspection. All stations also use power washers to remove invasive aquatic species from boats coming into California. Three out of the sixteen Border Protection Stations use city water. The other thirteen stations use well water only. GWSS – Arvin Field Station utilizes host plants to study pests, which requires continuous use of irrigation water and cooling water for the swamp cooler operation in extreme heat area. Water shortage or loss would lead to plant and insect colony losses inside the greenhouse because of their reliance on irrigation and cooling systems. To alleviate any potential issues, CDFA takes immediate action to repair and maintain irrigation, metal valves, and cooling systems. All the water from CDFA's GWSS - Arvin Field Station is re-circulated and reused.

To meet the Governor's sustainability goals and the EOs implementing those goals, CDFA has made several steps toward building the infrastructure required to support the 47 percent reduction of CDFA's water use from 2010 to 2021.

Steps in Water Use Reduction:

CDFA's water reduction projects were targeted at increasing employee awareness, reducing landscape irrigation, replacing and retrofitting greenhouse fixtures, and replacing old bathroom fixtures with water-efficient alternatives.

Due to these efforts, CDFA has successfully reduced water use by 47 percent; from 76 million gallons used in 2010 to 40 million gallons used in 2021.

Water used for owned facilities in 2010 was 64,029,000 gallons. To facilitate water, use reduction, CDFA instituted various efforts at owned and leased facilities, including:

- Set baseline and started tracking data (2010): CDFA collected water use data for all its state-owned facilities. 14 of CDFA's owned facilities use water from non-metered wells. CDFA submitted water use data at its state-owned facilities for 2010 to be used as a baseline benchmark by December 31, 2013, in Energy Star Portfolio Manager.

- Implemented Furloughs (2008-2013): Statewide furloughs reduced water use due to fewer employees using facilities on extra days off.

- Reduced landscaping (2010 and 2014): CDFA reduced landscape irrigation/water used at several facilities in 2010 and January 2014 per the Governor's directives.

CDFA reduced water use of owned facilities by 11 percent (7,065,700 gallons) from 2010-2014. CDFA reduced water use of owned facilities by 27 percent (17,414,500 gallons) from 2010-2016. In addition to CDFA's continued efforts from prior years, CDFA made various water use conservation and reduction efforts at owned and leased facilities, including:

- Reported use data (2013-present): CDFA submitted water use data at its state-owned facilities for 2013 to Energy Star Portfolio Manager and has been entering data monthly thereafter for periodic reporting and an annual report due by March 1 each year.

- Expanded drought efforts (2013-2016 and 2018-2021): CDFA followed guidelines set forth in EO B-21-13, the 2014 Save Our Water Campaign, EO N-10-19, and The Governor's Proclamation of A State of Emergency 10-19-21 to reduce water use in consideration of the drought. These efforts included an evaluation of water efficiency measures that could be implemented in California agriculture over several years, recommendations on additional increases in water use efficiency, and discontinued use of pressure washing to clean sidewalks and structures.

- Installed signs (2014-present): Installed "Limit Water Use" signs at several facilities in January 2014. CDFA will continue to ensure all

CDFA facilities have signs notifying employees to conserve water. These signs are posted in all rooms that contain a faucet, toilet, or shower.

- Performed leak survey and repairs (2014): CDFA surveyed water outlets for leakage and repaired low-cost leaks in March 2014.

CDFA reduced water use for owned facilities by 43 percent (27,261,000 gallons) from 2010-2018. CDFA made various water use conservation and reduction efforts at owned and leased facilities, including:

- Increased employee awareness (2015-present): CDFA distributed "Save Our Water" brochures and stickers to CDFA employees in September 2015 to increase employee awareness. CDFA continues to further reduce water use by increasing employee awareness of water use through department-wide notifications to employees.

- Replaced fixtures at the Meadowview Road Complex laboratory (2015-2018): CDFA invested $17,250 to install 10 solar powered dual flush retrofit flushometers on toilets, replace two urinals, install 13 aerators on sink faucets, and replace 11 restroom faucets with sensor auto-shut-off faucets. It is estimated that these replacements save 131,468 gallons per year.

- Replaced fixtures at the Meadowview Road Complex laboratory (2015-2018): CDFA invested $380 to replace one toilet, two sink faucets, two aerators, and one showerhead with low flow fixtures.

- Performed Greenhouse Updates at the Meadowview Road Complex (2015-2018): CDFA invested $81,650 to replace ten swamp coolers, four control boxes, 16 hose bibs, 640 feet of old copper pipes, and 440 nozzle heads/sprayers with more efficient fixtures.

CDFA reduced water use of owned facilities by 38 percent (24,244,200 gallons) from 2010-2020. CDFA made various water use conservation and reduction efforts at owned and leased facilities, including:

- Implemented remote work (2020-present): CDFA moved to a business model that permanently integrates more remote-based employment. Reducing staff onsite also reduces the water used at each location.

CDFA reduced water use at owned facilities by 36 percent (22,765,900 gallons) from 2010-2022. CDFA made various water use conservation and reduction efforts at owned and leased facilities, including:

- Implemented fixture replacements at CDFA Headquarters (2021): CDFA replaced Americans with Disabilities Act (ADA) bathroom fixtures at 1220 N Street, in Sacramento.
- Performed maintenance (ongoing): Repairing leaks, adjusting sensors, and other maintenance (working with DGS on an ongoing basis as needed).

Region specific information:

Tulelake Border Protection Station:

- Set hot water heaters to 135°F.
- Replaced the well pump in 2014, improving water usage.
- Ceased use of all outside water faucets (shut offs were placed on all outside faucets), no power washer, the only water used for agricultural duties is in five-gallon buckets for the cherry crusher.
- Became compliant with United States Geological Survey (USGS) static levels –Upper Klamath Basin Groundwater Study.

Vidal Border Protection Station:

- Stopped watering plants (mandatory state reductions).
- Stopped running additional power coolers.

Hornbrook Border Protection Station:

- Switched to waterless urinals in employee and public restrooms.
- Stopped watering since the mandatory reductions were issued.
- Stopped using power coolers.
- Installed efficient water heater.

CDFA will continue to pursue efforts to reduce water use where feasible. Additional efforts to be implemented in the future, where feasible, may include:

- Maintenance (ongoing): Repairing leaks, adjusting sensors, and other maintenance (working with DGS on an ongoing basis as needed). CDFA will continue to work with DGS to survey water outlets for leakage and repair low-cost leaks at all CDFA locations.

- Greywater recycling (if feasible): CDFA will investigate the water savings vs cost of greywater recycling. If it is determined to be cost-effective and feasible, CDFA will implement greywater recycling where possible.

- Well meters (if feasible): Currently, 14 of the 21 facilities CDFA owns use unmetered well water. To better determine impacts generated from water conservation efforts, CDFA will evaluate the cost of installing meters to measure water use. If feasible, and if funding is available, CDFA will install meters and upgrade wells and pumps at each applicable location. Installations may need to be staggered due to budget constraints.

- Tankless water heating units (if feasible): CDFA will investigate the water savings vs cost of on-demand (tankless) water heating units. If cost-effective and feasible, CDFA will implement tankless units where applicable. (The 20 tanks listed in Table 4.12 are dependent on feasibility and funding availability.)

- Visalia fixture repairs / replacements (working with DGS): Recent leak survey and repairs at CDFA's Visalia office (requiring fixture repairs and part replacements) include one leaking toilet and one leaking faucet. CDFA will work with DGS to determine the best solution, find any other leaks present, and then begin repairs. (If replacements are needed, CDFA will use low flow fixtures for replacements.)

- Water leak detection devices / automated control systems (if feasible): CDFA will evaluate the feasibility of installing water leak detection devices and reporting systems that can be integrated into existing building security or automated control systems.

CDFA has developed various programs to encourage the public and private sector to conserve water throughout California. Some of CDFA's grant programs that provide grants to farmers and organizations to install energy and water conservation projects include:

- SWEEP: CDFA receives variable one-time appropriations in the annual Budget Act to fund on-farm water and GHGe reduction through SWEEP. To date, this program has awarded $121M in grants to conserve 1.5M acre feet of water over the lifetime of the grant projects. CDFA will award an additional $65 million through FY 2023-24.

- Specialty Crop Multi-State Program (SCMP): This program allocates approximately $2-3 million in grant funds every other year (amount varies by year). In 2019, at least $1 million in grants were awarded to fund low water use plant research. In 2021-2022, two water conservation and drought resilience/adaptation projects were funded for $1,674,164.

- SCBGP: CDFA awards approximately $23 million annually for this program. Part of the annual award amounts (amount varies by year) go toward conservation and drought resistance projects. In 2019, $1.9 million was awarded for drought resistance and water conservation. In 2021, at least $3.1 million was awarded to fund drought resistance and irrigation projects. In 2022, six water conservation and drought resilience/adaptation projects were funded for $2,611,522.

OEFI announced awards for the Water Efficiency Technical Assistance (WETA) Program in July 2023: 17 grants are being awarded to provide producers with irrigation efficiency and nutrient management technical assistance and training.

SWEEP also announced awards for block grants for 2023: Nine new grants will be awarded to organizations that will then work with producers to install irrigation system improvements.

Reporting on Total Purchased Water

Table 4.1: Total Purchased Water

Purchased Water (Gallons)	2021 Quantity	2022 Quantity	2021 Cost ($/Year)	2022 Cost ($/Year)
Potable	9,982,800	10,604,200	NO DATA	NO DATA
Recycle Water	0	0	NO DATA	NO DATA
Well Water	29,075,400	30,658,900	NO DATA	NO DATA
Total Water	39,058,200	41,263,100	NO DATA	NO DATA

The information in Table 4.1 from DGS and CDFA's internal data, per previous Sustainability Roadmap submissions, is also available on Energy Star's webpage and at green.ca.gov. Table 4.1 includes totals for all CDFA-owned facilities. CDFA does not track water costs for most facilities.

Seven of the 21 facilities CDFA owns use potable water from utilities (the other 14 owned facilities use water from unmetered wells/basins):

1. Anaheim Laboratory
2. Blythe Border Protection Station
3. Hornbrook Border Protection Station
4. Meadowview Road Complex
5. Meyers Border Protection Station
6. San Bernardino Veterinary Laboratory
7. Turlock Veterinary Laboratory

Reporting on Facilities with Largest Purchased Water Use per Capita

Table 4.2: Facilities with Purchased Largest Water Use Per Capita

Building Name	Area (Ft^2)	# of Building Occupants	Total 2022 Gallons	Total 2022 Irrigation in Gallons (if known)	Gallons per Capita
GWSS – Arvin Field Station	2,000	5	4,639,680	No Data	927,936
Meadowview Road Complex	101,238	180	7,242,116	No Data	144,842
Needles Border Protection Station	497	21	8,546,976	No Data	406,999

Building Name	Area (Ft^2)	# of Building Occupants	Total 2022 Gallons	Total 2022 Irrigation in Gallons (if known)	Gallons per Capita
San Bernardino Veterinary Laboratory	1,700	28	2,781,064	No Data	99,324
Truckee Border Protection Station	1,308	19	3,373,488	No Data	177,552
Total for Buildings in This Table	106,743	---	26,583,324	No Data	---
Total for All Department Buildings	161,808	---	41,263,100	No Data	---
Percent of Totals	66%	---	64%	No Data	---

The information in Table 4.2 was derived from DGS, Energy Star (gallons), DGS (area measurements - including the total space owned [buildings, landscaping, parking, etc.]), and CDFA's internal data (gallons and full-time permanent employees). Table 4.2 includes totals for all CDFA-owned facilities. Water used for irrigation is not tracked separately.

Reporting on Facilities with Largest Landscape Area Using Purchased Water

Table 4.3: Facilities with Largest Landscape Area Using Purchased Water

Building Name	Landscape Area (Ft^2)
Anaheim Stadium Industrial Park (leased)	8,115
Florin-Perkins – Measurement Standards Division (leased)	14,473
GWSS – Arvin Field Station	23,000
Meadowview Road Complex	18,300
PDCP Glenwood (leased) – Nursery/Greenhouse	9,806
Total Landscaping area for Buildings in This Table	73,694
Total Landscaping for All Department Buildings	87,504
Percent of Totals that is large landscape	84%

The information in Table 4.3 was derived from Google Maps and CDFA's internal data. To determine the information in Table 4.3, CDFA compared CDFA-owned facilities and leased facilities over 10,000 Ft^2. Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft^2 at all Border Protection Stations.

Reporting on the Department's Purchased Water Use Trends from 2010 to Present

Table 4.4: Department Wide Purchased Water Use Trends

Year	Total Occupancy/year	Total Amount Used (Gallons/year)	Per capita Gallons per person per day
Baseline Year 2010	1,221	64,029,000	144
2018	1,314	36,768,000	77
2019	1,312	37,971,800	79
2020	2,141	39,784,800	51
2021	1,327	39,058,200	81
2022	1,324	41,263,100	85
2024 Goal	1,324	33,817,080	70

The information in Table 4.4, was derived from DGS, CalRecycle, Energy Star, and CDFA's internal data. Table 4.4 includes totals for all CDFA-owned facilities.

Reporting Narrative on Purchased Water Use Trends from 2010 to Present

CDFA reduced water use for all owned facilities by 38 percent from 2010-2020, exceeding the Governor-issued EO B-18-12 goal to reduce water use from 2010-2020 by 20 percent and EO B-29-15 changing the goal to reduce water use from 2010-2020 to 25 percent. Although water use increased in 2022, due to various factors such as drought, staff returning to the office post-pandemic, and program growth, CDFA's owned facilities still used 36 percent less water than in 2010. CDFA will continue to pursue reductions where feasible.

Reporting on Total Purchased Water Reductions from 2010 to Present

Table 4.5: Total Purchased Water Reductions Achieved in Gallons

2010 Baseline totals (Gallons)	2021 Totals (Gallons)	2022 Totals (Gallons)
64,029,000	39,058,200	41,236,100
+ or - Gallons Compared to Baseline Year	-24,970,800	-22,792,900
Department- Wide Reduction as a percent from 2010 baseline	-39%	-36%

The information in Table 4.5 was derived from CDFA's internal data. Table 4.5 includes totals for all CDFA-owned facilities.

Department Indoor Water Use

Fixtures and Water Using Appliances Needs Inventories

Reporting on Building Indoor Water Fixtures and Water Using Appliances Needs

Visalia had two replacements (listed in Table 4.6)

Table 4.6: Building Indoor Water Fixtures and Water Using Appliances Needs Inventories Summary

Number of toilets to replace	Number of urinals to replace	Number of faucet aerators to replace	Number of showerheads to replace	Number of clothes washers to replace	Number of garbage disposals to replace	Number of pre-rinse valves to replace
0	0	1	0	0	0	1

The information in Table 4.6 can be found on Energy Star's webpage.

Planning Narrative for Indoor Building Water Fixtures and Water Using Appliances Needs

The recent leak survey and repairs at CDFA's Visalia office (requiring fixture repairs and part replacements) include one leaking toilet and one leaking faucet that may need to be replaced. CDFA will work with DGS to determine the best solution and find any other leaks present and then begin repairs, and if replacements are needed, CDFA will use low flow fixtures for replacements.

CDFA tracks what equipment will need to be replaced and when. This information will be used to prepare a comprehensive plan to purchase the equipment based on need and cost. If additional fixtures are needed, CDFA will ensure their installation.

CDFA will perform annual evaluations to continue efforts for water conservation, where feasible. Updates may include:

- Working with DGS to survey water outlets for leakage and repair low-cost leaks at all CDFA locations throughout each year as maintenance needs are identified.
- Ensuring all CDFA facilities have signs notifying employees to conserve water. These signs are posted in all rooms that contain a faucet, toilet, or shower.

- Installing water leak detection devices and reporting systems that can be integrated into existing building security or automated control systems.

- Working with DGS and Border Protection Stations management to determine other needs of the Border Protection Stations and arrange for water audits to be performed; and performing water use estimates in lieu of water audits for all facilities using well water.

Water Conservation and Water Efficiency Projects for Purchased Water

Reporting on Current Indoor Water Efficiency Projects 2020- Present

CDFA completed three indoor efficiency projects to promote the Governor's water efficiency and conservation goals, which included reduced landscape irrigation/watering at several facilities in 2010 and 2014, posting "limit water use" signs and conducting leak surveys and repairs. CDFA water use dropped by 2,907,600. Although CDFA is not able to track specific causes of this decrease, it is likely due to the three completed water projects.

In September 2015, CDFA distributed "Save Our Water" brochures and stickers to CDFA employees to increase employee awareness. CDFA continues to further reduce water use by increasing employee awareness of water use through departmentwide notifications to employees. CDFA water use dropped by 8,870,000 gallons per year from 2014 to 2015 (and CDFA continued to reduce water 2015-2022). Although CDFA is not able to track specific causes of this decrease, it is likely due to the completed water project and prior efforts.

In 2018, the three indoor efficiency projects CDFA finished included replacing and retrofitting fixtures at the Meadowview Road Complex laboratory and greenhouse. The laboratory restroom project included installation of ten solar powered dual flush retrofit flushometers on toilets and replacements of two urinals, 13 aerators on sink faucets, and 11 restroom faucets with sensor auto-shut-off. The greenhouse projects included low flow fixture replacements of one toilet, two sink faucets, two aerators, one showerhead, ten swamp coolers, four control boxes, 16 hose bibs, 640 feet of old copper pipes, and 440 nozzle heads/sprayers with more efficient fixtures. CDFA water use dropped by 5,400,000 gallons per year from 2017 to 2018. Although CDFA is not able to track specific causes of this decrease, it is likely due to the three completed water projects.

In 2020, CDFA moved to a business model that permanently integrates more remote-based employment. Reducing staff onsite also reduces the water used at each location. CDFA water use dropped by 20,000 gallons per year from 2019 to 2020. Although CDFA is not able to track specific causes of this decrease, it is likely due to the completed water project and prior efforts.

In 2021, CDFA replaced ADA bathroom fixtures at CDFA's headquarters, 1220 N Street, in Sacramento. CDFA also installed new efficient air conditioning and chiller units at the Hawaii Fruit Fly Rearing Facility. CDFA will continue to work with DGS to evaluate water efficiency and conservation projects and implement them where feasible.

Region-specific information:

Tulelake Border Protection Station:

- Hot water heaters were set to 120°F.
- The well pump was replaced in 2014, improving water usage.
- The station has no outside water faucets, no power washer, the only water used for agricultural duties is in five-gallon buckets for the cherry crusher.
- Compliant with USGS static levels –Upper Klamath Basin Groundwater Study.

Vidal Border Protection Station:

- Not watering plants (mandatory state reductions).
- Not running additional power coolers.

Hornbrook Border Protection Station:

- Waterless urinals in employee and public restrooms.
- Not using the power coolers.
- New efficient water heater.

Mountain Pass Border Protection Station:

- Repaired the station well pump, resulting in more even pressure levels and reduced strain on the pump, well, and the power system at the station.

Table 4.7: Summary of Current Indoor Water Efficiency Projects Completed 2020-Present or In Progress

Completed Projects per Year	Water Saved (Gallons/yr.)	Number of Indoor Water Efficiency Projects Completed	Cost Savings per Year
2020	20,000	1	Unavailable (Rate varies)
2021	2,204,900	2	0
2022	0	0	0

The information in Table 4.7, from DGS, can be found at green.ca.gov. Table 4.7 includes totals for all CDFA-owned facilities. Savings are not individually tracked so amounts are based on total water savings.

Estimates are provided because most facilities (14 of 21) are supplied by unmetered well water. All tables provide total estimated water savings for all CDFA conservation efforts instead of individual savings for each project because water use is not tracked separately for indoor versus outdoor use. Water costs are not currently tracked (rate varies and not steady amount per gallon), however, CDFA is working with DGS' Office of Sustainability on preferred methods to track this data in the future.

Planning for Future Indoor Water Efficiency for the Next 5 Years- Building Priority Projects

Planning Outline PO4:a: Building Indoor Water Efficiency Priority Projects for the Next 5 Years

Building Name	Type of Project	Estimated Water Savings	Estimated Start Date
Alturas Border Protection Station	Bathroom fixture upgrade	7,738 gallons	TBD (In Planning)
Alturas Border Protection Station	Water meter, upgrade well/pumps, tankless water heater, water filtration system, drinking fountain	696 gallons	TBD
Anaheim Laboratory	Tankless water heater	0	TBD
Benton Border Protection Station	Bathroom fixtures	21,248 gallons	TBD

Building Name	Type of Project	Estimated Water Savings	Estimated Start Date
Benton Border Protection Station	Upgrade well/pumps	348 gallons	TBD
Blythe Border Protection Station	Bathroom fixtures	2,190 gallons	TBD
Blythe Border Protection Station	Tankless water heater	0	TBD
Dorris Border Protection Station	Tankless water heater	0	TBD
Hornbrook Border Protection Station	Water meter, tankless water heater	0	TBD
Long Valley Border Protection Station	Water meter	0	TBD
Meadowview Road Complex	Bathroom fixtures	28,436 gallons	TBD
Meyers Border Protection Station	Water meter, tankless water heater	0	TBD
Redwood Border Protection Station	Water meter, tankless water heater	0	TBD
San Bernardino Veterinary Laboratory	3 tankless water heaters	0	TBD
Smith River Border Protection Station	Tankless water heater	0	TBD
Topaz Border Protection Station	Bathroom fixtures	8,468 gallons	TBD
Topaz Border Protection Station	Water meter, tankless water heater	0	TBD
Truckee Border Protection Station	Water meter	0	TBD
Tulelake Border Protection Station	Bathroom fixtures	21,248 gallons	TBD
Tulelake Border Protection Station	Water meter, upgrade well/pumps, tankless water heater	348	TBD
Vidal Border Protection Station	Bathroom fixtures	7,738 gallons	TBD

Building Name	Type of Project	Estimated Water Savings	Estimated Start Date
Vidal Border Protection Station	Water meter, tankless water heater	0	TBD
Winterhaven Border Protection Station	Bathroom fixtures	8,468 gallons	TBD

Bathroom project estimates based on:

- 2,774 gallons per year savings for each toilet replacement,
- 730 gallons per year savings for each sink/urinal replacement,
- 348 gallons per year savings for each other repair/replacement.

CDFA will continue to pursue efforts to reduce water use where feasible. Additional efforts to be implemented in the future, where feasible, may include:

- Maintenance (ongoing): Repairing leaks, adjusting sensors, and other maintenance (working with DGS on an ongoing basis as needed). CDFA will continue to work with DGS to survey water outlets for leakage and repair low-cost leaks at all CDFA locations.
- Greywater recycling (if feasible): CDFA will investigate the water savings vs cost of greywater recycling. If it is determined to be cost-effective and feasible, CDFA will implement greywater recycling where possible.
- Well meters (if feasible): Currently, 14 of the 21 facilities CDFA owns use unmetered well water. To better determine impacts generated from water conservation efforts, CDFA will evaluate the cost of installing meters to measure water use. If feasible, and funding is available, CDFA will install meters and upgrade wells and pumps at each applicable location. Installations may need to be staggered due to budget constraints.
- Tankless water heating units (if feasible): CDFA will investigate the water savings vs cost of on-demand (tankless) water heating units. If cost-effective and feasible, CDFA will implement tankless water heaters where applicable. (The 20 tanks listed in Table 4.12 are dependent on feasibility and funding availability.)
- Visalia fixture repairs / replacements (working with DGS): Leak survey and repairs at CDFA's Visalia office (requiring fixture repairs

and part replacements) include one leaking toilet and one leaking faucet. CDFA will work with DGS to determine the best solution, find any other leaks present, and then begin repairs. (If replacements are needed, CDFA will use low flow fixtures for replacements.)

- Water leak detection devices / automated control systems (if feasible): CDFA will evaluate the feasibility of installing water leak detection devices and reporting systems that can be integrated into existing building security or automated control systems.

Planning Narrative for Future Indoor Water Efficiency – Building Priority Projects

Water use is not tracked separately for indoor versus outdoor use, and water costs are not currently tracked (rate varies and not steady amount per gallon), however, CDFA is working with DGS' Office of Sustainability on preferred methods to track this data in the future. CDFA will evaluate and determine additional steps to create policies to better track water usage. The remote location of Border Protection Stations combined with the costs of completing projects has led to significant delays in moving projects forward. CDFA will continue to work with DGS to evaluate water efficiency and conservation projects and implement projects where feasible.

Planning Narrative on General Water Management BMPs

GENERAL WATER MANAGEMENT BMP ACHIEVED.
CDFA reports leaks and requests replacement of faulty steam traps as soon as possible. CDFA also works with DGS in monitoring meters, detecting and fixing leaks, and performing routine maintenance following manufacturers' instructions required by these BMPS to assure that costly repairs and accidents are avoided. CDFA relies on DGS to:

- Develop and implement a boiler tuning program to be completed a minimum of once per operating year.
- Provide proper insulation on steam and condensate return piping, as well as on the central storage tank.
- For both cooling towers and boilers, obtain the services of a water treatment specialist to prevent system scale and corrosion and to optimize cycles of concentration. Treatment programs should include routine checks of boiler water chemistry.
- Develop and implement routine inspections and maintenance programs on condensate pumps.

- Regularly inspect both the water side and fire side of the boiler. If needed, clean the tube surfaces to ensure optimal heat transfer thereby optimizing system energy efficiency.
- Adjust boiler and cooling tower blowdown rate to maintain levels recommended by manufacturers' specifications.
- Shut off water-cooled air conditioning units when not needed or replace water-cooled equipment with air-cooled systems.

Planning Narrative on Leak Detection and Repair BMPs

LEAK DETECTION AND REPAIR BMP ACHIEVED

CDFA promptly submits work orders to DGS on leaking toilets, urinals, faucets, showers, and sprinklers.

CDFA relies on DGS to perform monthly visual leak detection surveys on all water use fixtures:

- Toilets
- Urinals
- Faucets – Check faucets for proper aerators (kitchen faucets 2.2 gallons per minute and lavatory faucets 0.5 gallons per minute) and install aerators or laminar flow devices if necessary.
- Showers – Check showerhead flow rates and install showerheads using no more than 2.0 gallons per minute with trickle flow controls.

Station supervisors check for water meter leaks monthly at every Border Protection Station. Building Maintenance Workers or other CDFA employees check greenhouses and irrigation systems at owned facilities, such as GWSS – Arvin Field Station, every day.

Planning Narrative on Kitchen Water Conservation BMPs, Fixtures

NO KITCHENS

In break areas, CDFA adjusts ice machines to dispense less ice if ice is being wasted so that water does not flow unnecessarily. CDFA does not use running water to melt ice in bar sink strainers or defrost food. Additionally, CDFA relies on DGS to ensure all Building Water Management requirements are met, taking steps such as checking all equipment water temperatures and flow rates against the manufacturer recommendations. Use the recommended lowest temperature and flow to optimize savings.

Planning Narrative on Laundry Facilities Water Conservation BMPs

CDFA relies on DGS to ensure all Building Water Management requirements are met, taking steps such as:

- Running washing machines only when full to optimize capacity.
- Appropriately setting the water level and water temperature according to the load.

All CDFA-owned facilities with washing machines, not managed by DGS, set the water level and temperature appropriate to the load and wait to do a full load of laundry as needed.

Department Total Non-Purchased Water

Reporting on Total Non-purchased Water Excluding Water Reuse or Recycling

Table 4.8: Department-Wide Non-purchased Water Use

Year	Groundwater Basin(s) Name	Number of Domestic or Irrigation Wells	Groundwater Use in Gallons	Surface Water Use in Gallons	Total (Gallons/ Year)
Baseline Year 2020	Various (Listed below)	14	29,075,400	10,709,400	39,784,800
2021	Various (Listed below)	14	29,075,400	9,982,800	39,058,200

Year	Groundwater Basin(s) Name	Number of Domestic or Irrigation Wells	Groundwater Use in Gallons	Surface Water Use in Gallons	Total (Gallons/ Year)
2022	Various (Listed below)	14	30,658,900	10,604,200	41,263,100

The information in Table 4.8 was derived from Energy Star and CDFA's internal data.

Reporting Narrative for Non-purchased Water

CDFA is working with DGS' Office of Sustainability on preferred methods to track well water use in the future. 14 of the 21 CDFA-owned facilities use water from unmetered wells/basins (the other seven owned facilities use potable water from utilities):

1. Alturas Border Protection Station
2. Benton Border Protection Station
3. Dorris Border Protection Station
4. GWSS – Arvin Field Station (Edison District water)
5. Long Valley Border Protection Station
6. Mountain Pass Border Protection Station
7. Needles Border Protection Station
8. Redwood Border Protection Station
9. Smith River Border Protection Station
10. Topaz Border Protection Station
11. Truckee Border Protection Station
12. Tulelake Border Protection Station
13. Vidal Border Protection Station
14. Winterhaven Border Protection Station

Most of CDFA's owned facilities are in remote locations. For example, PDCP, GWSS – Arvin Field Station is surrounded by farm fields in Kern County. The GWSS – Arvin Field Station is a four-acre facility composed of greenhouses, a warehouse, insectary trailers, shop, office/lab buildings, and a shaded parking lot. There are three different water sources for the GWSS – Arvin Field Station operation:

1) Underground-well water from a neighbor, which is used for bathrooms, sinks, swamp coolers in greenhouses and a few buildings, truck washing, and outdoor landscape trees.

2) Irrigation water from GWSS – Arvin Field Station-Edison Water District, which is used for host plants. The quality of underground-well water is poor for drinking or growing plants.

3) Culligan Water for drinking.

Major program functions of PDCP, GWSS – Arvin Field Station include:

I. GWSS Biological Control.

II. Asian Citrus Psyllid (ACP) Biological Control.

III. GWSS Trapping in Kern County.

IV. PDCP Warehouse Operation: distributing GWSS trapping supplies to County Agricultural Commissioner Offices and PDCP Field Stations throughout California.

Reporting Narrative for Non-purchased Water Use Trends

Water use estimates are provided for 14 of 21 CDFA owned facilities supplied by unmetered well water. Most (13 of 14) CDFA owned facilities using non-purchased water are Border Protection Stations. CDFA is working with DGS' Office of Sustainability on preferred methods to track well water use in the future. CDFA Border Protection Stations are located on freeways and are therefore isolated. All CDFA Border Protection Stations listed above use well water as their only water source. CDFA water use is kept to a minimum whenever possible. Landscaping and outdoor irrigation are not used at Border Protection Stations, and nearly all water is used for sinks, restrooms, and inspections. More water is used during the summer months to keep staff hydrated and to clean any invasive aquatic species off boats passing through the stations. The stations also use slightly more water from September through February on apiary shipments. Bee watering stations are used at the Needles, Mountain Pass, and Truckee Border Protection Stations to keep bees cool during

inspections. Other stations performing apiary inspections use hoses when needed.

Planning Narrative for Non-purchased Water Unavailability

CDFA is working with DGS' Office of Sustainability on preferred methods to track non-purchased water use in the future.

CDFA is working to create reduction plans that meet the location-specific needs for each Border Protection Station. Due to the differences in climates at the stations, different methods are needed. Any Border Protection Stations that do not currently have low-flow toilets or fixtures will be working on obtaining replacements as soon as possible. Landscaping and outdoor irrigation are not used at the stations, and nearly all water is used for sinks, restrooms, and inspections.

CDFA will re-evaluate feasibility of water projects and funding availability in 2026 and work with DGS to determine a feasible plan for an alternate water source if the well water becomes unavailable. Some potential solutions include temporary use of the underground-well water at the GWSS – Arvin Field Station to keep the plants alive and rainwater collection at the Border Protection Stations. While a few of the Border Protection Stations would be able to connect to city water lines if the wells were no longer operable, many of the Border Protection Stations are too remote, and would need to rely on a combination of rain collection and water tanks and deliveries.

Department Water Energy Nexus Reporting

Reporting on Annual Amount of Boiler Makeup Water Used

Table 4.9: Annual Amount of Boiler Makeup Water Used

Boiler Water Use	Year 2021	Year 2022
Amount of Water Used for Makeup (Gallons)	NO DATA	NO DATA
Amount of Water Currently Reused (Gallons)	NO DATA	NO DATA
Remaining additional water suitable for other purposes (Gallons)	NO DATA	NO DATA
Totals for all Facilities	NO DATA	NO DATA

CDFA has boilers but boiler water use is not tracked separately.

Planning Narrative on Boiler Water Reuse Opportunities

There are no new or in-progress projects for boilers or cooling systems. The last retrofit project was completed in 2018 and included replacement of 10 swamp coolers. Challenges for additional reuse include water quality, high-cost maintenance, and aging units over time. Barriers for replacements that would enhance efficiency include high cost, funding, and challenges associated with the state's purchasing and contracting requirements. The Border Protection Stations have a limited ability to reuse water, and budgetary constraints do not currently allow for retrofitting the stations to reuse water. For the Border Protection Stations that use well water, the water is fed into septic systems and water is regularly checked for any hazardous bacteria or chemicals to ensure the water remains potable and safe. CDFA will work with DGS to meet all requirements and determine feasible solutions.

General maintenance (at Meadowview Road Complex and Truckee Border Protection Station):

- CDFA ensures that all boilers are tuned up, including a combustion efficiency check, at least twice per year.
- CDFA works with DGS to ensure that domestic hot water systems are not set hotter than 105°F. Night flush cycles are also utilized where feasible. CDFA ensures that buildings take advantage of cool nighttime and morning temperatures by effectively utilizing economizer and night flush cycles. CDFA ensures that data centers are operated at the highest temperature allowed by equipment manufacturers.
- CDFA works with DGS to ensure that HVAC (ducts, filters, and equipment) are inspected and maintained to be the most effective.

Region specific information:

- Tulelake Border Protection Station: Hot water heaters were set to 120°F.
- Vidal Border Protection Station: Not running additional power coolers.
- Hornbrook Border Protection Station: Not using the power coolers. New efficient water heater.

Planning Narrative for Boiler Efficiency

BOILER WATER USE EFFICIENCY ACHIEVED

The Border Protection Stations professionally maintain and service their boilers to keep them working as efficiently as possible. They are also checked by station supervisors monthly for leaks or other issues, and those issues are resolved as quickly as possible.

CDFA reports leaks and requests replacement of faulty steam traps as soon as possible, and works with DGS in monitoring meters, detecting, and fixing leaks, and performing routine maintenance following manufacturers' instructions to assure that costly repairs and accidents are avoided. CDFA relies on DGS to:

- Develop and implement a boiler tuning program to be completed a minimum of once per operating year.
- Provide proper insulation on steam and condensate return piping, as well as on the central storage tank.
- For both cooling towers and boilers, obtain the services of a water treatment specialist to prevent system scale and corrosion and to optimize cycles of concentration. Treatment programs should include routine checks of boiler water chemistry.
- Develop and implement routine inspections and maintenance programs on condensate pumps.
- Regularly inspect both the water side and fire side of the boiler. If needed, clean the tube surfaces to ensure optimal heat transfer thereby optimizing system energy efficiency.
- Adjust boiler and cooling tower blowdown rate to maintain TDS at levels recommended by manufacturer'' specifications.

The barriers to improving boiler water use at the stations are the need for new equipment and the associated costs. CDFA will work with DGS to meet all requirements and determine feasible solutions as needed.

Reporting on Cooling Tower's Water Use

CDFA has partnered with SMUD on various projects at CDFA's Center for Analytical Chemistry Laboratory at the Meadowview Road Complex, in Sacramento; and consults with SMUD and DGS regarding the cooling tower at this location. CDFA participates in SMUD's Energy Rebate Program for the replacement of HVAC chillers.

CDFA ensures that HVAC ducts, filters and equipment are inspected and maintained at maximum effectiveness. CDFA works with DGS to ensure:

- Lighting and HVAC electric usage is minimized outside of normal building hours.
- Building HVAC controls are set to allow for a +2- or -2-degree fluctuation from the temperature set point for all EMS', thermostats, and economizers.
- HVAC systems provide no less than the required minimum outdoor air requirements.
- HVAC systems are inspected at least annually, and all HVAC inspections and maintenance are documented in writing. These inspections must include:
    - Verifying minimum outdoor airflows using hand-held airflow measuring instruments.
    - Confirming that air filters are clean and replaced based on manufacturer's specified interval.
    - Confirming air filters used have a minimum efficiency rating value rating of no less than 11.
    - Verifying that all outdoor dampers, actuators, and linkages operate properly.
    - Checking condition of all accessible heat exchanger surfaces for fouling and microbial growth, with action taken when fouling is found.
    - Checking the first 20 feet of ductwork downstream of cooling coils for microbial growth and resolving any issues if growth is found.

- Ensuring that cooling towers are properly maintained and that records of chemical treatment are kept. Retrofit to prevent cooling tower plumes closer than 25 feet to any building air intake.

- A computer-based preventative maintenance program is in place for all HVAC equipment.

- Buildings are purged with outdoor air sufficient for three complete air changes or the minimum ventilation rate allowed in Section 120.I2 of Title 24 for one hour before occupancy.

Table 4.10: Cooling Tower Water Use

Cooling Tower Water Use	Year 2021	Year 2022
Amount of Water Used for Make-up (Gallons)	NO DATA	NO DATA
Totals for all Facilities	NO DATA	NO DATA

Cooling Tower water use is not tracked separately.

Planning Narrative on Cooling Tower Water Use.

CDFA has one cooling tower at the Meadowview Road Complex, but CDFA does not track cooling tower water use separately. CDFA will look at the viability of using cooling towers at the Border Protection Stations to determine if the benefits would outweigh the costs of the new equipment. CDFA will work with DGS to determine feasible solutions for collecting the required data.

Planning Narrative for Cooling Tower Water Reuse

CDFA will work with DGS to develop water reuse policies where feasible.

Planning for Narrative for Cooling Tower Efficiency

CDFA takes immediate action to report leaks and requests replacements and repairs as soon as possible for the cooling tower at the Meadowview Road Complex. CDFA also works with DGS to perform routine maintenance following manufacturer instructions required by these BMPs to assure that costly repairs and accidents are avoided. CDFA relies on DGS to shut off water-cooled air conditioning units when not needed or replace water-cooled equipment with air-cooled systems.

Reporting on Boilers Needs Inventories Summary

Table 4.11: Summary of Boilers Needs Inventory

Number of meters to purchase and install	Water Treatment	Other
14	NO BOILER / WATER TREATMENT NEEDS	21 Flash Tanks

Fourteen of the 21 CDFA-owned facilities use unmetered well water. The estimates provided in Table 4.11 are based on providing one flash tank for each of the 21 owned facilities and one water meter for each of the 14 owned facilities with unmetered wells.

Planning Narrative for Boilers Needs

The meters and flash tanks listed in Table 4.11 are dependent on feasibility and available funding. To better determine impacts generated from water conservation efforts, CDFA will evaluate the cost of installing meters to measure water use. If feasible, and if funding is available, CDFA will install meters and upgrade wells and pumps at each applicable location. CDFA may have to stagger installations due to available funding.

CDFA will investigate the water savings versus cost of on-demand (tankless) water heating units. If cost-effective and feasible, CDFA will implement units where applicable. CDFA will continue to work with DGS to meet conservation goals where feasible.

Reporting on Cooling Systems Needs Inventory Summary

Table 4.12: Summary of Cooling System Needs Inventory

Equipment Needed	Equipment Totals for all Facilities
Meters	14
Water Treatment	NO COOLING SYSTEMS NEEDS
Other	NO COOLING SYSTEMS NEEDS

The information in Table 4.12 was derived from CDFA's internal data. CDFA has 14 facilities using unmetered well water.

Planning Narrative for Cooling Systems Needs

NO COOLING SYSTEMS NEEDS

All CDFA-owned facilities report and repair or replace cooling systems immediately when issues arise. The Border Protection Stations in need of new cooling systems have been identified and addressed.

Reporting on Efficiency Projects for Boilers and Cooling Systems 2020-Present

Table 4.13: Summary of Efficiency Projects for Boilers and Cooling Systems

Project Type	Water Saved (Gallons/yr.)	Number of Completed Projects	Number of Projects in Progress
2020	NO DATA	1	0
2021	NO DATA	5	0
2022	NO DATA	0	3

CDFA has boilers and a cooling tower at the Meadowview Road Complex and boilers at the Truckee Border Protection Station, but boiler and cooling tower water use is not tracked separately. The information in Table 4.13 was derived from CDFA's internal data.

Planning Narrative for BMPs for Building Boilers and Cooling Systems

BUILDING BOILERS AND COOLING SYSTEMS BMPS ACHIEVED

BMPs in this section not only save water and energy but they perform an important safety role as well. The meters, leak detection processes, and routine maintenance following manufacturers' instructions required by these BMPs assure that costly repairs and accidents are avoided. These BMPs require that enough staff with the requisite expertise and knowledge have sufficient resources to perform the actions required.

CDFA reports leaks and requests replacement of faulty steam traps as soon as possible. CDFA also works with DGS in monitoring meters, detecting, and fixing leaks, and performing routine maintenance following manufacturers' instructions required by these BMPs to assure that costly repairs and accidents are avoided. CDFA relies on DGS to:

- Develop and implement a boiler tuning program to be completed a minimum of once per operating year.
- Provide proper insulation on steam and condensate return piping, as well as on the central storage tank.
- For both cooling towers and boilers, obtain the services of a water treatment specialist to prevent system scale and corrosion and to optimize cycles of concentration. Treatment programs should include routine checks of boiler water chemistry.
- Develop and implement routine inspections and maintenance programs on condensate pumps.

- Regularly inspect both the water side and fire side of the boiler. If needed, clean the tube surfaces to ensure optimal heat transfer thereby optimizing system energy efficiency.
- Adjust boiler and cooling tower blowdown rate to maintain TDS at levels recommended by manufacturers' specifications.
- Shut off water-cooled air conditioning units when not needed or replace water-cooled equipment with air-cooled systems.

Department Outdoor Water Use

Water use data is collected from the local water provider or the landscape manager. The landscape water budget is calculated based on each specific landscape, local climate, and plant water needs and calculations are used to determine landscape water management. Necessary data can be provided from dedicated landscape meters or, in the case of facilities with mixed use meters, a landscape sub-meter. If a dedicated meter or sub-meter is not available a winter/summer use comparison can be used to estimate the summer irrigation demand and landscape water budget.

Reporting on Outdoor Irrigation Hardware Inventory

CDFA works with DGS in ensuring all landscaping hardware maintenance requirements and BMPs are met.

Table 4.14: Summary of Outdoor Irrigation Hardware Needs Inventory

Irrigation Hardware Type	Total Hardware Needed
Separate meters or sub-meters	1
Irrigation controllers required with weather or soil moisture adjustment and flow sensing capabilities	0
Backflow prevention devices	0
Flow sensors to be purchased and installed	0
Automatic rain shut-off devices	0
New pressure regulators	0
New hydro-zones	0
New valves	0
Filter assemblies	0
Drip irrigation emitters	0
Booster pumps	0
Rotary nozzles or other high efficiency nozzles	0

The one meter noted in Table 4.14 is proposed for the GWSS - Arvin Field Station. Installation will depend on budget availability and feasibility. This project has

been delayed due to budget constraints. CDFA will re-evaluate feasibility of meter project and funding availability in 2026 and work with DGS to determine a feasible plan.

Planning Narrative for Outdoor Irrigation Hardware Needs

The Border Protection Stations (16 of 21 CDFA-owned facilities) do not use outdoor irrigation for landscaping or irrigation purposes. The only outdoor uses of water are cleaning boats with possible invasive species and supplying bee watering stations.

The only CDFA-owned facility that uses unmetered well water for outdoor irrigation is the GWSS - Arvin Field Station. CDFA takes immediate action to address repairs for irrigation, metal valves, and cooling systems. CDFA estimates irrigation usage of 129,000 to149,000 gallons annually at the GWSS - Arvin Field Station Greenhouse. Water is used to produce plants and rear insects for GWSS and ACP Biological Control Programs. The amount of water usage each year depends on the number of host plants produced in the greenhouses, and the summer weather. Without water for irrigation and swamp coolers, the host plants would die off in the summer when the outdoor temperature often reaches over 100 degrees Fahrenheit. CDFA will continue to work with DGS to determine a feasible solution for tracking conservation and use.

CDFA will continue to work with DGS to meet conservation goals where feasible.

Reporting on Outdoor Irrigation Hardware Water Efficiency Projects

CDFA immediately repairs leaks on irrigation PVC or metal valves. CDFA works with DGS in ensuring all landscaping hardware maintenance requirements and BMPs are met. Several efforts were made to reduce water use so CDFA cannot contribute to any one area of reduction. CDFA reduced water use by 16,536,411 gallons from 2010 to 2013, 13,282,100 gallons from 2013 to 2016, and 6,785,500 gallons from 2016 to 2018, for an average reduction of 3,279,283 gallons per year (76,404,011 2010 baseline – 40,331,900 used in 2021= total reduction of annual amount used of 36,072,111 gallons / 11 years = average amount used reduced by 3,279,283 gallons per year). This reduction was made in part due to the below efforts:

Landscape changes:

- 2010: Reduced landscape water used per the Governor's directive.
- 2014: CDFA reduced landscape irrigation, surveyed water outlets for leakage, and repaired low-cost leaks.
- 2018: CDFA completed an irrigation retrofit at the Meadowview Road Complex greenhouse. Updates included 16 hose bibs, 640 feet of old copper pipes, and 440 nozzle heads/sprayers with more efficient fixtures.

Region specific information:
Tulelake Border Protection Station:

- The well pump was replaced in 2014, improving water usage.
- The station has no outside water faucets (shutoffs were placed on all outside faucets) and no power washer. The only water used for agricultural duties is in five-gallon buckets for the cherry crusher.
- Compliant with USGS static levels –Upper Klamath Basin Groundwater Study.

All 16 Border Protection Stations: No watering since the mandatory state reductions were issued.

GWSS - Arvin Field Station: No more grass lawns.

Landscaping typically uses 50 percent or more of an agency's total water use. While landscaping serves critical functions, the accompanying irrigation hardware, if not properly installed and maintained, can contribute to water waste. By reviewing and inventorying all irrigation hardware, it is possible to achieve significant water savings.

Table 4.15: Summary of Outdoor Hardware Water Efficiency Projects Completed 2020 -Present or In Progress

Year Funded	Water Saved (Gallons/yr.)	Completed Hardware Water Efficiency Projects	Hardware Water Efficiency Projects in Progress
2020	0	0	0
2021	0	0	0
2022	NO CURRENT PROJECTS	0	0

Irrigation has already been reduced as much as possible. The information in Table 4.15 was derived from CDFA's internal data.

Planning Narrative for Irrigation Hardware Water Efficiency Projects

UPGRADES TO IRRIGATION HARDWARE COMPLETE

CDFA tracks overall water use and does not isolate water specifically used for landscaping. CDFA will consult with DGS' Office of Sustainability regarding methods other departments use in isolating landscaping water use. CDFA has and will continue to work with DGS when installing landscape irrigation. CDFA will consider drought-resistant plants when landscaping.

Reporting on Living Landscape Inventory

Table 4.16: All Facilities With > 500 Ft^2 of Living Landscape Inventory

Facilities with Landscape >500 Sq.	Total Turf (Ft^2)	Number Of Historic Sites or Memorial MWELO Landscape Area (Ft^2)	Climate Appropriate Landscape Area (Ft^2) Groundwater Basin Name	Irrigation Source is Groundwater (Yes or No)	Irrigation source is Surface Water (Yes or No)
Dorris Border Protection Station	0	0 (2,000)	0 (2,000)	Yes	No
GWSS - Arvin Field Station	18,000	0 (23,000)	23,000	No	Yes
Hornbrook Border Protection Station	0	0 (2,000)	0 (2,000)	Yes	No

Facilities with Landscape >500 Sq.	Total Turf (Ft^2)	Number Of Historic Sites or Memorial MWELO Landscape Area (Ft^2)	Climate Appropriate Landscape Area (Ft^2) Groundwater Basin Name	Irrigation Source is Groundwater (Yes or No)	Irrigation source is Surface Water (Yes or No)
Meadowview Road Complex	38,000	0 (18,300)	18,300	No	Yes
Needles Border Protection Station	0	0 (500)	0 (500)	Yes	No
Redwood Border Protection Station	0	0 (2,600)	0 (2,600)	Yes	No
San Bernardino Veterinary Laboratory	23,900	0 (0)	0	No	Yes
Truckee Border Protection Station	0	0 (21,800)	0 (21,800)	Yes	No
Winterhaven Border Protection Station	0	0 (11,300)	0 (11,300)	Yes	No

Landscape measurement estimates in Table 4.16 are approximate amounts found by using the measurement tool provided in Google Maps. Model Water Efficient Landscape Ordinance (MWELO) and climate appropriate landscape overlap so total measurements are duplicated in both columns of Table 4.14. Turf area measurement includes trees planted with grass. Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft^2 at all Border Protection Stations, but estimates provided in parenthesis to include surrounding areas.

Reporting Narrative on Living Landscape Inventory

CDFA-owned facilities with living landscape include:

- Dorris Border Protection Station includes a center divider on the freeway that is approximately 2,000 Ft^2 of trees and bushes.
- GWSS - Arvin Field Station has approximately 5,000 Ft^2 of trees lining the front of the facility and 18,000 Ft^2 of shrubbery and garden area.
- Hornbrook Border Protection Station has approximately 2,000 Ft^2 of trees lining the back of the parking area along the side of the freeway.
- Meadowview Road Complex has approximately 38,000 Ft^2 of grassy area with trees and 18,300 Ft^2 of other landscaping with shrubbery and trees. An additional ten acres at the back of the facility are currently undeveloped. CDFA has entered into an agreement with the USDA to build a laboratory on the land, so it was not counted toward the total landscaped area.
- Needles Border Protection Station has approximately 500 Ft^2 of trees and bushes lining the back of the parking area along the side of the freeway.
- Redwood Border Protection Station includes a center divider on the freeway that is approximately 2,600 Ft^2 of trees and bushes.
- San Bernardino Veterinary Laboratory has approximately 23,900 Ft^2 of grassy area with trees and shrubbery around the perimeter of the parking lot.
- The Truckee Border Protection Station includes a center divider on the freeway that is approximately 15,300 Ft^2 of trees and bushes and has an additional 6,500 Ft^2 of shrubbery around the perimeter of the parking lot along the side of the freeway.
- Winterhaven Border Protection Station is next to approximately 11,300 Ft^2 of trees and shrubbery along the side of the freeway.

The landscaping around the Border Protection Stations is chosen specifically for the stations' climates and is meant to self-maintain and not require watering. The Border Protection Stations do not have historical features or memorials.

CDFA has and will continue to work with DGS experts when considering any landscaping changes, including living landscape.

Reporting on Living Landscape Upgrades for the Next 5 Years

Planning Outline PO4:b: Planned Projects for Living Landscape Upgrades for the Next 5 Years

Landscape >500 Ft^2) Facility Name	Replace Turf (Ft^2)	MWELO landscape area Upgrade (Ft^2)	Climate appropriate landscape Upgrade area (Ft^2)	Date for Achieving Upgrades
Dorris Border Protection Station	0	0 (2,000), MWELO LANDSCAPE ACHIEVED	0 (2,000)	Complete
GWSS - Arvin Field Station	0	23,000, MWELO LANDSCAPE ACHIEVED	23,000	Complete
Hornbrook Border Protection Station	0	0 (2,000), MWELO LANDSCAPE ACHIEVED	0 (2,000)	Complete
Meadowview Road Complex	38,000	18,300, MWELO LANDSCAPE ACHIEVED	18,300	Complete
Needles Border Protection Station	0	0 (500), MWELO LANDSCAPE ACHIEVED	0 (500)	Complete
Redwood Border Protection Station	0	0 (2,600), MWELO LANDSCAPE ACHIEVED	0 (2,600)	Complete
San Bernardino Veterinary Laboratory	23,900	0, MWELO LANDSCAPE ACHIEVED	0	Complete
Truckee Border Protection Station	0	0 (21,800), MWELO LANDSCAPE ACHIEVED	0 (21,800)	Complete
Winterhaven Border Protection Station	0	0 (11,300), MWELO LANDSCAPE ACHIEVED	0 (11,300)	Complete

Turf area measurement includes trees planted with grass. Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft^2 at all Border Protection Stations but estimates provided in parenthesis to include surrounding areas.

CDFA-owned facilities with living landscape include:

- Dorris Border Protection Station includes a center divider on the freeway that is approximately 2,000 Ft^2 of trees and bushes.
- GWSS - Arvin Field Station has approximately 5,000 Ft^2 of trees lining the front of the facility and 18,000 Ft^2 of shrubbery and garden area.
- Hornbrook Border Protection Station has approximately 2,000 Ft^2 of trees lining the back of the parking area along the side of the freeway.
- Meadowview Road Complex has approximately 38,000 Ft^2 of grassy area with trees and 18,300 Ft^2 of other landscaping with shrubbery and trees. An additional ten acres at the back of the facility have yet to be developed. CDFA has entered into an agreement with the USDA to build a laboratory on the land, so it was not counted toward the total landscaped area.
- Needles Border Protection Station has approximately 500 Ft^2 of trees and bushes lining the back of the parking area along the side of the freeway.
- Redwood Border Protection Station includes a center divider on the freeway that is approximately 2,600 Ft^2 of trees and bushes.
- San Bernardino Veterinary Laboratory has approximately 23,900 Ft^2 of grassy area with trees and shrubbery around the perimeter of the parking lot.
- The Truckee Border Protection Station includes a center divider on the freeway that is approximately 15,300 Ft^2 of trees and bushes and has an additional 6,500 Ft^2 of shrubbery around the perimeter of the parking lot along the side of the freeway.
- Winterhaven Border Protection Station is next to approximately 11,300 Ft^2 of trees and shrubbery along the side of the freeway.

Planning Narrative on Living Landscape Upgrades for the Next 5 Years

CDFA has no new landscape projects. CDFA significantly reduced plants in small, landscaped areas to reduce water use per the Governor's directives in 2010 and 2014. CDFA has and will continue to work with DGS experts when considering any landscaping changes, including living landscape.

Planning Narrative for Remaining non MWELO Compliant Living Landscape Upgrades

CDFA has and will continue to work with DGS experts when considering any landscaping changes, including living landscape.

Reporting on Living Landscape Water Efficiency Projects 2020 – Present

Table 4.17: Summary of Completed Living Landscaping Water Efficiency Projects

Year Funded	Est Annual Water Savings (Gallons)	Sum of MWELO Landscape installed (Ft^2)	Sum of Climate Appropriate Landscape Installed (Ft^2)
2020	0	0	0
2021	0	0	0
2022	0	0	0

CDFA has had no new landscape projects since 2014. CDFA significantly reduced plants in small, landscaped areas to reduce water use per the Governor's directives in 2010 and 2014.

In 2020, CDFA used 39,784,800 gallons of water for all 21 CDFA-owned facilities. The four CDFA facilities over 20,000 Ft^2 used 17,881,800 gallons of water in 2020 (45 percent of the total water used by CDFA for owned facilities). CDFA will work with DGS to meet use reduction goals and certification requirements.

Planning Narrative on Living Landscape BMPs

CDFA works with DGS in ensuring all living landscape requirements and BMPs are met.

CDFA reports any leaks and sprinkler malfunctions immediately to DGS to prevent wasting water and water runoff, and ensure sprinklers are directing water to only landscape areas, avoiding hardscapes such as parking lots, sidewalks, or other paved areas.

Reporting on Large Living Landscape Inventory (>20,000 Ft²)

CDFA has significantly reduced plants in landscaped areas.

Table 4.18: Large Landscape Inventory and Water Budget Requirements

Name of Facility Sites/Locations with > 20,000 Ft² of Landscaping	Landscape Area per Facility	Water Budget per Facility (monthly gallons)	CalEPA WaterSense or Irrigation Association Certified Staff per Facility
GWSS - Arvin Field Station	23,000 Ft²	95,239	0
Meadowview Road Complex	13,450 Ft² (56,300 Ft²)	54,863 (229,650)	0
San Bernardino Veterinary Laboratory	0 Ft² (23,900 Ft²)	0 (90,112)	0
Truckee Border Protection Station	0 Ft² (21,800 Ft²)	0 (70,039)	0

Landscape measurement estimate in Table 4.18 is an approximate amount found by using the measurement tool provided in Google Maps (additional details for parenthesis noted under "Reporting on Achieving Large Living Landscape Requirements"). Water budget data in Table 4.18 was estimated using EPA's Water Budget Tool. CDFA has significantly reduced plants in small, landscaped areas. Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft² at all Border Protection Stations but estimates provided in parenthesis to include surrounding areas.

Reporting on Achieving Large Living Landscape Requirements

Large landscape areas over 20,000 Ft² include:

- CDFA's GWSS - Arvin Field Station (has approximately 5,000 Ft² of trees lining the front of the facility and 18,000 Ft² of shrubbery and garden area.) - CDFA has limited watering landscape trees from once a month in winter months to twice a month in summer months. Dead trees have been removed for safety concerns.

- Meadowview Road Complex - has approximately 38,000 Ft² of grassy area with trees and 18,300 Ft² of other landscaping with shrubbery and trees. There is also an additional ten acres at the back of the facility that has yet to be developed. CDFA entered into an agreement with the USDA to build a laboratory on the ten acres of land, so it was not counted toward the total landscaped area. Since total owned space does not match the Google maps

sum amounts (parking, structures, and landscape), CDFA also noted the area for the greenhouse structure (13,450 Ft^2).

- San Bernardino Veterinary Laboratory - has approximately 23,900 Ft^2 of grassy area with trees and shrubbery around the perimeter of the parking lot but this area is not owned by CDFA. CDFA owns 1,700 Ft^2 for this facility (including structure, parking, etc.).

- The Truckee Border Protection Station includes a center divider on the freeway that is approximately 15,300 Ft^2 of trees and bushes and has an additional 6,500 Ft^2 of shrubbery around the perimeter of the parking lot along the side of the freeway. These plants are not watered by CDFA, and this area is not owned by CDFA. CDFA owns 1,308 Ft^2 for this facility (including structures, overhang, etc.).

CDFA has significantly reduced plants in landscaped areas for all Border Protection Stations. Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft^2 at all Border Protection Stations but estimates provided in parenthesis to include surrounding areas.

CDFA works with DGS in ensuring all living landscape requirements and BMPs are met. These BMPs include efforts to:

- Prioritize and assign value to plants within a landscape.

- Prioritize survival of trees and large shrubs during drought or other water shortages.

- Water trees and shrubs as needed.

- Refresh mulch as needed and cover bare soil with a minimum of 3 inches of mulch.

- Adjust the irrigation schedule for seasonal changes.

- Test irrigation systems monthly to check for leaks and misalignment, and other malfunctions. Immediately pursue repairs using the correct parts. Adjust irrigation systems as needed.

- Water early in the morning or in the evening when wind and evaporation are lowest (never watering between 10am and 6pm).

- Prevent runoff by ensuring sprinklers are directing water to only landscape areas, avoiding hardscapes such as parking lots, sidewalks, or other paved areas. Ensure no irrigation water is permitted to leave the site.

- Use Water Use Classifications of Landscape Species (WUCOLS) to find plant water use requirements and only watering landscapes according to the plant water needs.
- Plant species native to the climate zone.
- Use bio-swales and other forms of rainwater capture to keep water onsite.
- Incorporate plantings for pollinators.
- When planting new areas or replacing plants, add compost to the soil (entire planting areas, not just planting holes) at a rate of 4 cubic yards per 1,000 Ft^2 to a depth of six inches unless contradicted by a soil test.
- Fix leaks immediately.
- Install check valves, swing joints, and replace nozzles as needed.
- Install faucet timers for hose or hand irrigation.
- Install shut-off nozzles or quick-couplers for all hoses.

Planning Outline PO4:c: Achieving Large Living Landscape Area Requirements

Facility Name	Landscaping Ft^2 to be upgraded to MWELO standards	Water Budget per Facility in Gallons	Ground Water Basin	# of staff Needing CalEPA WaterSense certification	Date for Achieving
MWELO STANDARDS ACHIEVED					

MWELO is a statewide water efficiency law for new and renovated landscapes in California over 5,000 Ft^2. All CDFA-owned facilities with 5,000 Ft^2 landscapes meet MWELO standards.

Truckee Border Protection Station was identified in the 2021 Roadmap as a large landscape area due to a center divider on the freeway and surrounding areas that are approximately 15,300 Ft^2 of trees and bushes and 6,500 Ft^2 of shrubbery around the perimeter of the parking lot along the side of the freeway (21,800 Ft^2 total). CDFA only owns 1,308 Ft^2, including the structure and parking, so this location was removed from the Planning Outline Table because it is smaller than the required reporting size. With an annual water budget of approximately $21,000, the Truckee Border Protection Station pulls approximately 3,373,488 gallons of water from Martis Valley basin (6-067) each year and meets MWELO

standards. (Landscaping and outdoor irrigation are not used at Border Protection Stations, so landscaping is counted as 0 Ft^2 at all Border Protection Stations but estimates provided of surrounding areas for context.)

Planning Narrative on Achieving Large Living Landscape Requirements

NO LARGE LANDSCAPES

Each state agency is responsible for monitoring water use and reporting baseline and annual water use for compliance with the water use reduction targets. CDFA's water use data is available through Energy Star. Water use is reported to the Energy Star website based on information available on water company invoices or reasonable estimates for facilities that use well water.

Critically Over-drafted Groundwater Basins and Water Shortage Contingency Plans

Reporting on Buildings in Critically Over-drafted Groundwater Basins

Table 4.19: Buildings in Designated Critically Over-drafted Groundwater Basins

Building Name	Basin Name	Amount of water Used 2021 (Gallons)	Amount of water Used 2022 (Gallons)
NO FACILITIES			

A basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts. Overdraft occurs where the average annual amount of groundwater extraction exceeds the long-term average annual supply of water to the basin.

Reporting on Buildings with Urban Water Shortage Contingency Plans

Table 4.20: Buildings with Urban Water Shortage Contingency Plans

Building Name	Name of Water Supplier with Urban Water Shortage Contingency Plans	Year of Publication or Update
Anaheim Laboratory	Anaheim Public Utilities	2020
Blythe Border Protection Station	City of Blythe	2021
Glassy Winged Sharpshooter Project - Arvin Field Station	Arvin Community Services District	2020
Long Valley Border Protection Station	California Water Service	2020
Meadowview Road Complex	Sacramento County Water Agency	2020
Redwood Border Protection Station	City of Crescent City	2015
Truckee Border Protection Station	Truckee Donner Public Utility District	2020
Tulelake Border Protection Station	California Water Service	2020
Vidal Border Protection Station	California Water Service	2020

All CDFA owned facilities with urban water shortage contingency plans are listed in Table 4.20. Water contingency plans are not available for the Alturas Border Protection Station (City of Alturas), Benton Border Protection Station (Benton Utilities), Dorris Border Protection Station (City of Dorris), Hornbrook Border Protection Station (Hornbrook Community Services District), Meyers Border Protection Station (Meyers Water Company), Mountain Pass Border Protection Station (Liberty Utilities), Needles Border Protection Station (City of Needles), San Bernardino Veterinary Laboratory (City of San Bernardino Water Department), Smith River Border Protection Station (Smith River Community Services District), Topaz Border Protection Station (Liberty Utilities), Turlock Veterinary Laboratory (City of Turlock), and Winterhaven Border Protection Station (Imperial Irrigation Water District). CDFA will consult water shortage contingency plans from utilities (referenced in Table 4.20) and Department of Water Resources' plan when considering water use reductions.

Planning Narrative for Urban Water Shortage Contingency Plans

NO BUILDINGS SUBJECT TO PLAN

CDFA has and will continue to perform immediate repairs of irrigation systems, swamp cooling systems, fixtures, irrigation, and plumbing.

Reporting Narrative for Department's Contingency Plan

CDFA will work with DGS to determine a contingency plan if applicable for CDFA locations.

Planning Narrative on Department's Contingency Plan

CDFA will work with DGS to determine a contingency plan if applicable for CDFA locations.

CHAPTER 5 - SUSTAINABLE OPERATIONS

Greenhouse Gas Emissions (GHGe)

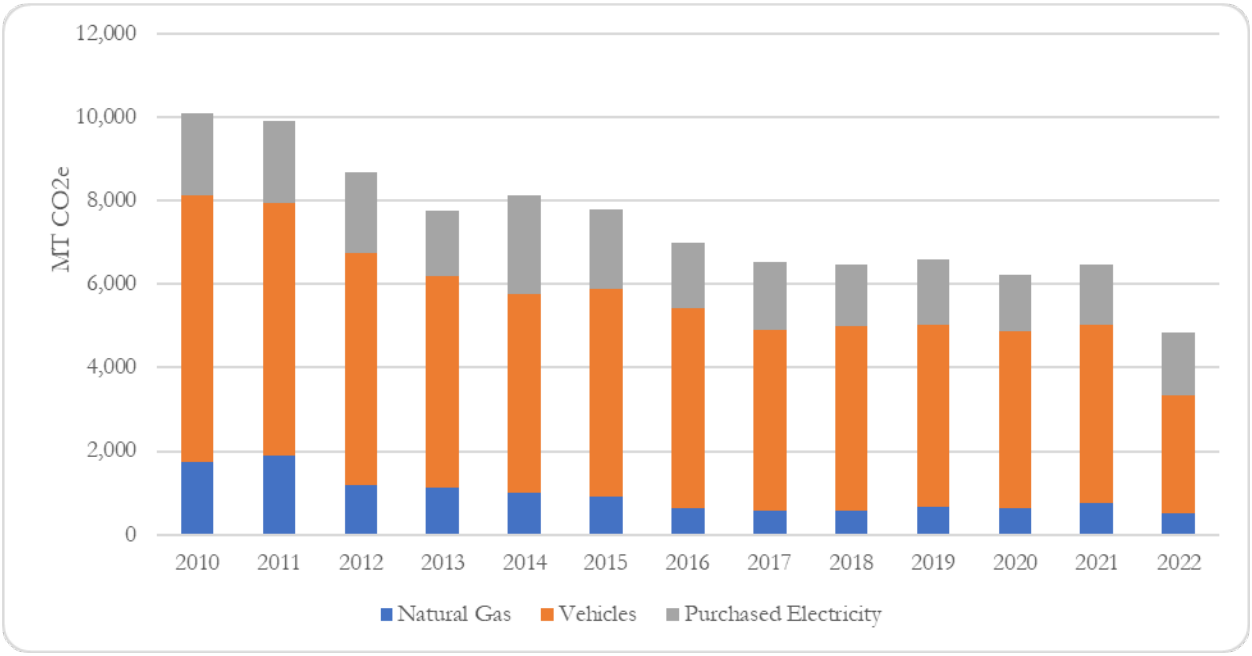
Table 5.1: GHGe since 2010 (Metric Tons)

Emissions Source	Natural gas	Vehicles	Purchased Electricity	Total
2010 Baseline	1,752	6,381	1,974	10,107
2011	1,887	6,065	1,966	9,918
2012	1,182	5,558	1,948	8,688
2013	1,115	5,081	1,564	7,760
2014	992	4,782	2,350	8,124
2015	918	4,978	1,901	7,796
2016	649	4,782	1,548	6,980
2017	571	4,332	1,639	6,542
2018	581	4,407	1,479	6,467
2019	663	4,360	1,576	6,599
2020	626	4,249	1,347	6,222
2021	771	4,249	1,465	6,485
2022	503	2,844	1,498	4,845
Percent Change since Baseline	-71%	-55%	-24%	-52%

The information in Table 5.1(Carbon Dioxide Equivalent (CO_2e) (Tons = t)) was derived from CRIS.

Table 5.1 contains the metric tons of GHGe (CO_2e) (Tons = t)) CDFA reported to CalEPA in the CRIS report. This GHGe reduction has been a result of several efforts CDFA has made through fleet purchases and building energy use reductions. CDFA has increased the total number of PHEVs and BEVs in the Department's fleet, reducing the GHGe produced from fuel use. CDFA has reduced the building energy used by increasing employee awareness, enrolling in DRP, decreasing load use in server rooms, utilizing energy saver mode when equipment is not in use, and setting timers for lights to automatically turn off outside of regular work hours.

Graph 5.1: GHGe since 2010



Planning Narrative for Current GHGe Reduction Goals and 2035 Reduction Goals Strategies

CDFA is committed to the ZEV and Hybrid First Purchasing Mandate 4121.1 and meeting 50 percent ZEVs by 2025 and thereafter, decreasing GHGe.

Carbon Inventory Worksheet

Planning Narrative for Carbon Inventory Worksheet

CARBON INVENTORY WORKSHEET COMPLETE

Building Design and Construction

New Building Leadership in Energy and Environmental Design (LEED) Certification

CDFA works with DGS to ensure compliance with EO B-18-12 and SAM 1815.3. This includes:

- Acquiring Leadership in Energy and Environmental Design (LEED) Silver/Gold certification or higher for all new buildings, major renovation projects and build-to-suit leases over 10,000 Ft^2. DGS sets all building standards for construction and confirms appropriate LEED certification is met.
- Meeting applicable California Green Building Standards Code (CALGreen) Tier 1 measures for all new CDFA-owned buildings under 10,000 Ft^2.

Table 5.2: New Building Construction since July 1, 2012

Building Name	LEED Certification Type & Level Achieved	Commissioning Performed (Y/N)
Anaheim Laboratory	Project completed. LEED certification not required because building structure is less than 10,000 Ft^2.	Yes
Blythe Border Protection Station	Preliminary plans to be completed December 2023. Acquisition phase in progress (to be completed May 2024).	In Progress
Mountain Pass Border Protection Station	Project completed. LEED certification not required because building structure is less than 10,000 Ft^2.	Yes
Needles Border Protection Station	Initial Study complete.	In Progress
Tulare Veterinary Laboratory	Project completed. LEED certification not required because building structure is less than 10,000 Ft^2.	Yes
Turlock Veterinary Laboratory	Acquisition & project concept phase complete. Design build phase (construction) in progress (to be completed July 2025). *	In Progress

The information in Table 5.2 was derived from CDFA's internal data.

*The new Turlock Veterinary Laboratory project was divided into two pieces: the construction of the new Turlock Veterinary Laboratory and the construction of the solar field. The design build phase for the laboratory building began in June 2023 and construction is projected to be completed by July 2025. The solar field is in the planning and development phase. Construction is projected to begin by 2025.

Planning Narrative of Table 5.2: New Building Construction since July 1, 2012

State agencies shall implement mandatory measures and relevant and feasible voluntary measures of the CALGreen, Part 11, related to indoor environmental quality (IEQ) that are in effect at the time of new construction or alteration and shall use adhesives, sealants, caulks, paints, coatings, and aerosol paints and coatings that meet the volatile organic chemical (VOC) content limits specified in *CALGreen*.
CDFA strongly encourages implementation of CALGreen measures related to IEQ and will work with DGS RESD on all new building design and construction projects, ensuring due diligence with CALGreen measures.

LEED for Existing Buildings Operations and Maintenance (EBOM)

CDFA is compliant with EO B-18-12 and SAM Chapter 1815.3. All state buildings over 50,000 Ft^2 have completed LEED Existing Buildings Operations and Maintenance (EBOM) certification within the last 3 years and meet an Energy Star rating of 75 to the maximum extent cost effective. CDFA works closely with DGS to ensure that sustainable operations are still in place.

Table 5.3: Large Building LEED Certification for Existing Buildings

Number of Buildings over 50,000 Ft^2 and eligible for LEED EBOM	Number of Building over 50,000 Ft^2 that have achieved LEED EBOM	Percent of Buildings over 50,000 Ft^2 that have achieved LEED EBOM
3	3	100%

CDFA leases two facilities (1220 N Street, Sacramento and 3645 E Wier/Chipman, Phoenix) and owns one facility (Meadowview Road Complex: 3298-3294 Meadowview Road, Sacramento) over 50,000 Ft^2.

Planning Narrative for Table 5.3 Large Building LEED Certification

CDFA works with DGS in ensuring all requirements are met regarding LEED standards. All three applicable CDFA facilities are LEED certified. CDFA previously had more LEED EBOM certified facilities, but this number has been

reduced due to an increase in telework resulting in a reduction in the total number of CDFA facilities.

Indoor Environmental Quality (IEQ)

Daylighting in New Construction

When accomplishing alterations, modifications, and maintenance repairs and when relevant and feasible, state agencies shall implement the mandatory and voluntary measures of the CALGreen, Part 11, related to IEQ.

CDFA uses low emitting furnishings, cleaning products, and cleaning procedures to maintain IEQ.

CDFA has strongly encouraged implementation of CALGreen measures related to IEQ. CALGreen requirements are specified in facility leases and construction contracts as appropriate. CDFA disseminated CALGreen requirements to employees, and CDFA has and will continue to work with DGS RESD on all materials applicable to CALGreen requirements; including but not limited to new construction and renovation, furnishings, cleaning products, cleaning procedures, and HVAC operation.

New and ongoing projects - building project measures from CALGreen related to IEQ:

- Using only adhesives, sealants, caulks, paints, coatings, and aerosol paints and coatings that meet the volatile organic chemical content limits specified in CALGreen.
- Using carpet systems, carpet cushions, composite wood products, resilient (e.g., vinyl) flooring systems, and thermal insulation, acoustical ceilings and wall panels that meet the volatile organic compounds emission limits specified in CALGreen.
- All relevant mandatory and all feasible voluntary measures from CALGreen Division 5.5 and Appendix section A5.5.
- Specialized air treatment for buildings where air quality standards are routinely exceeded, including Minimum Efficiency Reporting Value 13 or 16 air filters and ozone removing air cleaning devices.
- Commissioning to ensure proper operation of all building systems, including delivering the required amount of outside air and outdoor airflow monitoring systems.

- An IEQ Construction Management Plan that meets CALGreen Sections A5.501.1-A5.504.2. Furnishings

- CDFA purchases furniture through the California Prison Industries Authority (CalPIA). CALPIA manufacturing and associated products are compliant with the DGS' Purchasing Standard and Specifications (Technical Environmental Bid Specification 1-09-71-52). CDFA follows guidance from DGS to ensure that all furniture and seating purchased by the department complies with either:

    - The DGS' Purchasing Standard and Specifications (Technical Environmental Bid Specification 1-09-71-52, Section 4.7) or

    - ASHRAE Standard 189.1-2011 (Section 8.4.2.5).

Planning Narrative for CALGreen Tier 1 IEQ Measures

CDFA works with DGS to ensure that all cleaning products meet Green Seal (GS) Standard GS-37: Cleaning Products for Industrial and Institutional Use.

CDFA works with the facility managers for each location to ensure that:

- All vacuum cleaners used in Department facilities achieve the Carpet and Rug Institute Seal of Approval.

- Entryways are maintained as specified in CALGreen Section A5.504.5.1.

- Cleaning procedures meet the Green Seal -42 standard.

- Cleaning procedures follow the Carpet and Rug Institute's Carpet Maintenance Guidelines for Commercial Applications.

- Cleaning procedures meet the California Occupational Safety and Health Administration, General Industry Safety Orders, Title 8, Section 3362.

Planning Narrative for IEQ-New Buildings and Renovation Measures

CDFA strongly encourages implementation of CALGreen measures related to IEQ and will work with DGS RESD on all new building design and construction projects, ensuring due diligence with CALGreen measures.

Planning Narrative for Compliance with Furnishing Standards

CDFA follows the IEQ Construction Management Plan that meets CALGreen Sections A5.501.1-A5.504.2; regarding furnishings. CDFA uses low emitting furnishings to maintain IEQ. CDFA disseminated CALGreen requirements to employees; and CDFA has and will continue to work with DGS RESD on all materials applicable to CALGreen requirements; including but not limited to furnishings.

CDFA purchases furniture through CalPIA. CALPIA manufacturing and associated products are compliant with the DGS' Purchasing Standard and Specifications (Technical Environmental Bid Specification 1-09-71-52). CDFA follows guidance from DGS to ensure that all furniture and seating purchased by the department complies with either DGS' Purchasing Standard and Specifications (Technical Environmental Bid Specification 1-09-71-52, Section 4.7) or ASHRAE Standard 189.1-2011 (Section 8.4.2.5).

Planning Narrative on Using Green Seal Cleaning Products

GREEN CLEANING PRODUCTS STANDARDS ACHIEVED

CDFA works with DGS to ensure that all cleaning products meet Green Seal (GS) Standard GS-37: Cleaning Products for Industrial and Institutional Use.

Planning Narrative for Cleaning Procedures – Various Standards

CLEANING PROCEDURES STANDARDS ACHIEVED

CDFA works with the facility managers for each location to ensure that:

- All vacuum cleaners used in Department facilities achieve the Carpet and Rug Institute Seal of Approval.
- Entryways are maintained as specified in CALGreen Section A5.504.5.1.
- Cleaning procedures meet the Green Seal -42 standard.
- Cleaning procedures follow the Carpet and Rug Institute's Carpet Maintenance Guidelines for Commercial Applications.
- Cleaning procedures meet the California Occupational Safety and Health Administration, General Industry Safety Orders, Title 8, Section 3362.

Planning Narrative for Heating, Ventilation, and Air Conditioning (HVAC) Operations

CDFA works with DGS to ensure:

- HVAC systems provide no less than the required minimum outdoor air requirements
- HVAC systems are inspected at least annually, and all HVAC inspections and maintenance are documented in writing. These inspections must include:
    - Verifying minimum outdoor airflows using hand-held airflow measuring instruments.
    - Confirming that air filters are clean and replaced based on manufacturer's specified interval.
    - Confirming that air filters used have a minimum efficiency rating value rating of no less than 11.
    - Verifying that all outdoor dampers, actuators, and linkages operate properly.
    - Checking condition of all accessible heat exchanger surfaces for fouling and microbial growth, with action taken when fouling is found.
    - Checking the first 20 feet of ductwork downstream of cooling coils for microbial growth and resolving any issues if growth is found.
    - Ensuring that cooling towers are properly maintained and that records of chemical treatment are kept. Retrofit to prevent cooling tower plumes closer than 25 feet to any building air intake.
- A computer-based preventative maintenance program is in place for all HVAC equipment.
- Buildings are purged with outdoor air sufficient for three complete air changes or the minimum ventilation rate allowed in Section 120.1(c)2 of Title 24 for one hour before occupancy.

Planning Narrative for HVAC Inspection Requirements

HVAC INSPECTION REQUIREMENTS ACHIEVED

Integrated Pest Management (IPM)

Reporting on IPM plans

There is no pest control contract at GWSS - Arvin Field Station. CDFA's Senior Agricultural Bio Technician, holding a Qualified Applicator License, conducts pest control activities at the facility.

Table 5.4: IPM Contracts

Pest Control Contractor Name	IPM Specified (Y/N)	Contract Renewal Date
EcoGuard Pest Management	Yes	Data unavailable
Baron Services	Yes	12/31/25
Ecolab	Yes	11/30/25

The information in Table 5.4 was derived from CDFA's internal data and DGS. CDFA relies on DGS to track and renew the contract renewal date for EcoGuard Pest Management.

Planning Narrative for Pest Control Contracts

IPM REQUIREMENTS ACHIEVED

Fossil Fuel Landscaping Equipment Replacement with Low Emitting Landscaping Equipment

Planning Narrative for Replacing Fossil Fuel Landscaping Equipment

CDFA used to use a gas-powered weed eater at GWSS - Arvin Field Station but has discontinued use since there is no longer a grass lawn.

CDFA will evaluate the feasibility for replacing fossil fuel equipment inventory at:

- Alturas Border Protection Station (2 snow blowers, 1 weed eater, 1 pressure washer).
- Benton Border Protection Station (1 pressure washer).
- Blythe Border Protection Station (1 pressure washer).
- Dorris Border Protection Station (2 snow blowers, 2 weed eaters, 1 pressure washer).
- Hornbrook Border Protection Station (2 snow blowers, 2 weed eaters, 1 pressure washer, 1 auger, 1 lawn mower).
- Long Valley Border Protection Station (1 snow blower, 1 weed eater, 1 pressure washer).
- Meyers Border Protection Station (2 snow blowers, 1 pressure washer).
- Mountain Pass Border Protection Station (1 pressure washer).
- Needles Border Protection Station (1 pressure washer).
- Redwood Border Protection Station (1 snow blower, 1 weed eater, 1 pressure washer).
- Smith River Border Protection Station (1 weed eater, 1 pressure washer).
- Topaz Border Protection Station (1 snow blower, 1 weed eater, 1 pressure washer).
- Truckee Border Protection Station (3 snow blowers, 2 weed eaters, 1 pressure washer).

- Tulelake Border Protection Station (2 snow blowers, 1 weed eater, 1 pressure washer).
- Vidal Border Protection Station (1 pressure washer).
- Winterhaven Border Protection Station (1 pressure washer).

Gas powered snowblowers are needed for removing the large quantity of snow moved at the above locations during the winter season. CDFA will continue to evaluate feasible electric snowblower alternatives. CDFA anticipates replacing other fossil fuel equipment inventory by 2025.

Waste and Recycling Programs

Designated Waste and Recycle Coordinator and Program Basics

All Border Protection Stations have adequate signage for recycling. CDFA's GWSS - Arvin Field Station identified potential for additional signs and will implement them where feasible.

Reporting Narrative on Designated Waste and Recycle Coordinator and Program Basics

It is CDFA's policy to recycle as much as possible and CDFA encourages all employees to do so. CDFA's Office of Information Technology sends Department-wide e-mails at least once a year and the BPMU directly notifies branches as soon as the unit becomes aware of the planned disposals. When there is electronic waste (e-waste), employees must submit a survey request to dispose of the item, and are informed that e-waste must be donated to an approved organization or recycled through CalPIA or an authorized recycler listed on CalRecycle's webpage with a waiver from CalPIA (per MM17-06).

Pursuant to SB 1106 (Lowenthal, Et. al Chapter 590, Statutes of 2006), CDFA has designated a waste and recycling coordinator to perform the duties imposed pursuant to this chapter, including implementing the integrated waste management plan. The coordinator completes the annual State Agency Reporting Center (SARC) Report and ensures that disposals are properly conducted, and that materials are recycled as often as possible.

Some of the steps CDFA has instituted to ensure it recycles as much as possible and meets the recycled content purchasing requirements set forth in SB 1106 include:

- CDFA's waste and recycling coordinator ensures at least 50 percent of CDFA's purchases are recycled products. This includes at least 50 percent of the total dollars spent for each product category (paper products, printing, mulch, compost, glass, lubricating oils, plastic, paint, antifreeze, tires, and metal).
- CDFA's Contracts Office requires contractors to certify at least 50 percent use of recycled products, or to the maximum extent economically feasible, in the performance of the contracted activities.
- CDFA's property controller and waste and recycling facilitator ensure all electronics, used toner cartridges, and batteries are recycled.
- CDFA's property controller coordinates recycling and donations where applicable and encourages all employees to donate or recycle obsolete office supplies (such as binders, folders, desk organizers, staplers, etc.) whenever feasible.
- CDFA's BPMU ensures paper recycling receptacles and recycling services are provided for all CDFA facilities. Paper recycling receptacles are available throughout the occupied space at each CDFA facility. These receptacles are regularly filled and emptied to ensure CDFA meets recycling goals.
- CDFA's BPMU provides recycling receptacles for bottles and cans where feasible and coordinates recycler collection for eligible facilities.

*CDFA disposal has been reduced with the increase of remote work.

Planning Narrative on Designated Waste and Recycle Coordinator and Program Basics

DESIGNATED WASTE, RECYCLE COORDINATOR, AND PROGRAM BASICS ACHIEVED

CDFA's Border Protection Stations do not have an annual review scheduled to determine the adequacy and condition of receptacles for recyclable material and of associated signage, education, and staffing. CDFA plans to determine the feasibility of having a station review completed as soon as possible. CDFA will continue to work with DGS to ensure all requirements are met.

State Agency Reporting Center (SARC) Report

Table 5.5: SARC Report on Total Waste per Capita

Per Capita Disposal Rate	Waste Per Capita 2021	Waste Per Capita 2022	Total Waste 2021	Total Waste 2022	Percent Change from 2020/2021
0.60	0.4	0.4	96.54 tons	96.54 tons	0%

The information in Table 5.5 was derived from the SARC Report and information provided by DGS. Per capita was determined by referring to the total waste (DGS quoted) divided by the number of employees listed in the SARC Report.

Reporting Narrative on SARC Report on Total Waste per Capita

PER CAPITA DISPOSAL RATE ACHIEVED

CDFA has met the requirements of AB 2812, providing adequate receptacles, signage, education, and staffing, as well as arranging for recycling services. CDFA exceeded the disposal target rate, set by Cal Recycle, of 0.60 per capita. Some of the steps taken to exceed the waste per capita goals set forth by Cal Recycle and SB 1106.

Planning Narrative on SARC Report on Total Waste per Capita

CDFA supports waste prevention: actions or choices that reduce waste and prevent the generation of waste in the first place; and reuse: using an object or material again, either for its original purpose or for a similar purpose, without significantly altering the physical form of the object or material.

CDFA follows all current recycling and disposal requirements and will continue to endeavor to increase recycling to ensure the future and well-being of California's natural resources.

CDFA will continue to work with DGS to ensure all requirements are met.

Recycling Program and Practices

Reporting Narrative on Recycling Program and Practices

Recycling is the practice of collecting and diverting materials from the waste stream for remanufacturing into new products, such as recycled-content paper. Stewardship programs help collect and recycle carpets, paints, pharmaceuticals and sharps, and mattresses. AB 341, Mandatory Commercial Recycling (Chesbro, Chapter 476, Statutes of 2011) requires businesses and public entities that generate four cubic yards or more of commercial solid waste per week to arrange for recycling services under the goal of source reducing, recycling, or composting 75 percent of solid waste generated statewide.

CDFA meets all recycling goals. All Border Protection Stations have adequate signs for recycling. Some of the steps taken to meet the recycling goals are listed above Table 5.5. Materials CDFA recycles include paper, bottles, cans, electronics, plastic, metal, batteries, toner, and other office supplies. CDFA has waste and recycling collection services in place for all CDFA facilities. To meet the policy of the state of California to recycle as much as possible, CDFA will continue to recycle and donate wherever feasible.

Planning Narrative on Recycling Program and Practices

Extra containers for recycling and green waste will be provided from refuse service provider soon for GWSS - Arvin Field Station.

CDFA Border Protection Stations will evaluate the feasibility of having a station review to determine the adequacy and condition of receptacles for recyclable material and of associated signage, education, and staffing completed as soon as possible.

CDFA will continue to work with DGS to ensure all requirements are met.

Organics Recycling

Reporting Narrative on Organic Recycling Program and Practices

CDFA abides by AB 1826 (Chesbro, Chapter 727, Statutes of 2014) which requires that state agencies arrange for recycling services for organic waste. Organic waste includes:

- Food waste.
- Green waste.
- Landscape and pruning waste.
- Nonhazardous wood waste.
- Food-soiled paper.

This law requires that each state agency recycle organic material on or by the following dates based on number of materials generated:

- Eight or more cubic yards of organic material per week-April 1, 2016.
- Four or more cubic yards of organic material per week-January 1, 2017.
- Four or more cubic yards of solid waste per week-January 1, 2019.
- Two or more cubic yards of solid waste per week if statewide disposal of organic waste is not decreased by half-January 1, 2020.

Note: Solid waste means trash, recycling, and organics. This is different than AB 341, which is trash only.

The exemption under 42649.82 (e)(3)(E) related to businesses that generate one cubic yard or less of organic waste is no longer in effect. Furthermore, CalRecycle has extended the current AB 1826 rural exemption until December 31, 2026.

CDFA maintains mandatory commercial recycling and organic recycling programs, per SB 1383 (Lara, Chapter 395, Statutes of 2016), including ensuring that properly labeled recycling containers are available to collect bottles, cans, paper, cardboard, food waste, and other recyclable materials. SB 1383 builds upon these efforts by identifying non-local entities and expanding the definition

of organic waste to include food scraps, landscape and pruning waste, organic textiles and carpets, lumber, wood, manure, biosolids, digestate, and sludges. Commercial edible food recovery begins January 1, 2024, for Tier 2 generators which most state agencies would fall under. SB 1383 requires that by 2025 California will recover 20 percent of edible food that would otherwise be sent to landfills, to feed people in need.

Under SB 1383, non-local entities include:

- Special districts.
- Federal facilities.
- Prisons.
- State Park facilities.
- Public universities and community colleges.
- County fairgrounds.
- State agencies.

When appropriate, CDFA:

- Reuses used potting-soil on outdoor fields.
- Recycles organic wood/tree materials at Metropolitan Recycle.
- Collects and recycles other recyclable materials.

CDFA's 16 Border Protection Stations do their own landscaping, including mowing, edging, and tree and hedge trimming as needed. All trimmings and clippings are recycled separately from other trash and recyclables based on the policies of the cities and counties where the Border Protection Stations are located, and each Border Protection Station, if required, has organics recycling services in place.

There are clearly marked separate organic waste bins at CDFA's GWSS - Arvin Field Station and Meadowview Road Complex locations, but more signs and receptacles are needed (especially in common areas).

CDFA began providing an organic waste receptacle (green waste bin) at the Turlock Veterinary Laboratory as of September 2022. All impacted staff have been instructed as to what goes in the bins.

CDFA does not have separate waste receptacles for organic waste, garden clippings, or recycling at the San Bernardino Veterinary Laboratory or the Anaheim Laboratory. CDFA relies on contracted gardeners to collect, remove, and recycle all trimmings. To avoid potential pest outbreaks, organic waste is double bagged and placed in the trash or incinerated to eliminate invasive pests in the fruits and vegetables sampled.

Planning Narrative on Organic Recycling Program and Practices

ORGANIC RECYCLING REQUIREMENTS ACHIEVED

CDFA plans to provide additional organic waste receptacles for the GWSS - Arvin Field Station from the refuse service provider. There are separate bins clearly marked but more signs and bins are needed in common areas. Plant Pest Diagnostics Branch has been separating organic waste since October 1, 2020. Additional fliers will be posted in common areas/Labs, along with clearly marked bins for organic waste.

If organic waste is created, CDFA will work with DGS to meet all requirements for organics recycling and commercial edible food generator requirements, including identifying and mitigating contamination in the recycling and organics recycling streams.

Reporting on Edible Food Recovery Program

CDFA does not create food waste at any CDFA-owned or leased facilities.

Table 5.6: Edible Food Recovery Program Elements

Building Name	Cafeteria >5,000_Ft^2	Cafeteria +250 Seats (Enter actual number of seats)	Was the Cafeteria Open in 2022?	Food Recovery Agreement Yes, No or Unknown
NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED				

There are no cafeterias in any CDFA facilities.

Reporting Narrative on Edible Food Recovery Program

NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED

Planning Narrative on Edible Food Recovery Program

NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED

Reporting on Food Service Items Program

Table 5.7: Food Service Concessionaire Items Program Elements

Building Name	Prepared Food Service Operations Type	Food Service Packaging Meets Requirements	Process in Place for selecting Food Services that meet Packaging Requirements
NO FOOD SERVICES			

There are no concessions in any CDFA facilities.

Planning Narrative on Food Service Items Program

NO FOOD SERVICES

Hazardous Waste Materials

Reporting on Hazardous Waste Materials

Table 5.8: Hazardous Waste Materials

Department -Wide Hazardous Material Name	Department Total Hazardous Material Amount (pounds)
NO DATA	

CDFA has no records of using hazardous building materials and does not track quantity of hazardous materials such as pesticides, chemicals, fertilizers. CDFA properly disposes of all materials and informs contractors that if waste is generated from contactors' work, then the contactors are responsible for disposing of the materials.

Reporting Narrative for Hazardous Waste Materials

It is CDFA's policy to recycle as much as possible and CDFA encourages all employees to do so. This includes but is not limited to any hazardous wastes (if CDFA has cause to dispose of them in the future) such as antifreeze, asbestos, paint, treated wood, used oil, etc.

CDFA maintains internal processes to funnel waste through individual programs to properly dispose of hazardous wastes such as antifreeze, asbestos, paint, treated wood, used oil, etc. CDFA's internal processes ensure that employees give all waste to specific representatives, so everything is properly disposed of.

No hazardous waste materials (antifreeze, asbestos, paint, treated wood, oil, etc.) are produced at any of the Border Protection Stations. CDFA does not produce hazardous waste at the GWSS - Arvin Field Station location but if any hazardous waste is generated from contactors' work, then the contactors are responsible for disposing of the materials. If needed, those materials would be sent to Kern County Special Waste Facility.

Planning Narrative for Hazardous Waste Materials

NO HAZARDOUS WASTE MATERIALS PRODUCED

Universal Waste

Reporting on Department-Wide Universal Waste Materials

Table 5.9: Reporting on Department- Wide Universal Waste Materials

Category	Universal Waste Contract in Place (YES or NO)
E-Waste	Yes - CalPIA
Batteries	No contract – CDFA recycles through Veolia ES Technical Solutions, LLC. or closest Recycle Center
CRTS	N/A
CRT glass	N/A
Lamps	N/A
Mercury Wastes	N/A
Non-empty aerosol cans	N/A
PV modules	N/A

Planning Narrative for Department-Wide Universal Waste Materials

CDFA requires a survey request to be completed when electronic waste (e-waste) or universal waste is being recycled. In addition to the survey request, staff is informed that e-waste must be donated to approved organizations or recycled through CalPIA or an authorized recycler listed on CalRecycle's webpage with a waiver from CalPIA (per MM17-06). When donating electronics, CDFA uses the organizations recommended by DGS.

CDFA maintains internal processes to funnel waste through individual programs to properly dispose of universal waste and e-waste. CDFA's internal processes

ensure that employees give all waste to specific representatives, so everything is properly disposed of.

When disposing of assets that are not e-waste, programs are encouraged to go through a scrap recycler or the recycler applicable to the type of waste being disposed of.

CDFA follows standard disposal methods for universal waste, per DGS directives and requirements. Specific universal waste disposal organizations vary by location. A contract overseeing the universal waste for all CDFA facilities is not possible due to the remote nature of some locations, such as the Border Protection Stations and select field offices, and the differences between the available resources nearby. CDFA will evaluate the needs at each facility to see if one or more contracts for recycling universal waste is necessary. If feasible, CDFA will implement a contract(s) as soon as possible.

Material Exchange

Reporting Narrative on Department-Wide Material Exchange

CDFA utilizes the DGS Surplus Property program to promote the exchange and reuse of unwanted or surplus materials. The exchange of surplus materials reduces the cost of materials/products for the receiving agency and results in the conservation of energy, raw resources, landfill space, and the reduction of GHGe, purchasing costs, and disposal costs.

CDFA continues efforts to recycle toner, batteries, paper, cardboard, cans, and bottles through various organizations. Due to the impact of COVID-19 on schools statewide and per the direction of DGS, CDFA implemented a policy to donate as many computers and related useable electronics as possible to support schools throughout the pandemic. In consideration of this policy, CDFA also donated furniture and office supplies to schools. CDFA works with DGS and various donation entities to recycle as much as possible.

Planning Narrative on Department-Wide Material Exchange

CDFA will provide additional employee education where feasible and will continue to work with DGS to meet all requirements for department-wide material exchange and reuse. CDFA will continue to perform trade-ins where possible.

Waste Prevention Program

Reporting Narrative on Department-Wide Waste Prevention

CDFA supports waste prevention (actions or choices that reduce waste and prevent the generation of waste in the first place) and reuse (using an object or material again, either for its original purpose or for a similar purpose, without significantly altering the physical form of the object or material).

There is no waste prevention program overseeing all CDFA facilities due to the remote nature of some locations, such as the Border Protection Stations and select field offices, and the differences between the available resources nearby. Instead, each facility has independent policies in place to keep waste to a minimum.

Planning Narrative on Department-Wide Waste Prevention

Where feasible, CDFA will provide more training for staff on waste reduction and proper waste and recycling disposal methods.

Reuse Program

Reporting Narrative for Department-Wide Material Reuse

CDFA encourages all facilities to produce minimal waste and reuse materials and equipment as much as possible. CDFA recycles all used printer and copier toner through the manufacturer or a nearby recycler. Manufacturers such as Hewlett-Packard have toner reuse programs to minimize waste. If not sent directly to the manufacturer, printer cartridges have been dropped at local recycle locations (BestBuy, Office Depot, Rasix, etc.).

The weather at CDFA's locations can vary significantly. Some Border Protection Stations are in desert climates and others receive heavy snowfall each year. This limits the reuse of outdoors materials.

Planning Narrative for Department-Wide Material Reuse

CDFA will endeavor to reuse items at each facility and exchange reuse items between CDFA facilities (sending items that may be used elsewhere to those locations). While this is not always feasible, it means that the stations are pooling their resources together to reduce waste.

CDFA will provide additional employee education where feasible and will continue to work with DGS to meet all requirements for department-wide

material exchange and reuse. CDFA will continue to work with recyclers who repurpose materials wherever possible.

Employee Waste and Recycling Training and Education

Reporting Narrative for Employee Waste and Recycle Training and Education

CDFA is compliant with the AB 2812 (Gordon, Chapter 530, Statutes of 2016) requirement to provide adequate receptacles, signage, education, and staffing, and arrange for recycling services consistent with existing recycling requirements for each office building or large state facility. The bill requires, at least once per year, each covered state agency and large state facility to review the adequacy and condition of receptacles for recyclable material and of associated signage, education, and staffing. Additionally, this statute requires each state agency to include in its existing report to CalRecycle a summary of the state agency's compliance.

CDFA works with the property managers of each facility to reduce waste, reuse, recycle, compost, buy green products, educate suppliers about efforts to reduce, reuse, recycle, compost, and buy recycled products to ensure all requirements are met. In addition to signs posted through CDFA's facilities, CDFA sends out notices and instructions to employees and supervisors, reminding them what materials to recycle and how. Training is provided to purchasing employees regarding the recycled content requirements and regularly audited purchases to ensure compliance. New staff are trained on purchasing policies, and recycling signs remain posted in visible areas as constant reminders to be mindful of recycling efforts.

Planning Narrative for Employee Waste and Recycle Training and Education

EMPLOYEE TRAINING AND EDUCATION ACHIEVED

CDFA will provide additional staff training when receiving extra containers/bins. CDFA's Border Protection Stations plan to determine the feasibility of having a station review completed as soon as possible. CDFA will implement additional training and will create a program for the stations to utilize if review determines it is needed. CDFA will continue to work with DGS to ensure all requirements are met.

Environmentally Preferable Purchasing (EPP)

Reporting Narrative for Measure and Report Progress on EPP Spend

CDFA follows all requirements to purchase and use EPP that have a reduced effect on human health and the environment when compared with competing goods that serve the same purpose.

CDFA purchases and uses EPP that have a reduced effect on human health and the environment when compared with competing goods that serve the same purpose.

Additionally, CDFA follows the State Agency Buy Recycled Campaign (SABRC), a joint effort between CalRecycle and DGS to implement state laws requiring state agencies and the Legislature to purchase recycled-content products and track those purchases. CDFA and its contractors must track purchases that fall under eleven product categories.

SABRC product categories include:

- Paper products.
- Printing and writing paper.
- Soil amendments and soil toppings.
- Erosion control products.
- Pavement surfacing.
- Building finishes.
- Carpet.
- Textiles.
- Glass products.
- Lubricating oil products.
- Plastic products.
- Paint.
- Antifreeze.
- Tires.
- Tire-derived products.
- Metal products.

CDFA engages in environmentally friendly purchasing strategies, which include:

- Increasing EPP spending to include identifying top 5 percent of spending with largest opportunity to use "green" options.

- Incorporating EPP criteria in the goods and services the state procures.

- Embedding sustainability roles and responsibilities into purchasing procedures.
- Training buyers in the benefits of buying EPP products, how to apply EPP best practices, the importance of accuracy in recording procurements within the State Contract and Procurement Registration System and reporting labor separate from goods in service contracts and listing EPP goods by line item.
- Engaging and educating suppliers and encouraging them to offer EPP products when selling to the state.
- CDFA disseminates purchasing requirements to all buyers to ensure that all EPP purchases are tracked and recorded in the State Contract and Procurement Registration System.

CDFA plans to increase EPP spending by:

- Asking vendors to offer CDFA more compliant materials.
- Inform programs to focus on buying compliant materials.
- Ensuring Purchasing Analysts are checking if materials could be substituted for more compliant materials.

CDFA notifies bidders of EPP requirements by embedding the Postconsumer Recycled-Content Certification in all solicitations. Certification is mandatory for all solicitations to be considered complete. CDFA measures, monitors, and reports the progress of EPP by reporting all recycled content for purchases and contracts. All purchases using the Fair and Reasonable purchasing mechanism and all solicitations require vendors to complete and return a Postconsumer Recycled-Content Certification. Leveraged Procurement Agreement contracts include all EPP information. CDFA employees are trained to add all EPP information into the Fi$Cal reporting system for all purchases and contracts.

Planning Narrative for Measure and Report Progress on EPP Spend

EPP SPEND ACHIEVED

Goods and Services Categories with the Greatest Potential to Green

Reporting on Goods and Services Categories with the Greatest Potential to Green

Table 5.10: Goods and Services Categories with the Greatest Potential to Green

Good or Service	2022 Total Spend ($)	2022 Percent EPP Spend	EPP Target (Percent)
Glass Products	25,734.00	74.76%	25%
Metal Products	359,056.64	99.31 %	10 %
Paper Products	2,963,212.72	80.14 %	30 %
Plastic Products	147,909.48	84.73 %	20 %
Printing and Writing Paper	19,900.40	79.57 %	30 %

The information from Table 5.10 is generated in the SABRC Report, per the DGS Buying Green website. CDFA spent 100% EPP on all categories not listed in Table 5.10.

As demonstrated in Table 5.10, for the top commodities that CDFA procures with the greatest Potential to Green, CDFA exceeds the postconsumer content requirements, per Public Contract Code Section 12209. CDFA will continue to work with DGS to meet all requirements and increase spending each year for the top four commodities listed. The commitment will be reported as "Commitment to increase EPP per commodity". It is reported as a percentage of the amount spent.

All Goods and Services Categories Meet EPPEPP BMPs

Reporting Narrative for EPP BMPS

CDFA implements standard reporting on EPP for purchases of all required materials, including:

- Paint (i.e., master painter's institute certified paint and recycled paint)
- Information Technology goods (Energy Star rated: computers, monitors, and televisions DGS-52161505 Purchasing Standard or meet current specifications of statewide contracts)
- Janitorial supplies and cleaners (EcoLogo, Greenseal certified cleaners, DGS_471318A Purchasing Standard compliant)
- Janitorial supplies, paper products (i.e., SABRC compliant and DGS_141117A Purchasing Standard Compliant)

- Desk lamps (DGS-391115-A Purchasing Standard compliant)
- Office equipment (i.e., EPEAT compliant and EnergyStar rated printers, copiers, and DGS_432121A Purchasing Standard compliant for high-end multifunctional devices)
- Paper products (i.e., Forest Stewardship Council certified, SABRC compliant copy paper, DGS-441200-A Purchasing Standard compliant)
- Remanufactured toner cartridges (available from CalPIA and statewide contract ID/Number: 1-15-75-61)

CDFA focuses on making sure all contractors focus on providing CDFA with EPP goods that meet SABRC requirements. If the materials do not meet the requirements, CDFA will contact the contractors and ask them for goods that are more suitable to CDFA requirements.

Planning Narrative for EPP BMPs

EPP BMPs ACHIEVED

Reporting on EPP Training and Outreach

CDFA is committed to promoting the understanding and advancement of sustainable procurement internally and externally. CDFA ensures all buyers are informed and trained on all EPP requirements. CDFA notifies bidders of EPP requirements within the following areas: construction contracts, service and transportation agreements, commodity purchases, grants, interagency agreements and Architecture and Engineering contracts.

Table 5.11: 2022 EPP Basic Training Completions

CalHR Classification	Total Number of Staff	EPP Basic Training Completion	Percent Trained	2023 EPP Training Goal
Staff Services Manager I	1	1	100	100 %
Associate Governmental Program Analyst/Staff Services Analyst	4	4	100	100 %

Total Number of Employees Assigned as Buyers: 5

The EPP training referenced in Table 5.11 and 5.12 is through California Procurement and Contract Academy. CDFA also works closely with DGS to ensure all training requirements are met.

Table 5.12: 2022 EPP Intermediate Training Completions at CDFA

Classification	Total number of staff	EPP Intermediate Training Completions	Percent Trained	2023 EPP Training Goal (Percent)
Staff Services Manager I	1	1	100	100 %
Associate Governmental Program Analyst/Staff Services Analyst	4	4	100	100 %

Total Number of Employees Assigned as Buyers: 5

The EPP training referenced in Table 5.12 is through California Procurement and Contract Academy. CDFA also works closely with DGS to ensure all training requirements are met.

Table 5.13: 2022 EPP Leadership Training Completions for CDFA Management

Executive Member	Title	Date Completed
The following department employees involved in procurement decisions are compliant with the self-attest training: • Assistant Director, Administrative Services Division • Departmental Services Branch Chief • Acquisitions Manager	EPP/SABRC Annual Training Cal PCA	Initially during onboarding and annually thereafter

All CDFA buyers and purchasing managers are responsible for keeping current on required training; however, CDFA is considering expanding the member list to include additional staff that have a role in obtaining quotes, etc. from prospective vendors.

Reporting Narrative on EPP Training and Education

CDFA is committed to promoting the understanding and advancement of sustainable procurement internally within the agency and external suppliers. CDFA ensures all buyers are informed and trained on all EPP requirements. CDFA notifies bidders of EPP requirements within the following areas: construction contracts, service and transportation agreements, commodity purchases, grants, interagency agreements and Architecture and Engineering contracts.

CDFA does not have any additional training or certifications beyond the basic CalPCA EPP training. CDFA promotes EPP by being in contact with its vendors on what is expected with CDFA requirements regarding EPP and recycled content. CDFA provides all vendors and bidders of solicitations documents of what recycled content and EPP is required to meet compliance.

Planning Narrative on EPP Training and Education

EPP TRAINING AND EDUCATION ACHIEVED

Reporting on State Agency Buy Recycled Campaign (SABRC), and Reducing Impacts

Reporting on SABRC Progress

CDFA met all minimum percentage totals except for Glass products. Glass products did not meet the requirement of 75 percent compliant. Laboratory equipment requires materials that must be made from virgin materials to avoid contamination. CDFA continues to be diligent in its efforts to procure goods that are compliant with the Buy Recycled Campaign.

Table 5.14: SABRC 2022 Performance

Product Category	SABRC Reportable Dollars	SABRC Compliant Dollars	Percent SABRC Compliant
Antifreeze	$0	$0	0%
Carpet	$0	$0	0%
Compost and Mulch	$0	$0	0%
Glass Products	$25,734.00	$19,239	74.76%
Erosion Control Products:	$0	$0	0%
Lubricating Oils	$16.90	$16.90	100%
Paint	$0	$0	0%
Paper Products	$2,963,212.72	$2,374,683.44	80.14%
Pavement Surfacing	$0	$0	0%
Plastic Products	$147,909.48	$125,319.29	84.73%
Printing and Writing Paper	$19,900.40	$15,833.95	79.57%
Metal Products	$359,056.64	$356,583.36	99.31%
Soil Amendments and Soil Toppings	$0	$0	0%
Textiles	$0	$0	0%
Tire Derived Products	$54.40	$54.40	100%
Tires	$10,401.79	$10,401.79	100%

The information from Table 5.10 is generated in the SABRC Report for July 2021 to June 2022, per the DGS Buying Green website and the SABRC compliance percentages.

Compliant with SABRC, CDFA compiles and submits annual recycling reports to track progress. Agencies reporting SABRC purchases can access the information through CalRecycle. To meet SABRC compliance percentages, at least 50-75 percent of the products listed in the above table must have at least 10-80 percent recycled content per the breakdown found on the CalRecycle webpage.

CDFA works with DGS in an ongoing effort to achieve SABRC compliance and increase procurement of recycled products across all categories.

CDFA purchases new tires instead of retreaded tires, consistent with state requirements. There is a statewide contract prohibiting the purchase of recycled tires. A total of $148,508 reportable procurements for tires (Category 9) were for goods purchased from CalPIA. As stated in the State Contracting Manual, Volume F, Chapter 2: Pursuant to Penal Code Section 2807, state departments must first consider if CalPIA can fulfill the state department's need prior to purchasing goods and services from private sector suppliers (including suppliers that have a Leveraged Procurement Agreement with the DGS Procurement Division).

CDFA procures post-consumer recycled content products whenever feasible, including contract materials. CDFA requires contractors to adhere to the SABRC purchasing requirements per Public Contract Code Section12203(d) and use recycled products to the extent economically feasible in the performance of contract work per Public Contract Code Sections 12200-12217. All contractors working with CDFA are required to report recycled content purchased and this content is reported in CDFA's annual SABRC report.

Additionally, CDFA procurement staff (buyers and approvers) participate in the annual Environmental Preferable Purchasing (EPP) training offered by DGS to stay informed on EPP requirements and changes. This training facilitates a better understanding of how the state views green products and businesses. CDFA incorporates environmental criteria in procurement processes when issuing solicitations and educates employees involved in purchasing decisions by incorporating language about the importance of EPP and requirements into CDFA's annual Department-wide training. CDFA seeks out eco-labels using DGS EPP Recommended Ecolabels when available and meets purchasing needs, and regularly reviews and updates department policies and procedures to continually improve the department's process.

Planning Narrative for Measure and Report SABRC Progress

CDFA engages in environmentally friendly purchasing strategies, which include:

- Increasing EPP spending to include identifying top 5 percent of spending with largest opportunity to use "green" options.
- Incorporating EPP criteria in the goods and services the state procures.
- Embedding sustainability roles and responsibilities into purchasing procedures.
- Training buyers in the benefits of buying EPP products, how to apply EPP best practices, the importance of accuracy in recording procurements within the State Contract and Procurement Registration System and reporting labor separate from goods in service contracts and listing EPP goods by line item (to ensure that all EPP purchases are tracked and recorded, into the State Contract and Procurement Registration System).
- Engaging and educating suppliers and encouraging them to offer EPP products when selling to the state.

SABRC purchasing percentages were achieved for all products except glass products. CDFA plans to encourage programs to be more diligent in finding products that are more EPP friendly.

All procurement officers have completed the SABRC annual training.

Reducing Impacts

Reporting Narrative for Reducing Impacts

The environmental impact of the goods purchased is often larger than the impact of the department purchasing them. CDFA is committed to reducing the environmental impact of goods and services CDFA purchases. CDFA works with CalRecycle and DGS to ensure all requirements are met. CDFA also compiles and submits annual recycling reports to track progress and will attend the green purchasing training provided by DGS to continue to ensure compliance with all requirements, including:

- Buying goods and services that lessen any negative impacts to public health, natural resources, economy, and environment.

- Reducing environmental impacts such as energy, water and natural resource conservation when making purchasing decisions.
- Ensuring goods and services procured meet the current DGS purchasing standards and specifications available from the DGS Buying Green website;
- Ensuring purchases (such as paint, Information Technology goods, janitorial supplies and cleaners, paper products, desk lamps, office equipment, and toner) are EPP.
    - Paint (i.e., master painter's institute certified paint and recycled paint).
    - Information Technology goods (EnergyStar rated: computers, monitors, and televisions DGS-52161505 Purchasing Standard or meet current specifications of statewide contracts).
    - Janitorial supplies and cleaners (EcoLogo, Green Seal certified cleaners, DGS_471318A Purchasing Standard compliant).
    - Janitorial supplies, paper products (i.e., SABRC compliant and DGS_141117A Purchasing Standard Compliant).
    - Desk lamps (DGS-391115-A Purchasing Standard).
    - Office equipment (i.e., EPEAT compliant and EnergyStar rated printers, copiers, and DGS_432121A Purchasing Standard compliant for high-end multifunctional devices).
    - Paper products (i.e., Forest Stewardship Council certified, SABRC compliant copy paper, DGS-441200-A Purchasing Standard compliant).
    - Remanufactured toner cartridges (available from PIA and statewide contract ID/Number: 1-15-75-61).

CDFA requires contractors to meet EPP goods and SABRC requirements when bidding on solicitation contracts. CDFA purchasing and contract analysts are trained on the DGS purchasing standards and specifications and follow those guidelines.

Location Efficiency

Smart Location Score for New Leases after January 1, 2020

CDFA works with DGS to ensure all requirements are met, and the goal of average location efficiency score for all new leases be 10 percent higher than the statewide average as of January 1, 2017.

Table 5.15: Smart Location Score for New Leases after January 1, 2020

Facility name	Smart Location Calculator Score
NO NEW LEASES	

Planning Narrative Instructions for Smart Location Score after January 1, 2020

There are no new leased facilities over 10,000 Ft^2.

Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score

Table 5.16: Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score

Facility name	Smart Location Calculator Score
2423 East Winston Avenue, Anaheim	5
6790 Florin Perkins Road, Sacramento	9
403 West Avenue 33, Los Angeles	10

The information in Table 5.9 is from the U.S. General Services Administration's Smart Location Calculator–

CHAPTER 6 - FUNDING OPPORTUNITIES

Funding Opportunity Climate Change Adaptation

Table 6.1: Climate Change Priority Projects

Building Name	Project	Funding Source	Estimated Begin Date	Estimated Completion Date
NO PRIORITIES				

Although no climate change priorities are specifically identified in Table 6.1, CDFA has made the below efforts that impact climate change and disadvantaged communities.

When evaluating criticality and climate risk to CDFA facilities, CDFA has and will continue to consider nearby and impacted populations. In some cases, facilities may be located near communities that have characteristics that could contribute to higher vulnerability. CDFA will continue to work with DGS, CNRA, and CalEPA to integrate CDFA facility climate change planning when feasible.

CDFA Grant Programs
CDFA administers various grant programs to distribute funds throughout California to outside entities. These grants assist disadvantaged communities, conservation, and climate change adaptation. CDFA programs select new projects each year to award grants to.

CDFA facilitates incentive programs for sustainable practices for resilience, such as the SWEEP and the DDRDP. CDFA issues grants for projects that impact water conservation throughout California through: SWEEP, WETA, SCBGP, and SCMP. CDFA's SWEEP has been crucial in implementing resilient water management across the state. As referenced in the California Climate Adaptation Strategy CDFA is a key partner in various agricultural projects throughout the state designed to increase positive economic and environmental impact, conservation, sustainability and improve best practices.

CDFA considers impacts on communities for resilience planning for CDFA assets and facilities. CDFA has and will continue to award grants to projects that are beneficial to severely disadvantaged communities and SDFRs. As of 2023, CDFA has dedicated over $22 million toward SCBGP projects and $530 million toward AMMP, DDRDP, HSP and SWEEP projects using one-time funding appropriated by the State Legislature.

- CDFA issues grants for projects that assist with communities' connection to California food and agriculture through: Farm2Fork, Senior Farmers' Market Nutrition Program, and Farmers Market Promotion Program

- CDFA issues grants for projects that assist disadvantaged communities throughout California through: DDRDP and AMMP

- CDFA issues grants for projects that assist disadvantaged communities and climate adaptation throughout California through: HSP

Cabon Dioxide Management Evaluation Tool
CDFA worked with the USDA and CSU to develop a new carbon and GHGe evaluation for the Natural Resources Conservation Service conservation practice planning tool, called the Carbon Dioxide Management Evaluation Tool-Planner. This tool was designed to enable farmers to assess the GHGe reductions from implementing various land management practices. Practices incorporated in the Carbon Dioxide Management Evaluation Tool-Planner include conservation tillage, strip tillage, cover cropping, windbreak establishment, and habitat restoration, among others. The development of tools to help the agriculture industry adapt to climate change is one of the recommendations referenced in the California Climate Adaptation Strategy, consistent with the 2013 Climate Change Consortium final report.

Potential Impacts of Facilities on Communities
When evaluating criticality and climate risk to CDFA facilities, CDFA will consider nearby and impacted populations. For example, prisons or state hospitals serve many populations that are considered vulnerable. In other cases, facilities may be located near communities that have characteristics that could contribute to higher vulnerability.

Changes in HDD and CDD
CDFA will work with DGS to determine what actions are necessary to stay within recommended temperatures and protect employees from potential hazards.

Some of the strategies CDFA may employ to reduce the impact of changing temperatures, and HDD/CDD, on facility performance and/or to protect occupant health and safety may include additional HVAC capacity, shade structures or tree planting, relocation, etc. When considering options on actions to take, CDFA will review and consider the options mentioned in the California Climate Adaptation Strategy for the applicable sector. To date, CDFA has referenced Preparing California for Extreme Heat: Guidance and

Recommendations when employing strategies to reduce the impact of changing temperatures.

Urban Heat Islands
Two CDFA facilities are in urban heat islands. Both have 30 parking spaces or fewer (San Bernardino Veterinary Laboratory has 30, Turlock Veterinary Laboratory has 23). Since the parking lots are so small, CDFA will need to further evaluate solutions to reduce the contribution to urban heat islands. CDFA will evaluate and consider selecting projects based on their suitability and cost-effectiveness. Future CDFA projects may include reducing impermeable surface areas surrounding facilities, implementing additional greening measures with the use of green infrastructure as part of cooling strategies in public and private spaces, utilizing additional shading (such as trees, vegetation, or shade structures), or expanding the use of cool, porous, or sustainable materials in pavements. CDFA will work with DGS and refer to Preparing California for Extreme Heat: Guidance and Recommendations to develop the solutions which best fit the Department's needs.

Changes in Precipitation
Most of the facilities owned by CDFA are Border Protection Stations on the sides of highways and freeways, some in higher climates more prone to snowfall. The increase in precipitation may create a concern regarding the impact on the structural integrity of these facilities, but more precipitation is anticipated to fall as rain than as snow. This would mean the structural integrity may not be compromised and less snowfall with more rain might make installation of solar panels more feasible in some areas. CDFA will work with DGS and CalTrans to determine what, if any, actions are needed to protect occupant health and safety.

Wildfires
Most of CDFA's owned facilities are Border Protection Stations located on highways and freeways that allow for some degree of separation from fires, but in the event of a fire, CDFA has emergency evacuation plans for every location and prioritizes protecting all employees' health and safety. CDFA will evaluate strategies, including working with DGS to determine if additional HVAC precautions are necessary, to protect employees from elevated smoke levels and harmful exposure to other potential hazards.

Natural Infrastructure
CDFA will continue to work with DGS RESD to meet facility requirements and pursue natural infrastructure in new facility design and operation for all existing projects. CDFA will evaluate projects to employ natural infrastructure to reduce the risks of climate change to CDFA's facilities based on their suitability and cost-

effectiveness. Future CDFA projects may include reducing impermeable surface areas surrounding facilities, implementing additional greening potentially with the use of green infrastructure as part of cooling strategies in public and private spaces, utilizing additional shading (such as trees, vegetation, or shade structures), or expanding the use of cool, porous, or sustainable materials in pavements. CDFA will work with DGS and refer to Preparing California for Extreme Heat: Guidance and Recommendations to develop the solutions which best fit the Department's needs.

Integrating Climate Change into Department Planning and Funding Programs
CDFA addressed and considered:

- State policies and laws that no longer fit California's water reality or public values and the most troublesome gaps in state data.
- Proven technologies and forecasting tools that should be adopted across California to bolster the sustainability of water systems; and
- Models from other states and nations that may be useful to California.

CDFA also discussed the best methods to:

- Help communities ensure safe, affordable drinking water.
- Better enable local and regional water districts to capture, store and move water.
- Support ongoing water conservation.
- Manage urban and agricultural water through the next drought.
- Prepare for economic adjustments as communities fully implement the Sustainable Groundwater Management Act in coming years, and
- Ease regional water management.

CDFA will continue to work with DGS, CNRA, and CalEPA to integrate climate change planning when feasible.

CDFA pursued free programs to install solar panels, but the solar generation requirements were higher than CDFA could achieve. CDFA is working with ChargePoint to determine if there are currently any incentive programs available that may provide financial assistance to CDFA in installing additional

EVSE. CDFA is reviewing the incentive programs from Sacramento County, Fresno County, and San Joaquin Valley Air Pollution Control District to determine if the Department would qualify. CDFA will consult with DGS to determine if there are programs that provide incentives or supplement finances required to install energy tracking meters. CDFA has and will continue to consult with CalEPA on options available for renewable energy.

Funding Opportunities for ZEVs and EV Infrastructure

Table 6.2: EV Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
NO PRIORITIES				

CDFA has engaged with DGS, CalEPA, and ChargePoint to find funding assistance for energy conservation and EVSE. Most of CDFA's owned facilities are Border Protection Stations that cannot support the EVSE because they are on the highway with only highway shoulder parking instead of official dedicated parking owned by CDFA. CalEPA and ChargePoint have advised CDFA on a few possible opportunities for assistance from Utilities for EVSE installation efforts; including but not limited to CDFA's offices in Sacramento, Fresno, and San Joaquin County. CDFA will continue to evaluate the feasibility of using various programs, such as the above and Electrify America, to install EVSE in leased and owned facilities at reduced cost to the state.

Funding Opportunities for Building Energy Conservation and Efficiency

Table 6.3: Building Energy Conservation and Efficiency Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
NO PRIORITIES				

CDFA will continue to work with DGS to determine alternate funding, when feasible.

Funding Opportunities for Water Conservation and Efficiency

Table 6.4: Water Conservation and Efficiency Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
NO PRIORITIES				

CDFA has submitted water conservation proposals to DGS WaterCat but has not received funding. CDFA will continue to work with DGS to determine alternate funding.

Funding Opportunities for Sustainable Operations

Table 6.5: Sustainable Operations Priorities

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
NO PRIORITIES				

CDFA will continue to work with DGS to determine alternate funding.

Full Life Cycle Cost Accounting

Reporting on Life Cycle Cost Accounting

CDFA is working closely with DGS regarding facility planning.

Planning for Implementing Life Cycle Cost Accounting

CDFA will work with DGS (RESD and PMDB) experts in employing lifecycle considerations in new facility design and operation.

CHAPTER 7 – PUBLIC EDUCATION AND OUTREACH

CDFA will work with DGS to determine what actions are necessary to prepare for potential hazards and protect employees.

The following CDFA programs and initiatives have issued financial grants and awards for projects in disadvantaged communities:

- CDFA contributes to and provides funding for programs which strengthen local and regional food systems by supporting and creating incentives for establishment of urban and peri-urban agriculture, farm to fork programs, farmers' markets, and school and community gardens, supported by California's agriculture industry.
- The SCBGP encourages projects that support and promote sustainable agricultural practices such as water conservation and practices that reduce soil degradation and the use of fossil fuel-based inputs such as pesticides and synthetic fertilizers.
- The DDRDP encourages the implementation of dairy digesters that result in long-term methane emission reductions on California dairies and minimize or mitigate adverse environmental impacts.
- The AMMP provides financial assistance for the implementation of non-digester manure management practices in California, which will result in reduced GHGe.
- SWEEP facilitates integration of irrigation systems that reduce GHGe and save water on California agricultural operations.
- CDFA leads the Healthy Soils Initiative, which is intended to reduce GHGe; promote resiliency; improve the capacity of communities to prepare, respond, and recover from climate-related health risks by storing water in soils; reduce agricultural water needs; improve nutritional value of crops; and reduce the need for chemical inputs such as fertilizers.

APPENDIX A – SUSTAINABILITY LEADERSHIP

Below is the Organization Chart of CDFA from the Secretary to the branch housing CDFA's Sustainability Leadership.

SECRETARY KAREN ROSS
UNDERSECRETARY CHRISTINE BIRDSONG
DEPUTY SECRETARY FOR FINANCE AND ADMINISTRATION ARIMA KOZINA
DIRECTOR, DIVISION OF ADMINISTRATIVE SERVICES JODY LUSBY
CHIEF, DEPARTMENTAL SERVICES BRANCH ZAID DOMINGUEZ
MANAGER, BPMU RENE AGUILERA

APPENDIX B – SUSTAINABILITY MILESTONES & TIMELINE

2012	EO B-18-12 & B-16-12 ISSUED NEW & RENOVATED BUILDINGS EXCEED T-24 BY 15 PERCENT
2013	BUILDINGS <10,000 FT^2 MEET CALGREEN TIER 1 BEGIN WATER USE BENCHMARKING (2010 BASELINE)
2015	LEED-EB CERTIF. FOR ALL EXIST. BLDGS >50,000 FT^2 REDUCE WATER USE 10 PERCENT 10 PERCENT OF FLEET LDV PURCHASES ZEV REDUCE WATER USE 25 PERCENT FROM 2013 TO FEB 28, 2016
2016	100 PERCENT OF NEW & RENOVATED BUILDINGS ZNE BEGINNING DESIGN AFTER 10/2017)
2017	100 PERCENT OF NEW & RENOVATED BUILDINGS ZNE BEGINNING DESIGN AFTER 10/2017)
2018	20 PERCENT ENERGY USE REDUCTION (2003 BASELINE)
2020	REDUCE WATER USE 20 PERCENT 25 PERCENT OF FLEET LDV PURCHASES ZEV
2025	50 PERCENT OF EXISTING BUILDINGS ZNE
2035	ZERO EMISSIONS FROM STATE OPERATIONS

APPENDIX C – ACRONYMS

The following pages include the definitions of the acronyms and abbreviations found in CDFA's 2022-23 Sustainability Roadmap.

Acronym/Abbreviation	Definition
%	Percent
°F	Degrees Fahrenheit
AB	Assembly Bill
Alturas Border Protection Station	Border Protection Station located at: 26297 US Highway 395, Alturas, CA 96101
AMMP	Alternative Manure Management Program
Anaheim Laboratory	CDFA laboratory located at: 169 East Liberty Avenue, Anaheim, CA 92803
ASHRAE	The American Society of Heating, Refrigerating and Air-Conditioning Engineers
Benton Border Protection Station	Border Protection Station located at: 27275 US-6, BOX 27211, Benton, CA 93512
BEV	Battery Electric Vehicle
Blythe Border Protection Station	Border Protection Station located at: 7116 East Interstate 10, Blythe, CA 92226
BMPS	Best management practices
BPMU	Building and Property Management Unit
CalEnviroScreen	California Communities Environmental Health Screening Tool
CalEPA	California Environmental Protection Agency
CALGREEN	California Green Building Standards Code (Title 24, Part 11)
Caltrans	California Department of Transportation
CDD	Cooling Degree Days
CDFA	California Department of Food and Agriculture
CHP	California Highway Patrol
CO^2e	Carbon Dioxide equivalent
CRIS	Climate Registry Information System
DDRDP	Dairy Digester Research & Development Program
DGS	Department of General Services
DMV	Department of Motor Vehicles
Dorris Border Protection Station	Border Protection Station located at: 51331 Highway 97, Dorris, CA 96023
DRP	Demand Response Program
EBOM	Existing Buildings Operations and Maintenance
EHT	Extreme Heat Threshold
EMS	Energy management system

Acronym/Abbreviation	Definition
EO	Executive Order
EPP	Environmentally preferable purchasing
EUI	Energy use intensity (source kBTU/ Ft^2)
EVSE	Electric Vehicle Supply Equipment (vehicle charger)
FAP	Fleet Acquisition Plan
FSB	Financial Services Branch
Ft^2	Square Feet
FY	Fiscal Year
GHGe	Greenhouse gas emissions
GPS	Global Positioning Unit
GWSS	Glassy Winged Sharpshooter Project
GWSS - Arvin Field Station	CDFA office located at: 13720 Rock Pile Road, Arvin, CA 93203
HD	Heavy-Duty (Vehicle)
HDD	Heating Degree Days
Hornbrook Border Protection Station	Border Protection Station located at: 14601 North Interstate 5, Hornbrook, CA 96044
HSP	Healthy Soils Program
HVAC	Heating, Ventilation, and Air Conditioning
IEQ	Indoor environmental quality
IPM	Integrated Pest Management
kBTU	Thousand British thermal units (unit of energy)
kWh	Kilowatt Hour (energy used per hour)
L1	Level 1 (120-volt outlet)
L2	Level 2 (240-volt outlet or vehicle charger)
L3	Level 3 (480-volt fast vehicle charger)
LD	Light-Duty (Vehicle)
LEED	Leadership in Energy and Environmental Design
Long Valley Border Protection Station	Border Protection Station located at: US Highway 395, Chilcoot, CA 96105
LTR	Long-Term Rental
Max.	Maximum
MBCx	Monitoring Based Commissioning
MD	Medium-Duty (Vehicle)
Meadowview Road Complex	CDFA office located at: 3288-3294 Meadowview Road, Sacramento, CA 95832
Meyers Border Protection Station	Border Protection Station located at: 3094 US Highway 50, Meyers, CA 96155
Min.	Minimum
MM	Management Memo

Acronym/Abbreviation	Definition
Mountain Pass Border Protection Station	Border Protection Station located at: 101488 Poppy Way, Nipton, CA 92364
MPG	Miles Per Gallon
MWELO	Model Water Efficient Landscape Ordinance
Needles Border Protection Station	Border Protection Station located at: 142150 Westbound Interstate-40, Needles, CA 92363
OFAM	Office of Fleet and Asset Management (at DGS)
PDCP	Pierce's Disease Control Program
PHEV	Plug-In Hybrid Electric Vehicle
PMDB	Project Management and Development Branch (at DGS)
Precip.	Precipitation
PUE	Power usage effectiveness
Redwood Border Protection Station	Border Protection Station located at: 18071 Highway 199, Crescent City, CA 97534
RESD	Real Estate Services Division (at DGS)
SABRC	State Agency Buy Recycled Campaign
SAM	State Administrative Manual
San Bernardino Veterinary Laboratory	CDFA Laboratory located at: 105 West Central Avenue, San Bernardino, CA 92408
SARC	State Agency Reporting Center
SB	Senate Bill
SCBGP	Specialty Crop Block Grant Program
SCMP	Specialty Crop Multi-State Program
SDFRs	Socially Disadvantaged Farmers and Ranchers
SMUD	Sacramento Municipal Utilities District
Smith River Border Protection Station	Border Protection Station located at: 17200 Highway 101 North, Smith River, CA 95567
SUVs	Sport Utility Vehicles
SWEEP	State Water Efficiency and Enhancement Program
TEC	Travel Expense Claim
Temp.	Temperature
Therms	Thermal Units (unit of energy)
Topaz Border Protection Station	Border Protection Station located at: 120117 US Highway 395, Topaz, CA 96133
Truckee Border Protection Station	Border Protection Station located at: Union Mills/Pedestal/Interstate-80, Truckee, CA 96161
Tulelake Border Protection Station	Border Protection Station located at: 22485 State Highway 139-North, Canby, CA 96015
Turlock Veterinary Laboratory	CDFA Laboratory located at: 1550 N Soderquist Road, Turlock, CA 95380

Acronym/Abbreviation	Definition
USDA	United States Department of Agriculture
VAV	Valid All Vehicles (WEX Card)
VHSP	Vehicle home storage permits
Vidal Border Protection Station	Border Protection Station located at: Highway 62, Vidal, CA 92280
WETA	Water Efficiency Technical Assistance
Winterhaven Border Protection Station	Border Protection Station located at: 3510 West Interstate 8, Winterhaven, CA 92283
WUCOLS	Water Use Classifications of Landscape Species
ZEV	Zero Emission Vehicle (includes both BEV and PHEV)
ZNE	Zero net energy

APPENDIX D – GLOSSARY

Backflow - is the undesirable reversal of the flow of water or mixtures of water and other undesirable substances from any source (such as used water, industrial fluids, gasses, or any substance other than the intended potable water) into the distribution pipes of the potable water system.

Back flow prevention device – a device that prevents contaminants from entering the potable water system in the event of back pressure or back siphonage.

Blowdown, boilers - is the periodic or continuous removal of water from a boiler to remove accumulated dissolved solids and/or sludge. Proper control of blowdown is critical to boiler operation. Insufficient blowdown may lead to deposits or carryover. Excessive blowdown wastes water, energy, and chemicals.

Blowdown, cooling towers – Is the water discharged to remove high mineral content system water, impurities, and sediment.

BMPs - are ongoing actions that establish and maintain building water use efficiency. BMPs can be continuously updated based on need and tailored to fit the facility depending on occupancy and specific operations.

Compost – Compost is the product resulting from the controlled biological decomposition of organic material from a feedstock into a stable, humus-like product that has many environmental benefits. Composting is a natural process that is managed to optimize the conditions for decomposing microbes to thrive. This generally involves providing air and moisture, and achieving sufficient temperatures to ensure weed seeds, invasive pests, and pathogens are destroyed. A wide range of material (feedstock) may be composted, such as yard trimmings, wood chips, vegetable scraps, paper products, manures and biosolids. Compost may be applied to the top of the soil or incorporated into the soil (tilling).

CDD - is defined as the number of degrees by which a daily average temperature exceeds a reference temperature. The reference temperature is also typically 65°F, and different utilities and planning entities sometimes use different reference temperatures. The reference temperature loosely represents an average daily temperature below which space cooling (e.g., air conditioning) is not needed.

Critical overdraft - a condition in which significantly more water has been taken out of a groundwater basin than has been put in, either by natural recharge or by recharging basins. Critical overdraft leads to various undesirable conditions such as ground subsidence and saltwater intrusion.

Ecosystem services - are the direct and indirect contributions of ecosystems to human well-being. They support directly or indirectly our survival and quality of life. Ecosystem services can be categorized in four main types:

- Provisioning services are the products obtained from ecosystems such as food, fresh water, wood, fiber, genetic resources, and medicines.

- Regulating services are the benefits obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination, or pest control.

- Habitat services provide living places for all species and maintain the viability of gene-pools.

- Cultural services include non-material benefits such as spiritual enrichment, intellectual development, recreation, and aesthetic values.

Grass cycling - refers to an aerobic (requires air) method of handling grass clippings by leaving them on the lawn when mowing. Because grass consists largely of water (80 percent or more), contains little lignin, and has high nitrogen content, grass clippings easily break down during an aerobic process. Grass cycling returns the decomposed clippings to the soil within one to two weeks acting primarily as a fertilizer supplement and, to a much smaller degree, mulch. Grass cycling can provide 15 to 20 percent or more of a lawn's yearly nitrogen requirements.

HDD - is defined as the number of degrees by which a daily average temperature is below a reference temperature (i.e., a proxy for when heat would be needed). The reference temperature is typically 65°F, although different utilities and planning entities sometimes use different reference temperatures. The reference temperature loosely represents an average daily temperature *above which* space heating is not needed. The average temperature is represented by the average of the maximum and minimum daily temperature.

Hydrozone – is a portion of a landscaped area having plants with similar water needs that are served by one irrigation valve or set of valves with the same schedule.

Landscape Coefficient Method - describes a method of estimating irrigation needs of landscape plantings in California. It is intended as a guide for landscape professionals.

Landscape water budget - is the calculated irrigation requirement of a landscape based on landscape area, local climate factors, specific plant requirements and the irrigation system performance.

Lifecycle cost accounting - includes initial investment costs, as well as lifetime operation and maintenance costs under changing climate conditions, including changing average conditions and increases in extreme events. It may involve applying non-market evaluation methods such as travel cost, avoided costs or contingent valuation to capture hard to quantify benefits and costs.

Make Up Water - Makeup water, or the water replacing evaporated or leaked water from the boiler, is first drawn from its source, whether raw water, city water, city-treated effluent, in-plant wastewater recycled (cooling tower blowdown recycle), well water, or any other surface water source.

MWELO - The Water Conservation in Landscaping Act was signed into law on September 29, 1990. The premise was that landscape design, installation, and maintenance can and should be water efficient. Some of the provisions specified in the statute included plant selection and groupings of plants based on water needs and climatic, geological, or topographical conditions, efficient irrigation systems, practices that foster long term water conservation and routine repair and maintenance of irrigation systems. The latest update to MWELO was in 2015. MWELO applies to all state agencies' landscaping.

Mulch – Mulch is a layer of material applied on top of soil. Examples of material that can be used as mulch include wood chips, grass clippings, leaves, straw, cardboard, newspaper, rocks, and even shredded tires. Benefits of applying mulch include reducing erosion and weeds and increasing water retention and soil vitality. Whenever possible, look for mulch that has been through a sanitization process to kill weed seeds and pests.

Natural infrastructure - is the "*preservation or restoration of ecological systems or the utilization of engineered systems that use ecological processes to increase resiliency to climate change, manage other environmental hazards, or both. This may include, but need not be limited to, flood plain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days*" (Public Resource Code Section 71154(c)(3)).

Non-purchased Water – is water that a department uses that does not come from a 3rd party supplier. It may be water from domestic wells owned by the department or water that is taken from a river, lake, canal, or other source and used by the department. The water may be returned to its source after use.

Trickle flow – A device that allows users to reduce flow to a trickle while using soap and shampoo. When the device is switched off, the flow is reinstated with the temperature and pressure resumes to previous settings.

Sprinkler system backflow prevention devices – are devices to prevent contaminants from entering water supplies. These devices connect to the sprinkler system and are an important safety feature. They are required by the California Plumbing Code.

Submeter- a metering device installed to measure water use in a specific area or for a specific purpose. Also known as dedicated meters, landscape submeters are effective for separating landscape water use from interior water use, evaluating the landscape water budget and for leak detection within the irrigation system.

Urban heat islands - are areas with localized spikes in temperature, which impact human health, increase pollution, and increase energy demand. Urban heat islands occur during the hot summer months in areas with higher percentages of impervious surface and less vegetation. This is likely in areas with large parking lots, dense development, and lower tree density and shading. Urban heat islands can be mitigated (i.e., reduced) through tree planting and other greening measures, cool roofs (e.g., lighter roofing materials that reflect light), cooler pavements, and other measures.

Water Budget - A landscape water budget is the calculated irrigation requirement of a landscape based on landscape area, local climate

factors, specific plant requirements and the irrigation system performance.

Water-energy nexus - Water and energy are often managed separately despite the important links between the two. 12 percent of California's energy use is related to water use with nearly 10 percent being used at the end of water use. Water is used in the production of nearly every major energy source. Likewise, energy is used in multiple ways and at multiple steps in water delivery and treatment systems as well as wastewater collection and treatment.

Water Shortage Contingency Plans - Each urban water purveyor serving more than 3,000 connections or 3,000 acre-feet of water annually must have an Urban Water Shortage Contingency Plan (Water Shortage Plan) which details how a community would react to a reduction in water supply of up to 50 percent for droughts lasting up to three years.

WUCOLS - Water Use Classification of Landscape Species. WUCOLS are used to help determine water budgets and irrigation schedules. Use this link to access the necessary information for your landscaping needs. WUCOLS Plant Search Database (ucdavis.edu)

APPENDIX E – DEPARTMENT STAKEHOLDERS

The following pages include the positions responsible for CDFA's sustainability efforts.

Climate Change Adaptation

Understanding Climate Risk at Existing Facilities
Administrative Services Division, BPMU, Energy Conservation Liaison

Understanding Climate Risk at Planned Facilities
Administrative Services Division, BPMU, Energy Conservation Liaison

Integrating Climate Change into Department Planning and Funding Programs
Administrative Services Division, BPMU, Energy Conservation Liaison

Measuring and Tracking Progress
Administrative Services Division, BPMU, Energy Conservation Liaison

ZEVs

Incorporating ZEVs Into the Department Fleet
Administrative Services Division, BPMU, Business Services Manager

Telematics
Administrative Services Division, BPMU, Fleet Analyst

Public Safety Exemption
Administrative Services Division, BPMU, Energy Conservation Liaison

Outside Funding Sources for ZEV Infrastructure
Administrative Services Division, BPMU, Business Services Manager

Hydrogen Fueling Infrastructure
Administrative Services Division, BPMU, Fleet Analyst

Comprehensive Facility Site and Infrastructure Assessments
Administrative Services Division, BPMU, Business Services Manager

EVSE Construction Plan
Administrative Services Division, BPMU, Business Services Manager

EVSE Operation
Administrative Services Division, BPMU, Business Services Manager

Energy

ZNE
Administrative Services Division, BPMU, Business Services Manager

New Construction Exceeds Title 24 by 15 Percent
Administrative Services Division, BPMU, Business Services Manager

Reduce Grid-Based Energy Purchased by 20 Percent by 2018
Administrative Services Division, BPMU, Business Services Manager

Server Room Energy Use
Executive Office, Office of Information Technology Services, Agency Information Officer

DRP
Administrative Services Division, BPMU, Energy Conservation Liaison

Renewable Energy
Administrative Services Division, BPMU, Business Services Manager

MBCx
Administrative Services Division, BPMU, Business Services Manager

Financing
Administrative Services Division, BPMU, Business Services Manager

Water Efficiency and Conservation

Indoor Water Efficiency Projects in Progress First initiative
Administrative Services Division, BPMU, Energy Conservation Liaison

Boilers and Cooling Systems Projects in Progress
DGS, Facilities Management Division, DGS Building Manager

Landscaping Hardware Water Efficiency Projects in Progress
DGS, Facilities Management Division, DGS Building Manager

Living Landscaping Water Efficiency Projects in Progress
Administrative Services Division, BPMU

Buildings with Urban Water Shortage Contingency Plans in Progress
DGS, Facilities Management Division, DGS Building Manager

Green Operations

GHGe
Administrative Services Division, BPMU

Building Design and Construction
Administrative Services Division, BPMU, Business Services Manager

LEED for Existing Buildings Operations and Maintenance
Administrative Services Division, BPMU, Business Services Manager

IEQ
Administrative Services Division, BPMU, Business Services Manager

IPM
DGS, Facilities Management Division, DGS Building Manager

Waste Management and Recycling
DGS, Facilities Management Division, DGS Building Manager

EPP
Administrative Services Division, Acquisitions Office, Purchasing Manager

Location Efficiency
Administrative Services Division, BPMU, Business Services Manager

APPENDIX F – SUSTAINABILITY STATUTORY REQUIREMENTS. EXECUTIVE ORDERS (EO) AND MANAGEMENT MEMOS (MM) REFERENCES

The following EOs, MMs, legislative actions, resources, and guidance documents provide the sustainability criteria, requirements, and targets tracked and reported herein.

EOs

The governor issued the following EO relevant to chapters of this roadmap:

- EO B-16-12

  EO B-16-12 directs state agencies to integrate ZEVs into the state vehicle fleet. It also directs state agencies to develop the infrastructure to support increased public and private sector use of ZEVs. Specifically, it directs state agencies replacing fleet vehicles to replace at least 10 percent with ZEVs, and by 2020 to ensure at least 25 percent of replacement fleet vehicles are ZEVs.

- EO B-18-12

  EO B-16-12 and the companion *Green Building Action Plan* require state agencies to reduce the environmental impacts of state operations by reducing GHGe, managing energy and water use, improving indoor air quality, generating on-site renewable energy when feasible, implementing EPP, and developing the infrastructure for electric vehicle charging stations at state facilities. The Green Building Action Plan also established two oversight groups – the staff-level Sustainability Working Group and the executive-level Sustainability Task Force – to ensure these measures are met. Agencies annually report current energy and water use to the Energy Star Portfolio Manager.

- EO B-29-15

  EO B-29-15 directs state agencies to take actions in response to the ongoing drought and to the state of emergency due to severe drought conditions proclaimed on January 17, 2014. Governor Brown directed numerous state agencies to develop new programs and regulations to mitigate the effects of the drought and required increased enforcement of water waste statewide. Agencies were

instructed to reduce potable urban water use by 25 percent between 2013 and February 28, 2016.

- EO B-30-15

  In 2015, the governor issued EO B-30-15, which declared climate change to be a "threat to the well-being, public health, natural resources, economy and environment of California." It established a new interim statewide GHGe reduction target of 40 percent below 1990 levels by 2030 and reaffirms California's intent to reduce GHGe to 80 percent below 1990 levels by 2050. To support these goals, this order requires numerous state agencies to develop plans and programs to reduce emissions. It also directs state agencies to take climate change into account in their planning and investment decisions and employ life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives. State agencies are directed to prioritize investments that both build climate preparedness and reduce GHGe; prioritize natural infrastructure; and protect the state's most vulnerable populations.

SAM & MM

The following section of SAM, and associated MMs currently impose sustainability requirements on the department under the governor's executive authority:

- SAM Chapter 1800: Energy and Sustainability
- MM14-02: Water Efficiency and Conservation
- MM 14-05: IEQ: New, Renovated, And Existing Buildings
- MM 14-09: Energy Efficiency in Data Centers and Server Rooms
- MM 15-03: Minimum Fuel Economy Standards Policy
- MM 15-04: Energy Use Reduction for New, Existing, and Leased Buildings
- MM 15-06: State Buildings and Grounds Maintenance and Operation
- MM 15-07: Diesel, Biodiesel, and Renewable Hydrocarbon Diesel Bulk Fuel Purchases
- MM 16-07: ZEV Purchasing and EVSE Infrastructure Requirements

Recent Legislative Actions

Several pieces of legislation were signed in 2015-16 that codified several elements of the EOs, or provided further requirements included in the policies. These include the following:

- AB 1482 (Gordon, 2015): Requires that the California Natural Resources Agency (CNRA) update the state's adaptation strategy safeguarding California every three years. Directs state agencies to promote climate adaptation in planning decisions and ensure that state investments consider climate change impacts, as well as the use of natural systems and natural infrastructure. (Public Resources Code Section 71153)

- SB 246 (Wieckowski, 2015): Established the Integrated Climate Adaptation and Resiliency Program within the Governor's Office of Planning and Research to coordinate regional and local efforts with state climate adaptation strategies to adapt to the impacts of climate change. (Public Resources Code Section 71354)

- AB 2800 (Quirk, 2016): Requires state agencies to take the current and future impacts of climate change into planning, designing, building, operating, maintaining, and investing in state infrastructure. CNRA will establish a Climate-Safe Infrastructure Working Group to determine how to integrate climate change impacts into state infrastructure engineering. (Public Resources Code Section 71155)

Other Legislative Actions

- AB 4: Passed in 1989. The SABRC statutes are in Public Contract Code Section 12153-12217. The intent of SABRC is to stimulate markets for materials diverted by California local government and agencies. It requires state agencies to purchase enough recycled-content products to meet annual targets, report on purchases of recycled and nonrecycled products, and submit plans for meeting the annual goals for purchasing recycled-content products.

- AB 32 Scoping Plan: The scoping plan assumes widespread electrification of the transportation sector as a critical component of every scenario that leads to the mandated 40 percent reduction in GHGe by 2030 and 80 percent reduction by 2015.

- AB 2583 (Blumenfield 2012) Public Resources Code §25722.8: Statute requires reducing consumption of petroleum products by the state fleet compared to a 2003 baseline. Mandates a 10 percent reduction or displacement by Jan. 1, 2012, and a 20 percent reduction or displacement by Jan. 1, 2020.

- AB 75 – Implement an integrated waste management program and achieve 50 percent disposal reduction target. State agencies report annually on waste management programs.

- SB 1106 – Have at least one designated waste management coordinator. Report annually on how your designated waste and recycling coordinator meets the requirement.

- AB 2812 - Provide adequate receptacles, signage, education, staffing, and arrange for recycling services. Report annually on how each of these is being implemented.

- AB 341 – Implement mandatory commercial recycling program (if meet threshold). Report annually on recycling program!

- AB 1826 – Implement mandatory commercial organics recycling program (if meet threshold). Report annually on organics recycling program.

- SB 1383 – 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020, a 75 percent reduction by 2025, and 20 percent of currently disposed edible food is recovered for human consumption by 2025.

    - Agencies already in compliance with AB 1826 may need to further expand their organic waste recycling service to comply with the new requirements.
    - Jan. 1, 2024, Tier 2 Commercial Edible food Generators will be required to donate edible food to a recovery organization.

- SB 1335 - requires food service facilities located in a state-owned facility, a concessionaire on state-owned facility, or under contract to dispense prepared food using reusable, recyclable, or compostable. food service packaging

Action Plan

- 2016 ZEV Action Plan

  The plan establishes a goal to provide electric vehicle charging to 5 percent of state-owned parking spaces by 2022. It also advances the ZEV procurement target to 50 percent of LD vehicles by 2025.

State Resources and Guidance Documents

California has invested significant resources in understanding the risks of climate change, water efficiency, strategic growth, and state actions available to respond to and reduce these risks. These include the following:

- Safeguarding California: The state's climate adaptation strategy organized by sector. Each sector identifies risks from climate change and actions to reduce those risks.

- Safeguarding California Implementation Action Plans: Directed under EO B-30-15, the Implementation Action Plans outline the steps that will be taken in each sector to reduce risks from climate change.

- Planning and Investing for a Resilient California: Prepared under direction of EO B-30-15, this document provides a framework for state agencies to integrate climate change into planning and investment, including guidance on data selection and analytical approach.

- California's Climate Change Assessments: California has completed three comprehensive assessments of climate change impacts on California. Each assessment has included development of projections of climate impacts on a scale that is relevant to state planning (i.e., downscaled climate projections). These data are available through Cal-Adapt, an online data visualization and access tool.

- Water Use Reduction Guidelines and Criteria: Issued by the California Department of Water Resources February 28, 2013, pursuant to EO B-18-12. Each applicable agency was required to take actions to reduce water use in facilities and landscapes that are operated by the state, including owned, funded, or leased facilities. State-operated facilities are defined as facilities where the agency has direct control of the buildings' function, maintenance, and repair. For leased facilities, the Green Building Action Plan

directed at that time that new and renegotiated leases include provisions for water conservation, reporting water use, and installation of sub-meters to the extent possible and economically feasible.

- Strategic Growth Council (SGC) Resolution on Location Efficiency: Location efficiency refers to the GHGe arising from the transportation choices of employees and visitors to a building as determined by the Smart Location Calculator. Adopted on December 6, 2016, the resolution directs members of the SGC to achieve a 10 percent improvement in the Smart Location Score of new leases compared to the average score of leased facilities in 2016.

APPENDIX G – LIST OF TABLES AND GRAPHS

APPENDIX H – FLEET PROGRAM POLICY

The following pages include CDFA's Fleet Program Policy. This is an internal policy for all CDFA employees.

Policy

It is the policy of the California Department of Food and Agriculture (CDFA) to ensure the safety of its employees and the public through the proper use and maintenance of vehicles for official State Business. The Departmental Services Branch, Fleet Unit, has oversight and administrative responsibility for CDFA's Fleet Program.

The policy covers:

Authority

California Code of Regulations (CCR), Title 2, Sections 559.802, 559.803, 599.808
California Health and Safety Code Section 44019
California Vehicle Code Sections 23123 and 23123.5, Handheld Wireless Use
California Vehicle Code Section 23152, Driving Under the Influence
California Vehicle Code Section 27315, Mandatory Seat Belt Law
CDFA Fleet Manual
CDFA Travel Guide
Government Code Sections 19570-19578
Executive Order B-16-12
Department of General Services (DGS) Management Memos: 04-07, 12-08, 13-01,13-03, 16-02
State Administrative Manual (SAM) Sections 0750, 0752, 0753, 0754, 2420, 2430, 4107, 4120

Definitions

General Use Mobile Equipment	Self-propelled mobile equipment such as boats, all-terrain vehicles, forklifts, golf carts, and tractors.
Mobile Trailers	Boat trailers, office trailers, light tower trailers, and refrigerator trailers.
Motor Vehicle	A vehicle that is self-propelled and registered by the Department of Motor Vehicles (DMV) for street use.
Office of Risk Insurance Management (ORIM)	Office within the Department of General Services (DGS) that provides risk management and insurance services to State and other public entities.
State Auto Inspector	DGS staff who recommends equipment maintenance, repair, replacement, and disposal; and ensures adherence to maintenance schedules.
WEX	The WEX card (State Fleet Fuel card) is for official state business to be used to fuel state vehicles with regular unleaded gas, alternative fuels, and fluids and lubricants.
Telematics	GPS service solution that collects vehicle utilization data (mileage, fuel, efficiency, preventative maintenance, speed, location, and additional services).

Responsibility

Managers and Supervisors	Supervisors may authorize employees or non-salaried employees (e.g., interns, volunteers, etc.) to use motor vehicles or general use mobile equipment on State business under the following conditions: • Determine when it is appropriate for employees to use either a State-owned vehicle or their own vehicle to carry out their duties. • Verify the employee has a valid California driver's license for operating the type of vehicle necessary. • Ensure employee complies with the use of a privately owned vehicle (SAM Section 0753). Ensure that an Authorization to Use Privately Owned Vehicle on Official State Business (STD. 261) is on file and updated for every employee operating a privately-owned vehicle on State business each year. • Ensure all employees authorized to operate vehicles on official State business attend the Defensive Driver Training

at least once every four years. (SAM Section 0752)
- Annually, obtain a copy of driving record from the DMV for every employee authorized to operate a vehicle on official State business. The report must remain in the employee file.
- Assign vehicles to employees whose duty statements require driving.
- Ensure that all employees authorized to operate vehicles are following procedures for state-owned, short-term, and long-term rentals; and are following mileage reporting procedures.
- Verify that all mileage used on state business is reported either via the auto log or online process is accurate.
- Consider private vehicle use at locations where State vehicles are not available.
- Promptly and thoroughly investigate the alleged misuse of State vehicles and submit a report to the Branch Chief, Division Director, and Human Resources to initiate the necessary disciplinary action.
- Ensure that all vehicle accidents are reported to the California Highway Patrol (CHP), ORIM, and Fleet Unit (Fleet Manual) Ensure all accidents and crimes are reported as outlined in the Guide to Accident and Crime Reporting.
- Ensure all employees that operate vehicles sign the Fleet Telematics Program Policy.
- Review the vehicle service records to ensure the vehicle has been properly maintained. Complete and submit Vehicle Safety Inspection Form to Fleet Unit annually by December 31st.

Employees

Employees are responsible for the proper use of vehicles and will adhere to the following criteria on official State business:
- Must be at least 18 years of age and hold a valid California Driver's License (SAM Management Memo 13-03).
- Check the safety of the asset before operation. Ensure vehicle appears safe to drive prior to operation.
- Review the vehicle service records to assure the vehicle has been properly maintained. Complete and submit Vehicle Safety Inspection Form to Fleet Unit annually by December 31st.
- Obey all traffic laws, including but not limited to:
  - Seatbelts are required to be always worn (California Vehicle Code Section 27315).
  - Handheld wireless telephone use is prohibited while driving

(California Vehicle Code Sections 23123 and 23123.5).
  - Consumption of alcohol or medication that could impair driving abilities is prohibited (California Vehicle Code 23152).
- Smoking in a State vehicle is prohibited (SAM Management Memo 04-07).
- Report promptly, to immediate supervisor, all accidents and traffic citations that are incurred while driving State, private, or rental vehicles while on State business.
- No unauthorized passengers.

WEXCards

Every State-owned vehicle is issued a WEX Card through the Fleet Unit or through DGS when vehicles are leased from DGS. Each WEX Card is assigned to a specific vehicle and is prohibited from being used for another vehicle. The WEX Card must only be used for the following transactions:

- Unleaded gasoline.
- Alternative fuels (e.g., biodegradable diesel, E-85, CNG, propane, etc.).
- Fluids and lubricants.
- Emergency purchases such as wiper blades, fan belts, etc.
- Two car washes per month.
- Tires from DGS-approved[1] vendors.
- Emergency roadside assistance through the National Automobile Club (800-600-6065).

On limited circumstances approved by the Branch Chief, e.g., while the Program waits for the new or replacement WEX card to arrive, Programs may request a Valid All Vehicles (VAV) card from the Fleet Unit. The VAV card will be issued for a period of thirty (30) days and must be returned to the Fleet Unit upon expiration. Programs must comply with fleet credit card processes outlined in the Fleet Manual. The VAV card is non-transferrable among staff and must only be used for the vehicle to which it is assigned. Programs that fail to meet this standard will be required to submit an action plan on meeting compliance to continue use.

Home Storage of State Vehicles

A Home Storage Request/Permit (STD. 377) is allowed under limited circumstances. Per CCR, Title 2, Section 599.808, a Home Storage Request/Permit is required when the vehicle is home- stored more than 72 nights over a 12-month period or more than 36 nights over any three-month period.

[1] Information on DGS-approved vendors can be found in the Fleet Manual.

State vehicles must be parked off the street overnight. Street parking increases the possibility of accidental damage, theft, or vandalism.

Vehicle Home Storage Permit (VHSP) Procedure

The VHSP request must be completed by the employee and the supervisor. It must be approved by the Division Director then submitted to the Departmental Services Branch, Fleet Coordinator. The following is required to be included in the VHSP request:

1) A memorandum to the Departmental Services Branch Chief from the requesting Division Director. The memorandum must validate the reason for the VHSP and should also identify any other applicable criteria (home office, substantial field work, emergency response, reasonable accommodation, etc.).
2) A completed VHSP application (STD. 377) that clearly defines the qualifying criteria for the request. The STD. 377 has detailed directions and criteria on the Instructions page. http://www.dgs.ca.gov/ofam/Forms.aspx. The Approving Officer for new requests is the Department's Deputy Secretary for Administration and Finance.
3) Copy of the employee's current Defensive Driving Certification.
4) DMV confirmation that the employee is enrolled in DMV's Employer Pull Notice Program.
5) Copy of the employee's Duty Statement illustrating the need for the VHSP.
6) If applicable, confirmation that the employee has a department-approved home office.

The Departmental Services Branch, Fleet Coordinator will submit the VHSP request to the Executive Office for approval. The supervisor or manager will be notified of the status of the request.

The Departmental Services Branch, Fleet Coordinator will maintain records on the VHSP and report on all Department permits annually to the Department of General Services.

The VHSP must be re-certified annually on October 31 and whenever there is a change to the information on the approved permit by resubmitting a completed STD. 377 to the Departmental Services Branch, Fleet Coordinator. The Approving Officer for VHSP re-certifications is the Division Director. The VHSP cannot be transferred among staff.

Short or Long-Term Vehicle Rentals

Short-term rentals are vehicles rented for 29 days or less. Short-term vehicle rentals may be rented from a State-approved vehicle rental under Concur. Drivers will need a valid driver's license and must be at least 18 years of age. Employees must only use short-term vehicle rentals if no CDFA vehicles are available. Per DGS Management Memo 13-01, continually re-renting fleet assets week to week or with a short break after 29 days without seeking DGS approval is prohibited.

The State's standard rental vehicle type is a four-door compact/economy vehicle accommodating four people. In cases that warrant a larger type of vehicle (such as times when several people are traveling together with luggage or equipment), a Short-Term Vehicle Justification Form needs to be completed, signed by supervisor, attached to Travel Expense Claim (TEC) and submitted to Financial Services Branch (FSB)/Travel Unit for processing. Without substantiation or need, the employee will be required to pay the cost difference between the contract price and price of the vehicle rented.

Short-term rental mileage must be reported to FSB with the Travel Expense Claim.

For details regarding FSB's travel mileage reporting procedures, excessive rate justifications and other travel procedures, please refer to the FSB Travel Guide.

Long-term rentals are vehicles rented for more than 29 days. Long-term vehicle rentals may be rented from DGS or a State-approved vehicle rental contract vendor. Requests for long-term vehicle rentals must be made through the annual FAP. DGS must approve the use of long-term rentals through DGS or the State approved rental contract vendor. Contact the Fleet Unit for additional information.

Drivers are required to submit monthly mileage and total days used data through the DGS Online Mileage Log. These monthly entries are used by OFAM to accurately bill departments for their leased vehicles. Failure to report mileage to OFAM by the fifth working day of the month may result in a $50 charge to the department or agency. To register to enter mileage for your LTR, please use the following steps:

1. Go to the website address: https://www.dgsapps.dgs.ca.gov/OFA/MileageLog/
2. Select the button that says, "Click here to register."
3. Enter the requested information.
4. Once the account is established, the user will be able to login and enter monthly LTR.

Energy Efficient Vehicles

In accordance with Executive Order B-16-12, CDFA shall acquire and use ZEVs and other energy-efficient vehicles. ZEVs include pure ZEVs such as hydrogen fuel cell vehicles (FCVs) and BEVs. PHEVs are considered transitional ZEVs and may be partially considered toward the mandated ZEV requirement. Each Program shall be responsible for maintaining their ZEVs and PHEVs, which includes ensuring that each vehicle meets current utilization standards.

Each Program shall be responsible for ensuring that there will be ZEV infrastructure in office locations where ZEVs will be stored. The Program must work with the Departmental Services Branch, Building and Property Management Unit in planning and coordinating the installation of Electric Vehicle Supply Equipment infrastructure.

Charging State-Owned Vehicles

Each Program is responsible for charging their ZEVs and PHEVs using charging stations available at some CDFA buildings and state garages. Charging stations at CDFA buildings require the use of a division-specific code, which drivers obtain from their Branch's Fleet Coordinator. The charging stations will be available on a "first-come-first-served" basis and may be used for a maximum of four hours. Each Program is responsible for moving the vehicle(s) to another parking space after they have been charged. State-owned vehicles will have charging priority.

Commercial Charging Stations

Drivers of state-owned ZEVs may use commercial charging stations in the Charge Point network whenever CDFA-owned charging stations are unavailable or if drivers encounter a charging need while away from CDFA charging stations. Drivers shall use Charge Point cards, which are assigned to each ZEV or PHEV. The Charge Point cards must be used for charging state vehicles only. Programs must immediately report any lost or stolen Charge Point cards to their Branch Fleet Coordinator.

Charging Non-State-Owned ZEVs or PHEVs on CDFA-Owned Charging Stations

CDFA employees may charge their personal ZEVs or PHEVs on CDFA-owned charging stations. Employees will need to contact his/her Program's Fleet Coordinator for authorization. The charging stations can be used for a maximum of four hours. Each employee is responsible for moving his/her personal vehicle to another parking space at the conclusion of charging or when a state-owned

vehicle needs to be charged. State-owned vehicles will have charging priority.

Vehicle Utilization Standards

CDFA-owned and leased vehicles must be driven at least 1,000 miles each month to meet state utilization standards. Vehicles that do not meet state utilization standards will require Program justification for the continued use of the vehicles. CDFA will be required to develop a utilization plan for vehicles that are underutilized and unsupported by sufficient mission critical justification.

CDFA-owned and leased pure ZEVs and PHEVs must meet state utilization standards each month. Total charging utilization of PHEVs must consist of 50 percent electric miles traveled per month. Programs that fail to meet the state charging utilization standard for ZEVs and PHEVs will require justification for the underutilized charging of the vehicles. CDFA will be required to develop a utilization plan for any vehicles that consistently fail to meet the charging utilization standards.

Utilization Reporting

In accordance with SAM Section 4107, each Program is responsible for ensuring that drivers of state vehicles and vehicles rented short term through a non-state entity are tracking and reporting their mileage per the following guidelines:

Drivers of state vehicles must report mileage through the Monthly Travel Log (STD 273) with the following details for every trip: Drivers of state vehicles must report mileage through the Monthly Travel Log (STD 273) with the following details for every trip:

- Vehicle information
- Trip date and time
- Odometer start and end readings
- Total trip miles
- Departure location[2]
- Arrival location[2]
- Reason code
- Driver name

Programs must submit Monthly Travel Logs to the Fleet Unit by the 10th of the following month.

Reporting of Traffic Citations and Convictions

Each employee, whether driving a State-owned, private, or rental vehicle, is required to report in writing to his/her immediate supervisor, all traffic citations and convictions of traffic offenses received during business and non-business hours, weekends and holidays while employed with the Department.

- Drivers must report the exact departure and arrival locations. Listing "focal" or just a city name in the location fields is not adequate.

Vehicle Accidents, Employee Liability, and Reporting

Motor vehicle accidents are categorized into three classifications: work damage, avoidable, and non-avoidable.

Work Damage

Most vehicles that have damage consisting of normal wear and tear (i.e., scratches, glass damage, small dents during normal operations, etc.), but not due to employee negligence, will be considered work damage and will be reviewed by the State Auto Inspector upon program's request.

Avoidable Accidents

An avoidable accident occurs while a state vehicle is being operated and the employee could have prevented or avoided the accident as determined by CHP. All damage due to employee negligence, regardless of the extent of damage, (backing, unsafe driving, or misuse of the vehicle) will be considered an avoidable accident.

It is CDFA's intent to eliminate avoidable vehicle accidents. If the supervisor finds upon CHP investigation, that an avoidable accident was caused by the employee's negligence (i.e., unsafe acts on the part of the employee), disciplinary action should be taken.

In addition, the employee shall be required to take additional training classes. (e.g., Defensive Driver's Training, Behind the Wheel Driver's Training, etc.).

Non-Avoidable Accidents

Motorized vehicles that have damage where the employee could not reasonably prevent or avoid the accident, as determined by CHP, will be considered a non-avoidable accident and will be reviewed by the employee's supervisor.

A non-avoidable accident may include the following:

- Accidents where the employee could not reasonably prevent or avoid the accident. Employees must act within reason under the circumstances to prevent or avoid accidents as determined by CHP or ORIM.
- Accidents occurring while the vehicle is legally and properly parked.
- Vandalism, theft, or equipment failure.

Accidents involving two or more State vehicles shall be treated as one accident. The accident will be reported as non-avoidable on the record of the employee deemed principally responsible.

Legal Action Resulting from Vehicle Accidents

All subpoenas and summonses must be served directly to the Legal Office at CDFA Headquarters. If service is attempted at a field office, it should be refused, and the server should be provided with directions to Headquarters. Subpoenas and summonses improperly received in a field office must be sent to the Legal Office via email at CDFA.Legal0ffice@cdfa.ca.gov or fax at (916) 653-1293. Failure to immediately e-mail or fax an improperly received subpoena or summons to the Legal Office may seriously impair the ability of the Department to legally defend itself.

Accident Reporting

Every State vehicle should always have an Accident Identification Card (STD. 269) in the vehicle. The employee shall record the other party's vehicle and insurance information for CDFA's records. The employee shall prepare a Vehicle Accident Report (STD. 270) and a State Driver Accident Review (STD. 274) which must be signed by the employee's supervisor.

The following criteria applies to all accidents:

- All motor vehicle accidents occurring while on State business must be reported to the employee's supervisor immediately.
- Supervisors/managers must report all motor vehicle accidents occurring while on State business to the Fleet Unit within 24 hours of the accident. Completed and signed STD. 270 and STD. 274 must be submitted to the Fleet Unit within 24 hours of the accident.
- The Fleet Unit must submit the completed STD. 270 and STD. 274 to ORIM within 48 hours of the accident.
- If the accident results in bodily injury to anyone, the employee's supervisor must immediately report it to ORIM by telephone (916) 376-5302 or fax a copy of the STD. 270 to (916) 376-5275.
- If the State employee is injured, their supervisor shall prepare Worker's Compensation forms and contact the Human Resources Branch, Disability Management Unit at (916) 654-0790 or email CDFA.DMU@cdfa.ca.gov immediately.

Employees are prohibited from making statements as to fault or payment for damages to anyone. All claimants are to be referred directly to ORIM to expedite the handling of any claims.

If a non-salaried employee (which includes, but is not limited to, students over the age of 18 and contractors) is involved in at motor vehicle accident while on State business, the program's insurance coverage will be limited to $1 million per

accident. The program that authorizes the non-salaried employee to drive will be financially responsible for the payment of claims, settlements, and judgments of more than $1 million.

For more detailed information on vehicle accidents, please see the Accident and Crime Report Guide, available on the Department Portal under Resources, Guides and Manuals.

Preventative Maintenance Inspections

Preventative maintenance is required to ensure State vehicles are operationally safe, comply with manufacturer warranty requirements and provide many years of service. Department-owned vehicles require annual safety checks by the employees and supervisors that are responsible for the maintenance and care of the vehicle.

In addition to inspecting for safety defects, employees and supervisors will review the vehicle service records to ensure the vehicle has been properly maintained. Employees and supervisors will use the Vehicle Safety Inspection Form (SO-55) for the preventative maintenance check-off list. Forward the completed SO-55 to CDFA's Fleet Unit annually by December 31.

Concerns on safety or apparent mechanical defects should be immediately reported to CDFA's Fleet Unit and followed up with a local State Automotive Inspector.

SMOG Checks

In accordance with California Health and Safety Code Section 44019, each Program shall be responsible for taking affected vehicles (i.e., odd-numbered Vehicle Identification Numbers (VINs) are due on odd-numbered years and even-numbered VINs are due on even-numbered years) to vendors for the SMOG certification. The Fleet Unit will provide programs with a list of affected vehicles. A SMOG Check Vehicle Inspection Report will be issued by the vendor and shall be electronically submitted by the Program to the Fleet Unit through the Fleet Database by October 31st of each year.

Disposal of Fleet Assets

State vehicles and general use mobile equipment may be disposed of when they are notcost- effective to repair or are considered surplus. Disposal may be by public auction; sealed bid via field sale; reutilization by another state agency; or by transferring to another governmental agency. Programs must comply with the fleet disposal process outlined in the Fleet Manual.

Disposed vehicles are eligible as FAP replacement vehicles up to one year after their disposal date.

Misuse of State-Owned Vehicles

State-owned and rented (short and long-term) vehicles must be used for official State business only. Transportation of passengers is limited to individuals involved in the performance of assigned state activities unless the employee's supervisor has given prior authorization. Any employee who misuses a state-owned and rented vehicle is subject to disciplinary action pursuant to Government Code Sections 19570-19578. In addition, the employee will be held liable for all costs resulting from any misuse per California Code of Regulations Title 2, Section 599.803.

Misuse includes:

- Failure to comply with established State procedures governing use of motor vehicles.
- Improper parking or storage of State vehicles.
- Noncompliance with mileage reporting procedures.
- Noncompliance with applicable traffic laws.
- Unsafe driving practices.

Misuse Reporting Procedures:

Individuals alleging of misuse of State-owned or State-rented vehicles must follow these reporting procedures:

- Gather and submit the vehicle license plate number, date, time, and location of incident, and description of incident.
- Report to Departmental Services, Fleet Unit.
- The Fleet Unit will contact the relevant Branch Chief and Division Director who will be responsible for investigating the allegations and will present findings to the Chief of Departmental Services and Human Resources. State agencies are required to investigate and act on alleged misuse, and to notify DGS OFAM of investigative findings.
- The Fleet Unit will contact DGS OFAM and other relevant individuals regarding the investigative findings.

Employee Responsibilities

- Follow reporting procedures outlined above.
- Follow all state driving laws.

Supervisor Responsibilities

- Ensure that all employees authorized to operate vehicles are following CDFA policies and procedures for state-owned, short-term, and long-term rentals; and are following mileage reporting procedures.
- Verify that all mileage used on state business is reported either via the auto log or online process is accurate.

Privately-Owned Vehicles - Conditions for Official Use

Employees may be permitted to use a privately-owned vehicle on State business when a State owned, or leased vehicle is not available. No State agency shall require employees to use their own vehicles on State business unless it is a formal condition of employment (SAM Section 0750).

Information concerning private car mileage rates is contained in SAM Section 754, Reimbursement for Use of Privately-Owned Automobiles.

Each vehicle operator must submit an STD. 261 to their supervisor and certify the following annually:

- The vehicle to be used is covered by liability insurance for at least the following levels: $15,000 for personal injury to, or death of, one person; $30,000 for personal injury to two or more persons in one accident; and $5,000 for property damage (SAM Section 0753).
- The employee and all passengers will use all available safety equipment in the vehicle.
- The employee will ensure, to the best of their knowledge, the vehicle is in safe mechanical condition.

Fleet Acquisition Plan

In accordance with SAM Section 4120, CDFA shall submit its annual FAP to the DGS Office of Fleet and Asset Management. Programs must submit complete FAP requests through the Fleet database annually by October 31. Late submissions and Program-initiated changes after October 31, may be processed for the following FAP cycle.

Divisions must comply with Fleet requirements that include, but are not limited to, WEX and VAV card usage, utilization standards, ZEV and charging infrastructure, and auto log submission by October 31. FAP proposals from non-compliant Divisions will be deferred from internal review and approval, and submission to DGS until the Division has demonstrated compliance.

Details regarding the FAP process will be provided through an annual CDFA Fleet Workshop and through instructions posted on the CDFA Portal's Fleet page.

Programs must comply with the following requirements to be eligible to submit FAP proposals:

- The Fleet Coordinator and Approver must attend the Fleet Workshop in August of every year.
- The Fleet Coordinator and Approver must be registered to use the FAP database by September 1 of each year. Non-registered individuals can contact the Fleet Unit to register.
- Programs must be in compliance with the Fleet Manual and Fleet Program Policy.

Fleet Telematics Program

All CDFA state-owned vehicles are equipped with telematics Global Positioning System (GPS) equipment. The Departmental Services Branch, BPMU is the primary liaison among CDFA Programs and DGS regarding the installation and implementation of GPS equipment in state- owned vehicles.

Additional information regarding CDFA's Fleet Telematics Program can be found on the CDFA Portal's Fleet Page.

Distribution

Distribution of the above policy includes all CDFA employees.
Any questions regarding this policy should be directed to CDFA's Fleet Unit at CDFA.ASD_Fleet@cdfa.ca.gov.