

Sustainability Roadmap 2024-2025 California Department of Justice

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



Gavin Newsom, Governor

December 31, 2025

CALIFORNIA DEPARTMENT OF JUSTICE

Sustainability Road Map 2024-2025

Primary Authors

Sarah Beddawi, Analyst II – Sustainability

Stephanie Maerdian, Analyst II – Sustainability

Staff Direct Manager Title

Beatriz Giraldo, Supervisor I – Sustainability

Madeline Jimenez, Supervisor II – Broadway Facilities/Central Services/Sustainability

Robert Dunlap, Manager II – Facilities/Telecom/Central Services/Sustainability

Executive Director

Michael Fong – Office of Fiscal Services

Chief

Chris Ryan – Division of Administrative Services

Chief Deputy Attorney General

Francesca Gessner

Chief Deputy of Operations

Erin Suhr

TABLE OF CONTENTS

- CALIFORNIA DEPARTMENT OF JUSTICE2
- TABLE OF CONTENTS 3
- EXECUTIVE SUMMARY7
- Chapter 1 - CLIMATE CHANGE ADAPTATION 15
- Department Mission and Climate Change Adaptation 15
- Climate Change Risks to Facilities 16
- Assessing Risk from Changing Extreme Temperatures: 17
- Assessing Risk from Urban Heat Islands..... 22
- Assessing Risk from Changes in Precipitation 24
- Assessing Risk from Sea Level Rise 26
- Assessing Risks from Wildfire 27
- Understanding Climate Risk to Planned Facilities 31
- Understanding the Potential Impacts of Facilities on Communities..... 34
- New Facilities and Disadvantaged Communities and Urban Heat Islands 36
- Integrating Climate Change into Department Funding Programs 36
- Community Engagement and Planning Processes 37
- Climate Change Implementation Planning in Funding Programs 38
- Reporting Narrative on Measuring and Tracking Progress..... 39
- CHAPTER 2 - ZERO-EMISSION VEHICLES 40
- Department Mission and Fleet 40
- Rightsizing the Vehicle Fleet..... 43
- Telematics 44
- Existing Fleet Description..... 45
- Light Duty Fleet Vehicles..... 45
- Medium and Heavy-Duty Fleet Vehicles 48
- Incorporating ZEVs into the State Fleet 49
- Light-Duty ZEV Adoption..... 49
- Medium- Heavy-Duty ZEV Adoption 52
- Take-Home Vehicle Fleet Status 54

ZEV Public Safety Exemption	57
Department's Parking Facilities.....	59
On-going EVSE Charging Operations and Maintenance	65
Public EV Charging Policies.....	65
Employee EV Charging Policies.....	65
Fleet EV Charging Policies.....	66
Hydrogen Fueling Infrastructure.....	67
CHAPTER 3 – ENERGY.....	68
Department Mission and Building Infrastructure	68
Total Purchased Energy	69
Department Energy Use.....	69
Zero Net Energy (ZNE)	73
New Construction Exceeds Title 24 by 15%.....	74
Existing Buildings Energy Efficiency	75
Energy Savings Projects	77
Demand Response (DR)	77
Renewable Energy.....	79
Monitoring-Based Commissioning (MBCx).....	81
Building Controls.....	83
Energy Reduction Strategies - Best Management Practices (BMPs)	84
CHAPTER 4 - DECARBONIZATION.....	85
Department Mission and Decarbonization Efforts	85
Greenhouse Gas Emissions.....	86
Department's Decarbonization Approach.....	89
Existing Conditions Assessment	89
Decarbonization Measures	94
Decarbonization Action Plan.....	100
CHAPTER 5 - WATER EFFICIENCY AND CONSERVATION.....	110
Department Mission and Water Use.....	110
Total Purchased Water	111
Department Indoor Water Use.....	118

Fixtures and Water Using Appliances Needs Inventories	118
Water Conservation and Water Efficiency Projects for Purchased Water	119
Department Total Nonpurchased Water Excluding Water Reuse or Recycling	122
Department Water Energy Nexus Reporting	123
Department Outdoor Water Use:	130
Critically Overdrafted Groundwater Basins and Water Shortage Contingency Plans.....	143
Department's Urban Water Shortage Contingency Plan	145
CHAPTER 6 – FACILITIES' CONSTRUCTION AND OPERATIONS	146
Department Mission and Facilities Construction and Operations.....	146
Building Design and Construction	146
LEED for Existing Buildings Operations and Maintenance (EBOM)	147
Indoor Environmental Quality (IEQ)	148
Daylighting and Views in New Construction	148
CalGreen Measures -Mandatory Measures and Relevant and Feasible Voluntary Measures of the California Green Building Standards Code	149
CALGreen Tier 1 Indoor Environmental Quality Measures	149
IEQ-New Buildings and Renovation Measures.....	150
Furnishing Standards	150
Green Seal Cleaning Products	151
Cleaning Procedures – Various Standards	151
Cleaning Procedures – Title 8, Section 3362	152
TITLE 8 SECTION 3362 CLEANING PROCEDURES STANDARDS ACHIEVED	153
HVAC Operation Requirements.....	153
HVAC Inspection Requirements.....	155
Integrated Pest Management (IPM)	156
Fossil Fuel Landscaping Equipment Replacement with Low Emitting Landscaping Equipment	159
Location Efficiency.....	159
CHAPTER 7 - WASTE MANAGEMENT AND RECYCLING	163
Department Mission and Waste Management and Recycling	163

Waste and Recycling Programs.....	164
SARC Report.....	167
Organics Recycling.....	169
Hazardous Waste Materials.....	172
Universal Waste Program.....	175
Material Exchange Programs.....	176
Waste Prevention Program.....	178
Reuse Program	180
Employee Waste and Recycling Training and Education	181
CHAPTER 8 - PROCUREMENT	183
Department Mission and Procurement.....	183
Environmentally Preferable Purchasing (EPP).....	183
EPP BMPs.....	185
Reporting on State Agency Buy Recycled Campaign (SABRC), and Reducing Impacts.....	188
Reducing Impacts	190
CHAPTER 9 – FUNDING OPPORTUNITIES.....	192
Full Life Cycle Cost Accounting.....	198
CHAPTER 10 – PUBLIC EDUCATION AND OUTREACH.....	199
APPENDIX A – SUSTAINABILITY LEADERSHIP	200
APPENDIX B - SUSTAINABILITY MILESTONES & TIMELINE	201
APPENDIX C – ACRONYMS	202
APPENDIX D - GLOSSARY	205
APPENDIX E – DEPARTMENT STAKEHOLDERS.....	210
APPENDIX F – SUSTAINABILITY STATUTORY REQUIREMENTS, EXECUTIVE ORDERS, AND MANAGEMENT MEMOS REFERENCES	217
APPENDIX G LIST OF TABLES AND GRAPHS	227

EXECUTIVE SUMMARY

The California Department of Justice – Office of the Attorney General (DOJ) is a constitutional office representing the people of California in civil and criminal matters before trial, appellate, and supreme courts of California and the United States. DOJ owns and occupies 8 buildings, occupies 6 buildings owned by the Department of General Services (DGS), and leases 19 buildings from non-state entities, for a total of 33 facilities that it occupies statewide, totaling 1,772,476 square feet. DOJ's work force is made up of 5,451 lawyers, investigators, sworn peace officers, and other employees who work in partnership with state and local agencies to:

- Enforce and apply laws fairly and impartially.
- Ensure justice, safety, and liberty for everyone.
- Encourage economic prosperity, equal opportunity, and tolerance.
- Safeguard California's human, natural and financial resources for this and future generations.

DOJ supports environmental sustainability in several ways. DOJ's legal division has (1) an Environmental Justice and Protection Section that enforces state and federal environmental laws affecting California's natural resources, communities, and public health, (2) a Natural Resources Law Section that represents multiple state agencies responsible for natural resources management or pollution control, and (3) a Land Use and Conservation Section that represents the state in land use litigation and in cases involving lands that the state owns and administers for resource conservation, recreation or development. While DOJ's attorneys investigate and litigate matters concerning global warming, hazardous waste, air and water pollution, and natural resources conservation, this Roadmap focuses primarily on sustainability efforts for facilities owned by DOJ. In April 2020, DOJ established the Sustainability Unit, which is responsible for the development and implementation of the Department's sustainability program and coordinating DOJ operations to align and be consistent with goals, regulations, and guidelines of existing and evolving state sustainability policies. The Sustainability Unit also consolidates and delivers the bi-annual Sustainability Roadmap report.

This Roadmap was created in response to the Governor's Executive Orders (EOs) and various sustainability mandates and policies (Appendix F, page 218). It describes goals, steps, and plans to achieve sustainability objectives for DOJ owned buildings, which consists of eight forensic laboratories that operate under

the Bureau of Forensic Services (BFS). These are: Ripon, Riverside, Freedom, Fresno, Santa Barbara, Eureka, Redding, and Santa Rosa. Where DOJ occupies buildings owned by DGS, that agency ensures sustainability compliance for them. Where buildings are occupied by DOJ and owned by a private lessor, DOJ makes sustainability efforts to ensure those leased buildings comply with the applicable sustainability policies. DOJ is making progress toward achieving the targets and requirements of the Governor's EOs and is committed to accomplishing these goals.

There are ten chapters in this Roadmap: Climate Change Adaptation, Zero Emission Vehicles (ZEVs), Energy, Decarbonization, Water Efficiency and Conservation, Facilities' Construction and Operations, Waste Management and Recycling, Procurement, Funding Opportunities and Public Education and Outreach each summarized below.

Climate Change Adaptation

In a changing climate, DOJ identifies climate adaptation strategies for its facilities to help reduce climate risks at its forensic lab facilities. Chapter 1 is reporting on climate risks data from Cal-Adapt and other sources, including extreme temperatures, urban heat islands, precipitation changes, sea level rise, and wildfire threats. The department considers the importance of infrastructure projects to be integrated into planning and investment for climate change, as mandated by [Executive Order B-30-15](#).

The initial mitigation plans involve implementing energy-efficient and clean energy generation measures in the BFS labs. The Sustainability Unit is also prioritizing natural infrastructure solutions including landscape retrofits for these facilities. Additionally, DOJ is reviewing its plan to mitigate the risks of public safety power shut offs (PSPS) events. Tracking progress and implementing adaptive management approaches are emphasized to reduce climate risks to the lab facilities.

The outlined climate risks are being considered for any new construction, leases, and landscape/facility projects.

Zero Emission Vehicles (ZEV)

This chapter outlines DOJ's progress on its Zero Emission Vehicle (ZEV) Report and Plan, describing fleet composition, fuel types, greenhouse gas (GHG) emissions, telematics implementation, take-home vehicle status, and ZEV adoption. DOJ employs vehicles mainly for law enforcement, emergency response, and administrative purposes. DOJ's fleet consists mainly of public safety (sworn) vehicles and vehicles requiring large cargo/passenger capacity that are up 85%

of the fleet, it presents challenges for DOJ integrating ZEVs into the fleet, especially for medium- and heavy-duty vehicles used in law enforcement missions. The [EO-16-12 Public Safety Special Performance Exemption](#) – [SAM 4124.4](#) applies to undercover sworn vehicles and the ZEV's adoption is contingent on factors like range limitations and infrastructure availability. Where feasible, DOJ is replacing vehicles with plug-in hybrid vehicles (PHEV), followed by hybrid electric vehicles (HEVs) per [State Administration Manual \(SAM\) 4121.1](#) prioritizing mission-critical needs and cost-effectiveness. To date, DOJ has implemented the following strategies:

- Installation of Beam ARC Chargers at five of the eight forensic laboratory facilities owned by DOJ.
- DOJ has increased the HEVs in its light duty fleet from 45 hybrids in 2021 to 81 in 2024. Two PHEVs and two Electric Vehicles (EVs) were also added to the fleet from 2023 to 2024.
- Decreased vehicle fuel consumption emissions by 47% percent since 2010 compared to 2024 due to the addition of PHEVs and HEVs, as well as the pandemic. DOJ fleet uses alternative and cleaner fuel types and will look forward to increasing its consumption to further reduce GHG emissions due to fleet operations.
- DOJ has implemented a total of 521 out of the 532 required installs that is a 97.9% telematics compliance for non-sworn and sworn vehicles. Telematics data is used to assess the fuel demand and analyze a foreseeable implementation process for hybrid and ZEV vehicles.
- DOJ currently has 307 vehicles with a Vehicle Home Storage Permit (VHSP) certified status, which is 56% of DOJ's total fleet.
- The DOJ's telework policy (DOJ Administrative Manual -Chapter 20) encourages teleworking for employees based on workload, work conditions, and organizational needs, which reduces in-person meetings and vehicle use.

Energy

DOJ's energy use and trends show that total purchased energy has decreased 17% from baseline (2003) to 2024. The Department's average Energy Use Intensity (EUI) also shows a decrease of 20%. The energy surveys conducted on Department-owned buildings in the last five years include surveys conducted in 2022 on LED lighting and HVAC upgrades and energy equipment retrofit (including solar) for all eight DOJ-owned crime labs. These surveys guide DOJ's energy efficiency projects and maintenance activities to focus on the highest energy-use buildings.

To further reduce energy use, find and implement greener, more efficient alternatives, DOJ is currently:

- Collaborating with DGS and PG&E to complete LED lighting fixture retrofits and install on-site solar photovoltaic (PV) systems for laboratories that are owned by DOJ which will generate an estimated annual cost savings of \$302,339.
- Encouraging telework for employees (that includes office sharing and hoteling), which is expected to reduce energy consumption at worksites.

DOJ is also actively participating in the demand response program to reduce energy use in the lab buildings in response to energy emergency alerts, as they remain operational.

DOJ is committed to meeting sustainability goals by further implementing the use of renewable energy sources, as well as incorporating best management practices and retro-commissioning projects to support cost-effective and energy efficient building operations.

Decarbonization

DOJ has been reporting greenhouse gas (GHGs) emissions due to electricity, natural gas, and vehicle fuels purchases for its facilities into the Climate Registry Information System (CRIS) since 2020. There has been progress in reducing emissions by 49%, which exceeds the 20% emissions reduction goal as compared to a 2010 baseline in compliance with [Executive Order B-18-12](#).

This chapter also provides an overview of DOJ's Decarbonization Plan, which identifies the department's energy efficiency and electrification projects and the timelines necessary to achieve net zero emissions by 2035 to be in compliance with [SB 1203](#). Projects include LED lighting retrofits, HVAC/boiler/water heater upgrades, and installing on-site renewable energy solutions such as solar. DOJ is currently in the process of installing rooftop solar at four of its eight labs and retrofitting the lighting at all labs and other infrastructure where needed and as funding becomes available. These projects are prioritized based on critical needs, which include failing equipment and those measures that will help the department balance between those identified for capital improvement, deferred maintenance, policy compliance, etc., and those that will have the greatest impact on the department's decarbonization plan.

Water

DOJ has made a significant amount of effort into reducing its water use. Overall, the Department has been steadily decreasing its per capita water usage from 2020 to 2021, spiking in 2022 followed by a 12% decrease. However, DOJ observed an increase in 2024, which is likely caused by record high temperatures that year leading to increased use of indoor and outdoor water. DOJ plans to mitigate this in the future by retrofitting the landscape of select labs to lower water demand. Other water conservation efforts DOJ is currently taking are to regularly maintain the Dolphin water treatment system installed at four DOJ lab locations to continue saving water long-term. DOJ is also working with DGS to improve the water saving infrastructure at these four DOJ labs by installing a water system that reclaims used water from the cooling towers to reuse it for landscape irrigation; and DOJ is working with outside organizations, including DWR design and landscape architects, to assess converting landscaping at DOJ facilities to a more drought tolerant environment according to lab staff preference. The implementation of separate indoor and outdoor metering will also be considered in efforts to track and reduce purchased water usage, besides the installation of reclaimed water systems and the upgrading of cooling towers, boilers, and irrigation systems.

Furthermore, DOJ aims to contribute to statewide water conservation goals by integrating water-saving practices into its operations while promoting responsible water use across its facilities.

Facilities' Construction and Operations

The department's core mission to enforce the law, ensure public safety, and uphold justice across the state demands complex investigations, legal proceedings, forensic analysis, and oversight of correctional facilities—directly shapes our infrastructure and resource needs. Therefore, CA DOJ is committed to include standard procedures and best practices while carrying out our critical public service mission and continually staying compliant with Executive Orders and reducing its environmental footprint by:

- Implementing Indoor Environmental Quality (IEQ) and following furnishing standards given by DGS, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), and the California Prison Industry Authority (CALPIA).
- Contracting for cleaning procedures complies with CalPIA or Green Seal Standard GS-37 cleaning products purchasing and cleaning procedures standards including Title 8 Section 3362.

- Following the operation and maintenance requirements as well as inspection of HVAC systems.
- Integrating Pest Management (IPM) protocols from contracted pest management companies.

Through its first Energy Savings Performance Contract (ESPC) Project DOJ will be advancing towards building commissioning for existing buildings to facilitate improved and efficient building operations. The facilities team will look into improving location efficiency for leased facilities whenever possible to further reduce GHG emissions.

Waste Management & Recycling

The California Department of Justice upholds the rule of law, protects the public and ensures justice for all Californians. This includes the responsibility of managing resources, supporting a clean future, and ensuring facilities reduce waste and dispose of recycling and waste safely and equitably. Accordingly, the department has implemented waste diversion and recycling programs in compliance with the state requirements. The Sustainability Unit reports annual Waste Management and Recycling into the State Agency Reporting Center (SARC) system that is administered by the California Department of Resources Recycling and Recovery ([CalRecycle](#)). The total waste generated in 2024 decreased by 82% compared to 2003 and by 15% compared to 2020. The per capital disposal rate was 0.16 pounds per person for both 2023 and 2024, given the department's workforce of 5,653 employees during those years. This rate is 74% lower than the target Per capita Disposal Rate (pounds/person/day) of 0.6. Therefore the results are exceeding the solid waste reduction target.

DOJ is actively working on ensuring organics diversion programs following the SB 1383 organics collection requirements. Currently, there are at least seven facilities that are eligible for waiver to exempt them from this policy, a process that is under review for approval by CalRecycle. DOJ has also implemented standard procedures for hazardous and universal waste management to ensure human health and environmental safety. Therefore, DOJ has dedicated safety officers that oversee the hazardous waste management procedures and North State Environmental provides Hazardous waste disposal services. The sustainability unit manages the battery recycling program and is currently working on a contract for all facilities. DOJ will continue to improve waste diversion and support long term sustainability goals by expanding and enhancing its employee waste and recycling training in the coming years.

Procurement

In efforts to meet the department's mission and adhere to state mandated goals for procurement of sustainable and recycled content products (RCP), the department has dedicated units to promote and implement the Environmentally Preferred Purchasing (EPP) and the State Agency Buy Recycled Campaign (SABRC) requirements. Consistently, DOJ has developed and implemented policies for all programs to opt for EPP products and recycled-content purchasing.

In order to meet EPP criteria, a commodity or product might be categorized within the potential to green. In other words, it refers to a good and/or material's potential to offer the highest opportunity to significantly reduce their environmental footprint. A best practice in our department for green purchases is implemented when procurement staff considers products with ecolabels, post-consumer recycled content, or take back requirements. The top five commodities that the department buys that have the greatest potential to green are glass, paper, and plastic products within office supplies, and metal products. The Procurement Unit has reported EPP purchases for FY 2023-2024 at 95%. The Contracts and Purchasing Unit (CPU) tracks and reports annually to DGS all recycled-content products (RCP) purchases in the State Agency Buy Recycled Campaign (SABRC) report. The 2023-2024 SABRC reported paper-based office supplies, metal, textile products and tires that meet or exceed the 75% spending goal for SABRC compliance. The department will continue applying EPP Best Management Practices (BMPS) and purchasing standards by enforcing Administrative Bulletin 23-17 and substitute recycled products whenever possible to reduce the environmental impacts of the department's purchased goods and services. The department promotes and tracks EPP training for staff, such as buyers, approvers, and program managers and is planning to implement this requirement for all staff.

Funding

DOJ's current financing model is developed through partnerships with Energy Services Companies (ESCO) that deliver energy savings performance contracts (ESPC) which improve performance as well as achieve return on investment (ROI). This funding goes towards sustainable projects and operations such as energy efficiency upgrades, water conservation projects, and more. Full Life-cycle cost analysis (LCCA) will be considered in the future for any new building design, operations, and other built infrastructure investment plans with DGS support.

Public Education and Outreach

DOJ's efforts and progress to implement sustainable operations and practices are available to the public at the Green California website. And all DOJ employees have access to sustainability policies, information, and resources to help them apply best management practices, get training, and contribute from their positions and responsibilities to accomplish the department's and the state's sustainability goals.

All sustainability related questions, comments, and suggestions can be submitted to the sustainability inbox sustainability@doj.ca.gov.

Chief Deputy of Operations

Erin Suhr

CHAPTER 1 - CLIMATE CHANGE ADAPTATION

Department Mission and Climate Change Adaptation

This chapter explains how the department's operations and infrastructure align with its mission. Its mission determines how the agency uses resources like water, energy, and transportation as well as administrative tasks like waste management and purchasing. These administrative tasks determine how the department responds to climate change and manages its greenhouse gas emissions.

For all infrastructure, it is important to assess the risk a changing climate poses to an asset or project (e.g., sea level rise or increasing daily temperatures). It is also important to recognize the impact an infrastructure project has on the surrounding community and the impacts on individual and community resilience (e.g., heat island impacts).

Considering the information outlined in this chapter, DOJ is looking to perform a rough risk management process to determine how to integrate climate considerations into planning or investment decisions following four steps suggested by the [Department's Climate Risk Assessment Process Guide](#):

- DOJ would identify how to consider how climate change may impact, or be affected by a given project, plan, or existing infrastructure over its expected functional lifetime.
 1. Conduct an analysis of climate risks under different scenarios and approaches.
 2. The sustainability team will work with DOJ facilities' directors and staff to implement informed decisions evaluating alternatives or design and applying the decision-making principles of building resilience: prioritizing actions that utilize natural and green infrastructure solutions and enhance and protect natural resources as well as promote integrated climate action, equity, and foster community resilience; coordinating with local and regional agencies; and basing all planning and investment decisions on the best-available science. DOJ will consider climate adaptation strategies when facilitating projects and replacing building systems including:
 - Evaluating whether the new project, materials, or system needing replacement will operate effectively in a changing climate (depending on climate risks existing for that particular location);
 - Evaluating whether the new project, materials or system needing replacement incorporates Zero Net Energy (ZNE) approaches.

Consideration and implementation of ZNE approaches will make buildings operate more efficiently (see Chapter 3 Energy section); and,

- Evaluating how the new project, materials, or system needing replacement will affect the staff (operational/health wise), the surrounding community, and the environment.
3. Given the uncertainty of climate change in California, Sustainability will continue tracking and monitoring progress by regularly reporting the climate impact metrics included in this chapter that provide information about the climate-related changing conditions and scenarios to understand the rate and magnitude of climate impacts on the performance of a project, plan, or investment.

DOJ's portfolio consists of many facilities leased from non-state entities, and climate adaptation changes are challenging to implement at these locations. In order to make any major changes, replacements, or renovations to leased facilities, the lessor or owner of the property must agree to the contract terms. Accordingly, the sections in this chapter focus on the DOJ's eight properties that are department-owned: the DOJ's Bureau of Forensic Services (BFS) crime laboratories, where there are fewer barriers to change regarding climate considerations. DOJ looks forward to including leased sites in future assessments.

Climate Change Risks to Facilities

Climate Change Risk Process:

[Executive Order B-30-15](#) directs State Agencies to integrate the consideration of climate change into all planning and investment, which can include the following:

- Infrastructure and capital outlay projects
- Grants
- Development of strategic and functional plans
- Permitting
- Purchasing and procurement
- Guidance development
- Regulatory activity
- Outreach, and education

[EO B-30-15](#) directs State agencies to prioritize the use of natural and green infrastructure solutions. 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\(c\)\(3\)](#)).

Assessing Risk from Changing Extreme Temperatures:

The data below report all extreme temperature changes to be compared and analyzed from the baseline period (1961-1990). This data source is [Cal-Adapt](#).

Table 1.1: Top 5-10 Facilities that Will Experience the Largest Increase in Extreme Heat Events

Facility Name	Extreme heat threshold (EHT)°F	Average # of days above EHT (1961-1990)	Average # of days above EHT (2031-2060)	Change from Historical to projected average # of days above EHT (2031-2060)	Avg. # days above EHT (2070-2099)	Change from historical to projected average # of days above EHT (2070-2099)
BFS-FRESNO	106.8	4.0	25.0	21.0	41.0	37.0
BFS-RIVERSIDE	103.6	4.0	20.0	16.0	30.0	26.0
BFS-REDDING	107.1	3.0	17.0	14.0	25.0	21.0
BFS-RIPON	102.7	4.0	17.0	13.0	25.0	21.0
BFS-SANTA ROSA	98.7	3.0	11.0	8.0	15.0	12.0
BFS-SANTA BARBARA	89.1	4.0	8.0	4.0	11.0	7.0
BFS-FREEDOM	90.2	4.0	7.0	3.0	9.0	5.0
BFS-EUREKA	76.6	1.0	4.0	3.0	8.0	7.0

Table 1.2a: Top 5-10 Facilities Most Affected by Changing Temperature – Annual Mean Max. Temp

Facility Name	Historical Annual Mean Max. Temp. (1961 – 1990)	Annual Mean Max. Temp. (2031 – 2060)	Change from Historical Mean Max. Temp (2031-2060)	Annual Mean Max Temp. (2070-2099)	Change from Historical Mean Max. Temp (2070-2099)
BFS-RIVERSIDE	78.8	83.2	4.4	85.0	6.2
BFS-FRESNO	77.1	81.3	4.2	83.2	6.1
BFS-REDDING	75.0	79.0	4.0	80.8	5.8
BFS-RIPON	74.5	78.3	3.8	80.0	5.5
BFS-SANTA ROSA	71.2	74.6	3.4	76.1	4.9
BFS-EUREKA	58.9	61.9	3.0	63.4	4.5
BFS-FREEDOM	67.3	70.3	3.0	71.1	3.8
BFS-SANTA BARBARA	70.1	73.0	2.9	74.2	4.1

Table 1.2b: Top 5-10 Facilities Most Affected by Changing Temperature - Annual Mean 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)
BFS-RIVERSIDE	50.6	54.7	4.1	56.2	5.6
BFS-REDDING	50.8	54.6	3.8	56.1	5.3
BFS-FRESNO	48.3	51.8	3.5	53.3	5.0
BFS-RIPON	47.9	51.3	3.4	52.7	4.8
BFS-SANTA ROSA	44.0	47.2	3.2	48.6	4.6
BFS-EUREKA	46.2	49.3	3.1	50.9	4.7
BFS-FREEDOM	46.1	49.1	3.0	50.4	4.3
BFS-SANTA BARBARA	48.9	51.6	2.7	52.8	3.9

Assessing Risk from [Heating Degree Days \(HDD\)](#) and [Cooling Degree Days \(CDD\)](#)

There are several factors to consider when identifying the facilities that are most at risk from Heating Degree Days (HDD) and Cooling Degree Days (CDD). The location and criticality of the facility, its operations and the criticality of those operations, the effects of current temperature events, the sensitivity of operations to temperature changes, the impact of disruption, and the sensitivity/vulnerability of the population or area served by a facility.

Table 1.3a: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Heating Degree Days (HDD)

Facility Name	Heating Degrees 1961-1990	Average Modeled Heating Degrees (year), 2031-2060	Change in Heating Degree Days Historical to Mid-Century	Average Modeled Heating Degrees (year), 2070-2099	Change in Heating Degree Days Historical to End-Century
BFS-EUREKA	4537.0	3463.0	1074.0	2945.0	1592.0
BFS-FREEDOM	3112.0	2199.0	913.0	1834.0	1278.0
BFS-SANTA ROSA	3052.0	2289.0	763.0	1995.0	1057.0
BFS-SANTA BARBARA	2305.0	1571.0	734.0	1314.0	991.0
BFS-FRESNO	2668.0	1975.0	693.0	1741.0	927.0
BFS-Ripon	2647.0	1986.0	661.0	1744.0	903.0
BFS-REDDING	2618.0	2021.0	597.0	1795.0	823.0
BFS-RIVERSIDE	1578.0	1028.0	550.0	836.0	742.0

Table 1.3b: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Cooling Degree Days (CDD)

Facility Name	Cooling Degrees 1961-1990	Average Modeled Cooling Degrees (year), 2031-2060	Change in Cooling Degree Days Historical to Mid-Century	Average Modeled Cooling Degrees (year), 2070-2099	Change in Cooling Degree Days Historical to End-Century
BFS-RIVERSIDE	1555.0	2469.0	914.0	2883.0	1328.0
BFS-FRESNO	1880.0	2636.0	756.0	3008.0	1128.0
BFS-REDDING	2035.0	2742.0	707.0	3119.0	1084.0
BFS-RIPON	1272.0	1913.0	641.0	2236.0	964.0
BFS-SANTA ROSA	369.0	791.0	422.0	1034.0	665.0
BFS-SANTA BARBARA	243.0	578.0	335.0	754.0	511.0
BFS-FREEDOM	94.0	250.0	156.0	403.0	309.0
BFS-EUREKA	8.0	32.0	24.0	75.0	67.0

Reporting Narrative on Tables 1.3a and 1.3b: HDD and CCD

Tables 1.3a and 1.3b list the DOJ's forensic laboratory facilities that are most impacted by projected changes in Heating Degree Days (HDD), and Cooling Degree Days (CDD). The BFS labs located in Coastal California, Eureka, Freedom, Santa Rosa, and Santa Barbara, show a trend toward greater increases in heating degree days, which would demand higher energy during cold seasons.

The larger labs, Riverside, Fresno, Redding, and Ripon are more susceptible to be affected by increasing demand of energy for cooling to maintain adequate conditions and operations. These facilities are also the most at risk from extreme temperatures, both maximum and minimum temperatures, and are projected to experience the largest increase in extreme heat events.

Since the magnitude of extreme heat or cool temperatures can negatively affect the facilities, temperature is important to stay operational at all eight DOJ-owned forensic laboratory facilities because they manage and preserve evidence, samplings, and equipment requiring proper care and storage under certain temperatures. It is essential that a laboratory's heating and cooling system operates permanently, correctly, and efficiently.

The facilities team is responsible for ensuring that the heating and cooling systems be properly maintained. So far, most of the facilities have not reported extreme temperatures affecting their facilities.

The use of proper surrounding natural infrastructure can significantly reduce impacts of increasing CDDs at facilities exposed to highest risk. This strategy has been implemented at the top facilities at risk for more CDDs: Redding, Ripon, Fresno, and Riverside. Redding has a significant amount of shrubs and mature trees versus concrete, where heat can be trapped. However, these metrics suggest that additional work needs to be done.

Plan to Mitigate HDD and CDD

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

Facility Name	Abbreviated Mitigation/Adaptation Plan 2030
BFS-RIVERSIDE	HVAC: condensers and ductless split systems. Landscape retrofit.
BFS-FRESNO	Rooftop photovoltaic solar systems. HVAC: condensers, and ductless split systems. Landscape retrofit.
BFS-REDDING	HVAC: condensers and ductless split systems. Landscape retrofit.
BFS-RIPON	HVAC: condensers and ductless split systems. Landscape retrofit.
BFS-SANTA ROSA	TBD.
BFS-SANTA BARBARA	Rooftop Photovoltaic Solar systems.
BFS-FREEDOM	Rooftop Photovoltaic Solar systems.
BFS-EUREKA	Rooftop Photovoltaic Solar systems.

Planning Narrative on PO1: a: Mitigate HDD and CDD

The climate risk data analysis has allowed DOJ to integrate climate considerations into planning and investment.

DOJ looked at its laboratory facilities that could pose a risk for excessive energy usage and is moving forward in the implementation and construction phase of a project that will install energy and water savings measures to the BFS labs. With this project the department will reduce energy usage, GHG emissions, and dependency on the electricity grid at the DOJ owned labs by installing solar

systems and upgrading the HVAC systems (replacing the condensers at Redding and Fresno; and replacing the ductless split systems at Riverside, Fresno, and Ripon).

Moreover, DOJ is aware of how the retrofitting landscape project can affect the top facilities at risk for more CDD, facilities in locations such as Redding, Ripon, Fresno, and Riverside. The next step is to design plans to identify the lowest-cost implementation and maintenance solutions by providing functional landscaping to reduce the impact of extreme heat or cool temperatures and potentially reduce energy demand while maintaining the ecological services. DOJ will continue searching for funding alternatives for this project and additional clean energy generation and HVAC systems upgrades for all the BFS labs to improve mitigation and adaptation and reduce the impacts in terms of energy requirements from changing temperatures.

Assessing Risk from Urban Heat Islands

"Urban Heat Islands" occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.

Urban Heat Islands are a concern as the ability to control their effects on employees and operations may be beyond the ability of the department. Departments need to know the impact of urban heat islands on their facilities and need to factor in the additional energy load that may be required to mitigate the additional heat.

A facility's immediate surroundings are also important. Large expanses of hardscape near the building increase the temperatures significantly. Landscaping plays a vital role in heat island mitigation, especially shade trees.

Table 1.4: Facilities in Urban Heat Islands

Facility Name	Located in an Urban Heat Island (Yes or No)	sq. ft. of Surrounding Hardscape or Pavement if greater than 5000 sq. ft.
BFS-EUREKA	No	9,771
BFS-FREEDOM	No	11,086
BFS-FRESNO	Yes	36,007
BFS-REDDING	No	16,799
BFS- RIPON	No	10,730
BFS-RIVERSIDE	Yes	12,603
BFS-SANTA BARBARA	Yes	13,800
BFS-SANTA ROSA	Yes	15,645

Reporting Narrative on Table 1.4: Urban Heat Islands

Most DOJ lab facilities are not located in urban heat islands and have trees and shrubs surrounding the building and a parking lot to reduce urban heat island effect and provide more cooling to its facility. However, three of DOJ's laboratories are in urban heat islands: Santa Rosa, Riverside and Fresno, with Urban Heat Island (UHI) Index of 31,925, 27,985, and 22,649, respectively. In addition, for Santa Barbara the urban heat effect risk is marginal (UHII=5,002).

Riverside has over 5,000 sq. ft. of parking and other impervious surrounding surfaces. As mentioned before, this facility is on the radar due to CDD high risks as well. DOJ's Sustainability Unit will do more assessing to further minimize the effect of heat spikes and the potential impacts that could affect laboratory work. Priority will be given to those facilities with an abundance of pavement to address the urban heat island effect with adaptations that include planting more vegetation, such as drought tolerant native trees and shrubs around the buildings and parking lots. The natural landscape absorbs less heat and provides shading as well as cooling of the environment through evapotranspiration.

Planning Outline for Urban Heat Islands Mitigation:

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

Facility Name	Mitigation or Plan	Est. Implementation Date
BFS-RIVERSIDE	Landscape retrofit	2027

Planning Narrative for PO1.b: Urban Heat Islands Mitigation

The Sustainability Unit is planning on retrofitting the landscaping with drought tolerant plants for the Redding, Ripon, Fresno, and Riverside labs as part of a reclaimed water project.

Plans would need to be made to implement this natural solution also at the Santa Rosa lab to diminish the effects of the highest Urban Heat Island risk at this facility. It challenges the Sustainability Unit to develop an appropriate plan that will mitigate the impermeable surface areas surrounding a facility at the speed the temperature is increasing.

Assessing Risk from Changes in Precipitation

Precipitation is critical to support the natural environment and water supply in California. The impacts of climate change on the amount of precipitation California will receive in the future are slightly less certain than the impacts on temperature. However, it is expected that California will maintain its Mediterranean climate pattern (dry summers and wet winters). As these dry and wet extremes occur more often, the state would experience swings between periods of drought and heavy rain. Therefore, more precipitation will fall as rain and less as snow. Larger spans of rainfall can result in flooding but will also result in shifts in runoff timing (earlier) and runoff volumes (higher). It will also result in decreased snowpack and their role in water supply.

Using data from Cal-Adapt, DOJ gathered the precipitation data for its lab facilities to calculate expected changes by mid and end of the century and extreme precipitation data reported in Table 1.5.

Table 1.5: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Precipitation

Facility Name	Annual Mean Max. Precip. (1961 – 1990) (in/yrs.)	Annual Mean Precip. (2031 – 2060) (in/yrs.)	Percent Change by mid-century	Annual Mean Precip. (2070 – 2099) (in/yrs.)	Percent change by end of century	Extreme Precip (1961-1990) (in/day)	Extreme Precip (2031-2060) (in/day)	Extreme Precip (2070-2090) (in/day)
BFS-EUREKA	43.0	45.3	5.3%	45.2	5.1%	2	3	4
BFS-FREEDOM	20.9	23.5	12.4%	22.7	8.6%	1	1	2
BFS-FRESNO	12.2	12.9	5.7%	12.1	0.83%	2	2	3
BFS-REDDING	40.8	43.8	7.4%	43.2	5.9%	2	3	3
BFS-RIPON	12	13.2	10%	12.6	5%	1	2	2
BFS-RIVERSIDE	12.3	12.7	3.3%	12.3	0%	1	2	2
BFS-SANTA BARBARA	18	19.9	10.6%	18.6	3.3%	2	2	2
BFS-SANTA ROSA	30.8	34.5	12%	34.2	11%	2	3	3

Source: [Cal-Adapt](#).

Reporting Narrative on Table 1.5: Precipitation Impacts

The precipitation data reported in Table 1.5 indicates precipitation changes by mid and end of century. Labs such as Eureka, Fresno, Redding and Riverside are below 10% of a change for the century. Labs such as Freedom, Ripon, Santa Barbara, and Santa Rosa have a percentage change that is higher than 10% but lower than 15%. All these labs also have a higher change between the mid-century range.

Planning Outline to Mitigate Precipitation Changes

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

Facility Name	Extreme Precipitation (2030) Plan or strategy
NO FACILITIES AT RISK	

Planning Narrative on PO1.c: Precipitation Changes Mitigation Plan

NO FACILITIES AT RISK

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)
BFS-EUREKA	North Spit	2.3	Yes	7.6	Yes
BFS-SANTA ROSA	Arena Cove	1.8	Yes	6.7	Yes
BFS-SANTA BARBARA	Santa Barbara	1.8	Yes	6.6	Yes
BFS-FREEDOM	Monterey	1.9	Yes	6.9	Yes

* Medium - High Risk Aversion projection data under high emissions scenario (Source: [State of California Sea-Level Rise Guidance](#) from the California Ocean Protection Council - OPC)

Reporting Narrative on Table 1.6: Sea Level Rise Impacts

Four laboratories owned by DOJ have a potential risk due to SLR projections: Eureka, Freedom, Santa Rosa, and Santa Barbara, from which the Eureka BFS lab is the one at more risk. Similar to the flooding occurring from increased precipitation, SLR has the potential to cause flooding requiring relocation of laboratories or other adaptation actions. However, assuming further analysis indicates not all buildings will be able to be relocated, other measures need to be researched to minimize the impacts of potential SRL impacts.

Planning Outline to Mitigate Sea Level Rise Impacts

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

Facility Name	Tide Chart Region	Plan 2030?
BFS-EUREKA	North Spit	No
BFS-SANTA ROSA	Arena Cove	No
BFS-SANTA BARBARA	Santa Barbara	No
BFS-FREEDOM	Monterey	No

Planning Narrative on PO1.d: Sea Level Rise Impact

DOJ does not yet have a plan regarding the potential future impact to the facilities at risk from rising sea levels (Eureka, Santa Barbara, and Freedom). However, it is on the radar as the Sustainability Unit researches new ways for our facilities to use natural infrastructure as an adaptation strategy for potential impacts. In the future, DOJ will develop a plan to reduce the impacts of sea level rise on facility performance, however, its implementation will be subjected to feasibility and funding.

Assessing Risks from Wildfire

The Integrated Climate Adaptation and Resiliency Program, Governor's Office of Planning and Research indicate that the western US and California have seen unprecedented fire activity in the last few decades, much of which is linked to complicating factors of climate change (warmer and drier conditions, longer fire seasons) and development in the Wildland Urban Interface (WUI).

The fire hazard severity zones include levels of fire risk potential from Cal Fire, but not all areas are included in the maps, based on the SRAs and other excluded zones (federal, Tribal, etc.). The Cal-Adapt data used in the tables includes historical values, as well as forward looking projections for intermediate (2030-2060) and long term (2070-2100) time periods.

These model data may not capture the dynamic potential of a particularly bad fire season or run of years. Neither the number of acres burned, nor the wildfire severity maps give a complete picture of fire risk but rather, they both give an

indication of areas that are at increased risk of wildfire activity, and the trendlines for changes to fire risk in the intermediate and long term.

Recent history in California over the last few decades illustrates a challenge with the longer-term modeling, with 18 of the 20 largest fires (in terms of acres burned), and 18 of the 20 most destructive fires (in terms of structures lost), occurring in the last 20 years (2003-2022); and 11 of the 20 largest fires, and 9 of the most destructive fires, occurring in the last 5 years (2018-2022). Therefore, this period of elevated fire activity may not be well reflected in the longer-term trends.

Wildfire Threats by Fire Hazard Severity Zone

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

Facility Name	Fire Hazard Severity Zone (FHSZ) Designation (low, medium, high, very high)
BFS-EUREKA	No FHSZ
BFS-FREEDOM	No FHSZ
BFS-FRESNO	No FHSZ
BFS-REDDING	High Risk
BFS-RIPON	No FHSZ
BFS-RIVERSIDE	Very High Risk
BFS-SANTA BARBARA	No FHSZ
BFS-SANTA ROSA	No FHSZ

Source: [CALFIRE data for Fire Hazard Severity Zones](#).

Reporting Narrative on Table 1.7: Assessing Facilities most at Risk to Wildfire Threats by Fire Hazard Severity Zones

Wildfire poses a risk to two out of the DOJ's eight laboratories. Currently, Redding and Riverside labs are the facilities at high and very high risk for wildfire threats by fire hazard severity zones.

With fire risks increasing every year, power shut offs increase as well. The risk of public safety power shut offs (PSPS) currently impacts four of the labs. DOJ's laboratory facilities contain generators with enough fuel for forty-eight hours in the case of power shut-off. The Redding laboratory, for example, has been temporarily closed on multiple occasions due to severe smoke and PSPS. These closures and their causes have impacted the health and safety of staff. These facilities stock

personal protective equipment (PPE) such as carbon impregnated air filters, air purifiers, and masks to help ensure the safety of employees.

Planning Narrative on Table 1.7: Assessing Facilities most at Risk to Wildfire Threats by Fire Hazard Severity Zones

DOJ's laboratory facilities have also developed evacuation procedures and perform regular landscape maintenance which contribute mitigating wildfire risk.

To lessen the possible effects of wildfire-hazard environments, sustainability will consider incorporating drought-tolerant, fire-resistant plants into the landscape retrofit project for the Redding and Riverside lab facilities.

Wildfire Threats as Measured by Impacts from Previous Wildfire Events

This section considers wildfire events that have impacted the department's operations in any manner over the last twenty years. These impacts may have been secondary to the actual wildfire event such as smoke exposure from a fire event many miles away or entry to the facility is restricted by firefighting activities elsewhere or the need to clear roads for evacuation efforts. It is important that your department understand all possible implications for a wildfire event.

It is possible that these wildfire events have reduced the potential for wildfire impacts to the department's facilities in the near future. Conversely, if the department's facility is in a high fire hazard severity zone that has not experienced a wildfire event, then that fact needs to be considered as well, as all these factors affect wildfire risk assessments.

Table 1.8 describes previous wildfire impacts on the department facilities to evaluate the risk for planning considerations.

Table 1.8: Facilities Impacted by Previous Wildfire Events (Last 20 Years)

Facility Name	Impact Category		Year of Impact	Fire Name
	Choose	Operations Disruptions		
BFS-SANTA BARBARA	Smoke Impacts, Staffing Disruptions		2017	Thomas Tubs
BFS-RIVERSIDE	Operations Disruptions, Staffing Disruptions		2018 2025	Tubs Palisades
BFS-SANTA ROSA	Smoke Impacts, Staff Evacuations, Fire Imposed Restrictions on Facility Access, Operations Disruptions		2018	Tubs
BFS-REDDING	Smoke Impacts, Operations Disruptions, Staffing Disruptions		2018	Tubs

Source: Lab Facilities staff and the California Historic Fire Perimeters.

Reporting Narrative on Table 1.8 Wildfire Threats as Measured by Impacts from Previous Wildfire Events.

There are many wildfires that occur in Southern California, yet the Tubs fire in 2018 was the most impactful for the labs in the past 20 years. Riverside, Santa Rosa, Santa Barbara, and Redding were all affected. Santa Barbara, Santa Rosa and Redding all had smoke impacts that required labs to replace all air filters once the smoke dissipated. In Santa Rosa, the filters were completely black. In Redding, the building had inadequate air purification during Air Quality Index (AQI) events. The High Efficiency Particulate Arresting (HEPA) filters clog quickly and are very expensive. The HVAC system is designed to replace the air in the building too quickly and it is tied to the fume hoods so it can't be reduced in flow.

Each of the labs have either had staffing evacuations or staffing disruptions. In Santa Rosa, Santa Barbara, and Redding staff had lost their homes, three full time staff members had to evacuate while some staff had lost power but were not evacuated.

Riverside, Santa Rosa, and Redding all went through operational disruptions. Riverside lost electricity that impacted their instruments, therefore they needed to have vendors come out to do repairs for them to work. The back-up generator and UPS had repairs for the facility to stay resilient in case another wildfire affected their operations again. Santa Rosa was shut down for a full week. Staff were not allowed to cross the road closures. Redding reduced staffing due to teleworking for evacuations. Additionally, Santa Rosa was impacted by fire-imposed restrictions on facility access. The lab was in an evacuation zone for a full week. These roadblocks were set up on streets surrounding the lab. Some staff were

directed to move the state vehicles if the fire made it to the lab location. There was damage within one block of the Santa Rosa lab location.

Planning Outline PO1.e: Plan for Mitigating Wildfire Risk for Top 5-10 Facilities Most at Risk.

Facility Name	Plan 2026-2030
BFS-RIVERSIDE	Yes
BFS-REDDING	Yes

Planning Narrative on PO1.e: Mitigating Wildfire Risk for Top 5-10 Facilities Most at Risk

In accordance with the steady increase of wildfires within the State, DOJ will consider planning on more wildfire risk mitigation strategies for the laboratories being at most risk to be affected wildfires. Since wildfires commonly trigger PSPS events, the department would need to implement and coordinate the emergency procedures for evacuation and response as well as to allocate stocking all Lab facilities with fuel to sustain normal operations for more than forty-eight hours.

However, further analysis should be performed to determine what other protective measures can be implemented depending on availability of funding.

Understanding Climate Risk to Planned Facilities

In April 2015, the Governor issued [EO B-30-15](#), establishing greenhouse gas reduction targets and specifying steps for consideration of climate impacts. The EO requires all state agencies to consider the impacts of climate change in all planning and investment activities, including capital outlay projects. All Five-Year Infrastructure Plans must include information about how departments will integrate climate adaptation strategies into planning their infrastructure projects, and how this information will be used to inform the development of future guidance for incorporating climate adaptation and resilience into infrastructure planning.

Reporting Narrative for Tables 1.9a-g: Understanding Climate Risks to Planned Facilities

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

a.1 Annual Mean Max. 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)	<u>Annual Mean Max. Temp. (2070-2099)</u>	<u>Change from Historical to Annual Mean Max. Temp (2070-2099)</u>
NO NEW FACILITIES					

a.2 Annual Mean Min. 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)
NO NEW FACILITIES					

b. Annual Mean Max. Precipitation

Facility Name	Annual Mean Maximum Precipitation (1961 – 1990) (in/yr.)	Annual Mean Precipitation (2031 – 2060) (in/yr.)	Extreme Precip (1961-1990) (in/day)	Extreme Precip (2031-2060) (in/day)
NO NEW FACILITIES				

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
NO NEW FACILITIES				

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
NO NEW FACILITIES					

e. Wildfire Risks by Fire Hazard Severity Zone

Facility Name	Current Fire Hazard Severity Zone (low, medium, high, very high)
NO NEW FACILITIES	

f. Facilities Impacted by Previous Wildfire Events (Last 20 Years)

Facility Name	Impact Category Choose an item.	Year of Impact	Fire Name
NO NEW FACILITIES			

g. Risk from Heating Degree Days/Cooling Degree Days

Facility Name	Heating/Cooling Degree Days (1961-1990) (HDD/CDD)	Heating/Cooling Degree Days (2031-2060) (HDD/CDD)
NO NEW FACILITIES		

Planning Narrative for Tables 1.9a-g: Understanding Climate Risks to Planned Facilities

NO NEW FACILITIES

DOJ currently has no approved plans for new construction facilities. However, any new, planned facilities will undergo climate adaptation screening to ensure the new facility incorporates climate adaptation strategies to all climate risks mentioned earlier.

Understanding the Potential Impacts of Facilities on Communities

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 social and economic factors that are 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; incarcerated populations; linguistically or socially isolated individuals; communities with less access to healthcare or educational resources; or communities that suffered historic exclusion or neglect.

While there is no single tool to identify vulnerable populations in an adaptation context, there are several state-wide, 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.

Reporting on Facilities located in Disadvantaged Communities

DOJ labs provide forensic services to local disadvantaged communities at Riverside and Fresno Labs. If the Riverside lab which is located at very high risk for wildfire threats by fire hazard severity zone must close due to a PSPS event - this puts the community around at risk to being a “vulnerable community” for not having access to forensic services when there are urgent cases that need to be processed or when emergency lab equipment is needed.

In contrast, the Fresno location can be of assistance to emergency responders in the event of a power outage. Recently, Fresno received a portable electric vehicle charging station. This station utilizes solar panels for electricity generation and is not connected to the grid. If the community were to lose power, the charging station has household-style electrical outlets that emergency responders can utilize to power their equipment.

Table 1.10: Facilities Located in Disadvantaged Communities

Facility Name	CalEnviroScreen 4.0 Percentile Score	Located in a disadvantaged community? Yes/No
BFS-EUREKA	53%	No
BFS-FREEDOM	19%	No
BFS-FRESNO	88%	Yes
BFS-REDDING	64%	No
BFS-RIPON	51%	No
BFS-RIVERSIDE	82%	Yes
BFS-SANTA BARBARA	44%	No
BFS-SANTA ROSA	13%	No

Source: [EnviroScreen Score](#).

Reporting Narrative for Table 1.10: Facilities in Disadvantaged Communities

Fresno and Riverside are the Department’s forensic laboratories located in “Disadvantaged Communities” (DACs) given by a Cal EnviroScience score greater than 75. However, Laboratory jurisdictions are most likely much greater than that 25%. Each lab’s service area includes surrounding counties, not just the county where the lab is located. The BFS laboratories located in the disadvantaged communities serve them by providing forensic services to local law enforcement agencies that do not have their own forensic services.

Planning Narrative for table 1.10: Facilities in Disadvantaged Communities

To prevent issues that may further affect disadvantaged communities, DOJ must look for ways to maintain sustainable operations 24/7 at the Riverside and Fresno and incorporate Labs and Integrate Climate Adaptation and Resiliency Programs previously outlined into the planning.

New Facilities and Disadvantaged Communities and Urban Heat Islands

Table 1.3: 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)
NO NEW FACILITIES		

Reporting Narrative on Table 1.11: New Facilities and Disadvantaged communities and Urban Heat islands

NO NEW FACILITIES

Planning Narrative on Table 1.11: New Facilities and Disadvantaged communities and Urban Heat islands

NO NEW FACILITIES

Integrating Climate Change into Department Funding Programs

Table 1.12: Integration of Climate Change into Department Planning

Name of Plan	Have you integrated climate?	Is a plan in progress?	If no, or in process, when will it be integrated?
NO PLAN	No	Yes	2027

Reporting Narrative for Table 1.12: Integrating Climate Change into Department Planning Process

As mentioned above, DOJ's Sustainability Unit was established in 2020 with goals of integrating climate change in development planning.

Since then, DOJ has implemented climate change through projects and contracts that will further optimize the energy and water efficiency of the Department's facilities and assist components in achieving DOJ's goal of a net zero emission building portfolio by 2045. DOJ is committed to achieving the sustainability goals. Recent efforts and missions have provided education to staff and stakeholders.

Planning Narrative for table 1.12: Integrating Climate Change into Department Planning Process

The department will keep working to integrate climate change into its planning by reducing greenhouse gas (GHG) emissions in department operations, supporting state efforts to mitigate climate change, and putting the suggested natural adaptation solutions into practice to strengthen lab facility resilience and lower potential risks associated with climate change.

DOJ will also enhance Department-wide awareness and technical capacity by strengthening existing partnerships and seeking out new areas for collaboration, both internal and external, and by developing outreach and training materials that both educate and inspire the Department's workforce to progress and strengthen the sustainability unit and search for funding in order to have the capacity to properly ensure the Department is taking steps to comply with the Governor's "green" executive orders and initiatives.

Community Engagement and Planning Processes

Table 1.13: 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
NO COMMUNITY ENGAGEMENT PROCESS			

Reporting Narrative for Table 1.13: Community Engagement and Planning Processes

NO COMMUNITY ENGAGEMENT PROCESS. THE FORENSIC LABORATORIES ARE NOT OPEN TO THE PUBLIC.

Planning Narrative for Table 1.13: Community Engagement and Planning Processes

NO COMMUNITY ENGAGEMENT PROCESS. THE FORENSIC LABORATORIES ARE NOT OPEN TO THE PUBLIC.

Climate Change Implementation Planning in Funding Programs

Table 1.14: 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 will 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)
NO FUNDING OR GRANT PROGRAMS				

Reporting Narrative for Table 1.14: Climate Change Implementation Planning in Funding Programs

NO GRANT OR OTHER FUNDING PROVIDED

Planning Narrative for Table 1.14: Climate Change Implementation Planning in Funding Programs

NO GRANT OR OTHER FUNDING PROVIDED

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 are made.

Reporting Narrative on Measuring and Tracking Progress

DOJ tracks its GHG emissions through the Climate Registry Information System (CRIS) and energy and water through the Energy Star Portfolio Manager (ESPM). Specific climate data is measured and tracked through spreadsheets and using online tools such as [cal-adapt](#) to monitor progress.

The Sustainability Unit is dedicated to ensuring that DOJ is up to speed with all sustainability related mandates and policies. The unit is in the process of assessing DOJ's sustainability needs to make climate informed decisions to develop and implement plans and projects.

Planning Narrative on Measuring and Tracking Progress

The Sustainability Unit will use adaptive approaches such as referring to the Planning & Investing for a Resilient California Guidebook by identifying and developing priority plans, projects, or policies to help the Department increase sustainability efforts and track progress.

CHAPTER 2 - ZERO-EMISSION VEHICLES

Department Mission and Fleet

The California Department of Justice's mission is to provide high quality, impartial forensic services in the interest of public safety and justice. This requires employees to utilize vehicles in a variety of applications for law enforcement, emergency response, and certain administrative functions.

The top five typical duties that require employees to use vehicles are for law enforcement, court testimony, crime scene response, required training, and administrative duties. The top five environments that the department's vehicles typically operate in are paved roads, off-roads, urban terrain, rural, and ice and snow.

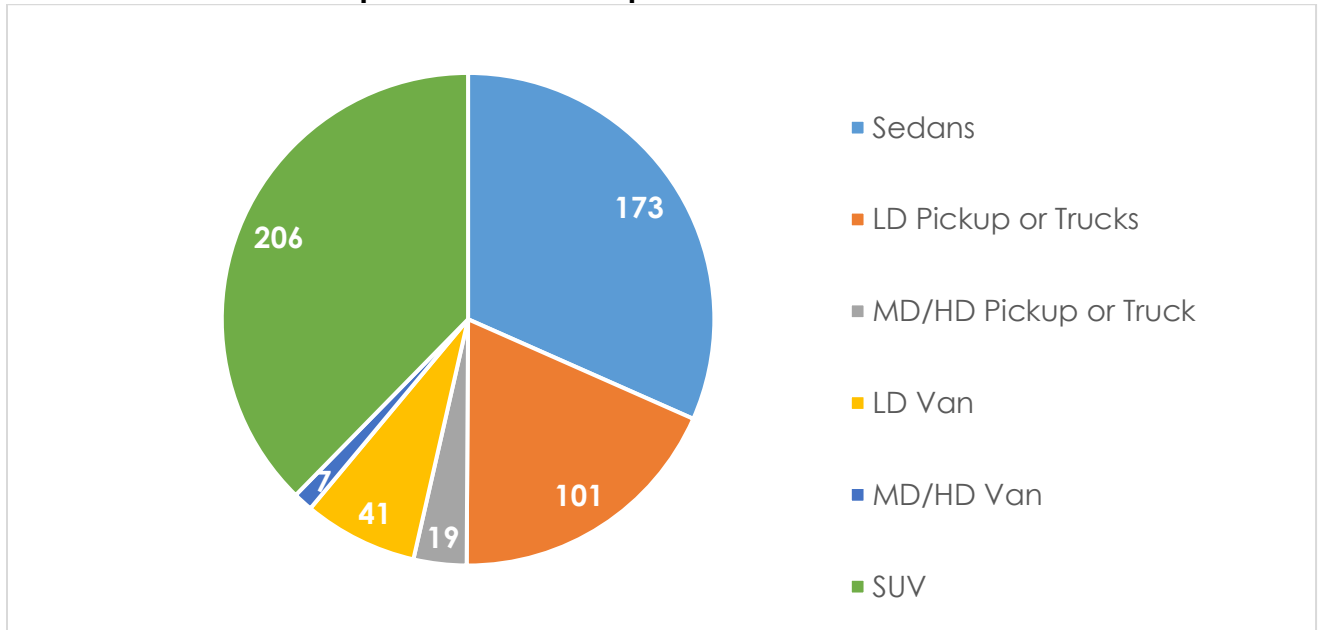
There are multiple common cases in which DOJ employees are on the road. Law Enforcement Agents, Firearms/BGC Auditors, Attorneys, Criminalists, Criminal Analysts, and other staff use a variety of vehicles to travel. These vehicles are pooled and used when needed. The frequency of use for these vehicles is dependent on the demand. DOJ enforcement officers and emergency response teams use unmarked 4-wheel drive pickups and sport utility vehicles (SUVs) to access all areas of the state, participate in patrols, respond to emergency situations, and ensure regulatory compliance with federal and state laws. Additionally, DOJ enforcement officers may use unmarked sedans and vans when conducting criminal investigations in an urban environment with unpredictable terrain.

Because of its mission DOJ's sworn vehicles, have a [EO B-16-12 Public Safety Special Performance Exemption](#) that applies to public safety vehicles with performance requirements, therefore these vehicles are exempt from state agency's annual zero emission vehicle (ZEV) purchasing requirements. Law enforcement vehicles make up to 82.6% of the DOJ fleet while non-sworn vehicles make up to 17.4%. Additionally auditing, mail delivery, court delivery and office use are reformed with non-sworn vehicles.

This chapter describes the department's progress of its ZEV Report and Plan to the Governor and the public.

Composition of Vehicle Fleet

Graph 2.1: 2024 Composition of Vehicle Fleet



From graph 2.1. The current total vehicles in DOJ fleet = 547. This means from 2022 the fleet increased by 46 vehicles. The totals for each vehicle are below:

- The total of Sedans is 173 vehicles.
- The total of SUVs is 206 vehicles.
- The total of LD pick-ups and vans is 142 vehicles.
- The total of MD-HD vans, pick-ups, and trucks is 26 vehicles.

Reporting on Total Fuel Use by Fuel Type

Table 2.1: Total Fuel Purchased in 2023/2024

Year	Fuel Type (Gallons)							
	Diesel	Gasoline	Renewable Diesel	Propane	85% Ethanol	Compressed Natural gas (CNG)	Electricity**	Alternative Fuels*
2023	5,234	688,496	494	0	603	0	9	68
2024	1,964	309,707	128	0	52	0	120	89

* Liquid Natural Gas (LNG). Sources: Wex Report 2023, 2024, which tracks fleet expenses and activities. ** [GreenFleet](#)

Reporting Narrative on Table 2.1: Fuel Type Selections

The department's total fuel purchased increased in 2023, but it had a remarkable reduction in 2024.

DOJ decides which fuel type to use based on the tasks given to the fleet. Between 2023 and 2024, the California Department of Justice experienced a notable shift in its fuel usage patterns, reflecting both operational and policy driven changes. Total fuel consumption decreased by approximately 55%, dropping from 694,895 gallons in 2023 to 311,940 gallons in 2024. This reduction aligns with a broader agency's effort to modernize its fleet. These dynamics suggest a DOJ fleet that is not only becoming more efficient, but also more compliant with statewide sustainability mandates. Operational adjustments, such as expanding use of remote technology and optimizing travel routes-further contributed to the overall decline in fuel dependency. With a breakdown of 45 hybrids in 2021 to 81 hybrids in 2024, the department is working towards a more sustainable future.

Planning Narrative on Table 2.1: Fuel Type Selections

DOJ is moving towards [SAM Section 362Z](#) and [MM 15-07](#) compliance for the purchase of diesel, biodiesel, and renewable Diesel fuels. Due to the unpredictable terrain for each mission task, gas-powered vehicles are a required use due to range mileage reliability. DOJ needs reliable fuel sources for its fleet that electricity and hydrogen fuel cannot provide due to charging stations availability, vehicles' range, and cost. Therefore, the department will keep selecting alternative and cleaner fuel types. The progress also depends on funding availability since effectiveness of growing technology is required for most duties.

In addition to the MM 15-07 that establishes requirements to state agencies to purchase state-contracted renewable diesel fuel, in lieu of conventional diesel and biodiesel fuels, when making bulk purchases of fuel for diesel powered vehicles and/or equipment. The department has recently released the Administrative Bulletin 25-16 (01/2025) that identifies the acceptable and prohibited uses of the WEX Bank Fleet charge card (WEX card) for DOJ owned vehicles including purchase of unleaded gasoline, alternative fuel or diesel fuel.

The department's next steps to outline in the policy which fuel types to use, including cleaner and alternative fuel types.

Rightsizing the Vehicle Fleet

Teleworking, Mission Changes, and Technology Changes

In this section Departments discussed how new telework policies may have an impact on fleet usage.

On-going legislative mandates and changing circumstances frequently alter the Departments' mission and/or day-to-day operations.

With the advent of new fuel types, new driving aids and other advances in technology such as telematics as well as new transportation models, may impact the departments' fleet.

Reporting Narrative for Teleworking, Mission Changes, and Technology Changes

Reporting Narrative on Teleworking

The department's telework policy does not directly address or affect vehicle usage. Following the Fleet's purchasing plan each division is responsible for determining their fleet purchasing on an annual basis. Therefore, there are no next steps and/or timeframes to establishing a fleet purchasing plan that accounts for telework.

The recent installation of telematics on applicable vehicles has recently impacted the department's fleet by providing automated reporting of miles travelled and days used to the Department of General Services. Telematics can be used to determine range limitations to support or disapprove purchasing ZEV vehicles in the future. These recent technologies have not impacted the fleet size or reduced the miles travelled yet.

Reporting Narrative on Mission Changes

NO MISSION CHANGES

NO TECHNOLOGY CHANGES

Telematics

Telematics Implementation Status

In accordance with SAM section 4122, state departments are required to install telematics devices on all state fleet assets. Departments are required to install all telematics devices on light duty vehicles August 1, 2021, and are required to install telematics on all remaining assets by February 1, 2022. Additionally, departments shall develop and issue a telematics policy that is specific to their needs by March 31, 2021.

Reporting Narrative on Telematics Implementation Status

COMPLETED TELEMATICS IMPLEMENTATION

Telematics gathers and stores geographical and on-board diagnostic information.

DOJ implemented telematics by the end of 2021 for non-sworn vehicles. These vehicles are to be available for employees online in the conduct of official state business and are not assigned to one specific individual. DOJ can use the telematics data for non-sworn vehicles to assess the fuel demand and analyze a foreseeable implementation process for hybrid and ZEV vehicles, as has been done in 2022 by the increase of hybrid vehicles.

Sworn pool vehicles that are used by employees that hold peace officer status correspond to 81% of DOJ's fleet. Telematics was just installed on sworn vehicles this spring; that is 521 of 532 required installs. Therefore, DOJ is currently at 97.9% telematics compliance and will accurately capture this metric by calendar year 2026.

Planning Narrative for Telematics Data

COMPLETED TELEMATICS IMPLEMENTATION

Existing Fleet Description

Light Duty Fleet Vehicles

Reporting On Total Miles Traveled

Table 2.2 Total Miles Traveled

Year	2019	2020	2021	2022	2023	2024
Miles Traveled	5,854,037	4,452,657	4,681,606	5,240,325	5,661,841	6,064,370

Source: Fleet Report.

Reporting Narrative on Table 2.2: Total Miles Traveled

Between 2019 and 2024, the department experienced notable fluctuations in miles traveled, reflecting operational shifts and recovery patterns post pandemic. In 2019, the DOJ logged approximately 5.8 million miles. This figure dropped significantly in 2020 to about 4.45 million miles, a reduction of nearly 24%, likely due to pandemic related restrictions and statewide pivot to remote work and limited travel. In 2021, miles traveled began to increase to 4.68 million, signaling a gradual return to field operations and in person activities. The upward trend continued through 2022 and 2023, with miles reaching 5.24 million and 5.66 million, respectively. By 2024, the DOJ had surpassed pre-pandemic travel levels, recording approximately 6.06 million miles traveled. This increase suggests a full resumption of statewide operations, expanded field activities, or increased staffing and service demand. The overall trend from 2020 to 2024 reflects both the impact of the COVID-19 pandemic and a steady return to and expansion of operational capacity.

Reporting On Miles Per Gallon

Table 2.3 Miles per Gallon

Year	2019	2020	2021	2022	2023	2024
MPG	21.25	22.01	22.11	21.98	21.22	19.44

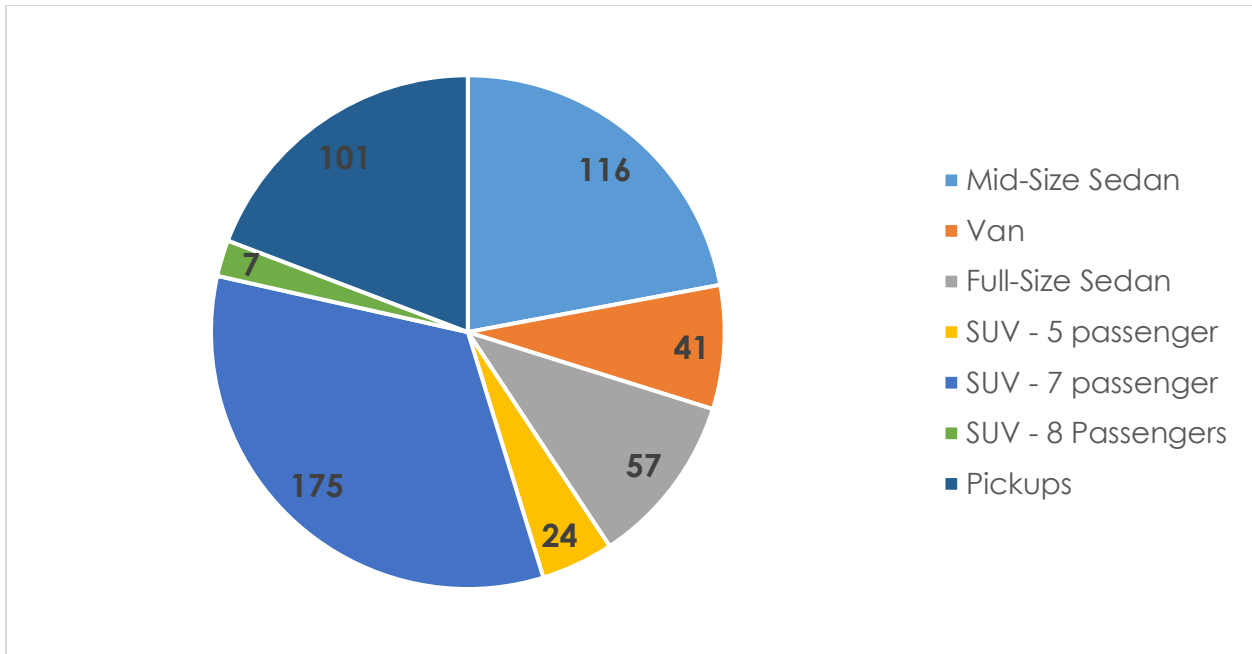
Reporting Narrative on Table 2:3: Miles Per Gallon

The data reported in Table 2.3 is the Miles per Gallon (MPG) for the entire fleet since the department does not gather data separately for LD and MD/HD. From 2019 to 2024, the average miles per gallon (MPG) for DOJ's fleet showed initial improvements followed by a downward trend in later years. In 2019, the fleet averaged 21.25 MPG. This increased slightly in 2020 and 2021 to 22.01 and 22.11 MPG, respectively, likely reflecting a combination of reduced travel, more efficient routing, or temporary sidelining less efficient vehicles during the pandemic. In 2022, the average MPG dipped slightly to 21.98, and a more noticeable decline occurred in 2023, falling to 21.22 MPG. By 2024, the fleet's fuel efficiency had dropped to 19.44 MPG, the lowest point in the six-year period. This decline may be attributed to several operational factors, including increased use of older or specialized vehicles with lower fuel efficiency, heavier duty cycles, or a shift in vehicle mix. The trend underscores the importance of continued investment in fuel-efficient or zero-emission vehicles as part of the department's broader sustainability goals.

The yearly MPG between 2019 to 2024 ranged from 21.25 to 19.44, showing to have a slight decrease in the last two years specifically. Using this telematics data for non-sworn vehicles, DOJ will employ reliable strategies to increase fuel efficiency in miles per gallon and switch the yearly trend.

Composition of Light Duty Vehicle Fleet

Graph 2.2: Composition of Light Duty Vehicle Fleet



DOJ's 2024 composition of Light-Duty Vehicle Fleet includes 116 mid-sized sedans, 57 full-size sedans, 24 SUV 5 passenger vehicles, 175 SUV 7 passenger vehicles, and 7 SUV 8 passenger vehicles, 101 pick-ups, and 41 vans, for a total of 521 LD vehicles, which is 95% of DOJ's total fleet.

Common uses of the department's light duty fleet include, but is not limited to, traveling to sites such as court houses, towing equipment used as evidence in hearings, high speed pursuit of a vehicle, and participating in criminal investigations that involve collecting and transporting evidence throughout the state of California.

A few typical duties that employees use the vehicles for encompass roles performed by attorneys, criminalists, crime analysts, and administrative staff working from regional headquarters, remote offices, and labs. They use a variety of vehicles to travel to meetings, perform routine day to day functions such as site visits, facility assessments, and trips to a local courthouse. These vehicles are pooled and used when needed.

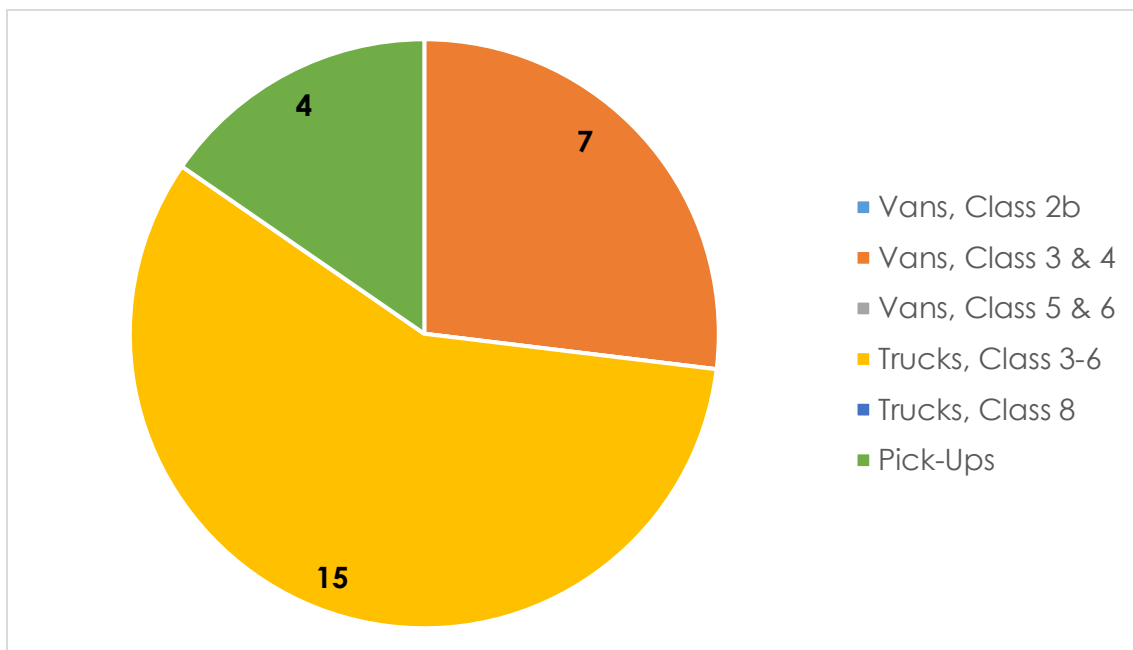
The light duty vehicles operate in multiple environments such as paved roads, off road, urban and rural, ice and snow. DOJ enforcement officers and emergency response teams use unmarked 4wheel drive pickups and sport utility vehicles (SUVs) to access all areas of the state, participate in patrols, respond to emergency situations, and ensure regulatory compliance with federal and state laws. Additionally, DOJ enforcement officers may use unmarked sedans and vans when conducting criminal investigations in an urban environment with unpredictable terrain.

The number of hours per day employees are typically on the road varies on the job function. Telematics was just installed on sworn vehicles this spring. Since the installation is so new, there is not enough data to accurately capture a metric until the 2026 calendar year. The department encourages purchase of Plug-in Hybrid Electric Vehicles (PHEVs), Hybrid Electric Vehicles (HEVs), and Zero-Emission Vehicles (ZEVs) by programs with non-sworn vehicles, yet there is a need for infrastructure at domiciled locations.

Medium and Heavy-Duty Fleet Vehicles

Composition of Medium and Heavy-Duty Vehicle Fleet

Graph 2.3: Composition of Medium and Heavy-Duty Vehicle Fleet.



DOJ's 2024 composition of Medium and Heavy-Duty (MD/HD) Vehicle Fleet includes 4 pick-ups, 7 vans (Class 3&4), and 15 MD/HD trucks (Class 3-6), that are specialty crime scene response or evidence collection vehicles. One pick-up and 3 vans are sworn vehicles and the other 22 MD/HD are non-sworn vehicles.

Incorporating ZEVs into the State Fleet

Pursuant to the Governor's Executive Order [\(EO\) B-16-12](#), state departments are required to increase the number of zero emission vehicles (ZEV) within their state fleet. As departments move towards this initiative, additional measures have been placed on the ZEV vehicle purchasing policy. Departments are advised, as of January 1st, 2020, to purchase vehicles from authorized Original Equipment Manufacturers (OEMs) that have aligned with the California Air Resources Board (CARB).

With these various policies now in place, departments must consider the most effective ways to incorporate ZEVs into their fleet.

Light-Duty ZEV Adoption

A widespread shift to ZEVs is essential for California to meet its Green House Gas (GHG) emission goals. State departments are now required to incorporate and prioritize a larger number of light-duty ZEVs in their vehicle fleets, following the Zero Emission Purchasing Mandate in [SAM 4121](#). Starting in FY 17/18 the percentage of new light duty vehicles that must be ZEVs began increasing by 5% each year, reaching 25% in FY 19/20 and 50% in FY 24/25.

Currently ZEVs are available on statewide commodity contracts in a range of light duty vehicle priority level categories. However, many vehicle classes currently lack a ZEV alternative to purchase due to the [vehicle manufacturer purchasing restrictions](#) in the [State Administrative Manual Section 4121.8](#). Light Duty Vehicles that meet specified mileage and age thresholds and are eligible for replacement, are included in Table 2.4.

Table 2.4 Light Duty Vehicles in Department Fleet Currently Eligible for Replacement

Vehicle Type	Sedans	LD vans	LD Pickups	SUVs, 5 passengers	SUVs, 7 passengers	SUVs, 8 passengers	Total
# of Vehicles eligible for replacement	116	20	38	8	68	7	257

Table 2.5 shows the estimated number of ZEVs that have been or are planned to be added to the department fleet in coming years.

Table 2.5 Plan for Light Duty ZEV Additions to the Department Fleet

ZEV Category	21/22	22/23	23/24	24/25	25/26
Battery Electric Vehicle (BEV)	0	1	1	No Data	No Data
Plug-in Hybrid Vehicle (PHEV)	0	0	1	No Data	No Data
Fuel Cell Vehicle	0	0	0	0	0
Percent of total purchases	0	0	0	0	0
Required ZEV Percentage	35%	40%	45%	50%	50%
Total number of ZEVs in Fleet*	0	1	2	0	0

Source: DOJ's Fleet Acquisition Plan (FAP).

DOJ's current LD fleet has two BEVs and 2 PHEVs. One PHEV was purchased in 2020 and the other one was surveyed in 2023. The BEVs were planned for purchase via the FY 22/23 and the FY 23/24 Fleet Acquisition Plans as stated in the table above. At the time there was no data for 24/25 and the projection for 25/26 is 0 because the fleet team does not have the final FAP from the DLE program to confirm this.

Reporting Narrative for Table 2.5: Light Duty ZEV Additions to the Department Fleet.

The type of LD vehicles that are most beneficial to the department's fleet are the non-sworn vehicles that are not specialty which are required to be sedans.

Of the four "Existing LD fleet composition" types, only the nonsworn sedans with infrastructure dedicated to the vehicle at the domiciled location could be filled by ZEVs. The top three challenges that the department faces to fill the LD ZEV Adoption requirements are due to infrastructure, fast charging and the high cost, and limited funding. The typical use for each LD ZEV type including Battery Electric Vehicles and Plug-in Hybrids vehicles is on site security, local mail delivery, and asset delivery. The department is currently missing LD ZEV vehicle classes for specific state functions such as sedans with trunks. Field auditors and transporters of evidence and long trips that require a trunk for large cases and gear. The classifications of employees that would drive the LD ZEV replacement vehicles would be staff that deliver mail and assets, field auditors, employees that transport evidence and frequently drive to court.

The types of light duty vehicles that are most beneficial to the department's fleet ranges depend on the roles and currently SUVs dominate the profile. Additionally, 81% of the fleet is law enforcement which relies on fleet diversity and fluctuates from year to year.

Planning Narrative for Table 2.5: Light Duty ZEV Adoption

[SAM 4121](#) states a 50% ZEV purchasing requirement but generally 99% of DOJ FAP's are sworn replacements which are exempt from ZEV.

Out of all the eligible vehicles for replacement, there are currently 51 out of 55 vehicles in DOJ's fleet eligible for replacement in vehicle classes for which ZEVs are available on contract. The fleet team expects DGS will require to focus on replacing the oldest vehicles first and is working on an analysis and funding opportunities for which these vehicles could be replaced with ZEVs considering that the total budget required for EV replacement would be \$2,500,000. DOJ will incorporate ZEV strategies when applicable for current home storage vehicles by facilitating energy efficient charging ports when funding becomes available.

The department's plan relies heavily on the infrastructure developments and capacity. DOJ only has a formal LD vehicle ZEV adoption plan for nonsworn vehicles with domiciled infrastructure. Thus, the current plan relies on the infrastructure available at the Sacramento I Street and Broadway offices.

Medium- Heavy-Duty ZEV Adoption

Like the light-duty purchasing policy above, the adoption of MD/HD ZEVs is essential to meet greenhouse gas emission reduction goals. As of July 2020, [SAM section 4121.9](#) requires state agencies to prioritize the purchasing of MD and HD ZEVs vehicles into their fleets. Additionally, beginning December 31st, 2025, departments are required, per [Assembly Bill 739 \(Chau, 2017: State Vehicle Fleet Purchases\)](#), to have 15% of newly purchased vehicles with a gross weight rating of 19,000 pounds or more be ZEVs. This percentage will increase to 30% by December 31st, 2030.

Vehicles over meet specified mileage and age thresholds are eligible for replacement. Currently ZEVs are available on statewide commodity contracts are Class 2B, Class, 3, Class 4, Class 5, Class 6, and Class 8.

Medium and Heavy-Duty Vehicles in Department Fleet currently Eligible for Replacement

Table 2.6 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
# of Vehicles Eligible for Replacement	0	2	0	15	0	17

Table 2.7 Planned Medium/Heavy Duty ZEV Additions to the Department Fleet

Vehicle Type	21/22	22/23	23/24	24/25	25/26
Battery Electric Vehicle (BEV)	0	0	0	0	No Data
Plug-in Hybrid Vehicle (PHEV)	0	0	0	0	No Data
Fuel Cell Vehicle	0	0	0	0	No Data
Percent of total purchases					
Total number of ZEVs in Fleet	0	0	0	0	0

Reporting Narrative for Table 2.7: Medium-Heavy Duty ZEV Adoption

DOJ's Medium-Heavy Duty fleet is typically used by law enforcement agents to perform duties for crime scene response, evidence collection and delivery, and asset delivery. To carry these duties a vehicle can operate off-road, respond to emergencies, and carry heavy equipment. These vehicles are required to have capacity for long distance trips and have a four-wheel drive system, enough torque for hauling, pick-up style for loading, and high clearance. Work using these types of vehicles includes patrolling remote areas, carrying emergency response equipment, evidence, hauling crime scene investigation supplies, and various law enforcement equipment. Therefore, DOJ would need MD/HD ZEVs, BEVs, and PHEVs that can withstand any terrain and an unexpected need on mileage range, including pick-ups, cargo vans, and trucks.

Out of DOJ's 26 MD-HD vehicle fleet, 17 of them are subject to [ZEV First Purchasing Mandate](#); 2 vans (Class 3&4), and 15 MD/HD trucks (Class 3-6), that are specialty crime scene response or evidence collection vehicles. Currently, DOJ does not have MD/HD ZEV vehicles in the fleet and there is no formal plan for MD/HD vehicle ZEV adoption. The challenges to fulfill the MD and HD ZEV Adoption requirements are reliability, infrastructure, and funding. Crime scene and specialty response vehicles carry evidence which can be impacted by long waits for charging. If a sworn vehicle is in pursuit and runs off charge in the middle of the action, it can harm a mission. Trucks are usually used for these missions or pursuits since they are reliable on any terrain in California. There are only a few zero emission trucks that have come available in the market the past 1-1/2 years, which are extremely expensive. Therefore, funding opportunities are DOJ's planning priority.

Planning Narrative for Table 2.7: Medium-Heavy Duty ZEV Adoption

Replacement eligibility is based on mileage and/or age guidelines. Replacement vehicles are subject to budget and programmatic fleet needs. Four MD/HD vehicles are specialty vehicles that are not subject to the ZEV First Purchasing Mandate. Some are used for command center and crime scene response. These vehicles are typically a considerable cost once they are outfitted for their purpose or eligible for replacement. Currently there are no Battery Electric Vehicles (BEV) or Plug-in Hybrid Electric Vehicles (PHEV) available that fulfill the Medium-Heavy Duty requirements for purchase by DOJ.

Additionally, terrain in/around facilities and barriers to charging station installation does not support vehicles that respond to crime scenes, as it is not reliable. The statewide Medium-Heavy Duty Zero Emission vehicle charging, and Hydrogen ZEV fueling infrastructure is still under development. Out of the 20,093 charging/fueling stations in California, 86% are private ([California Energy Commission dashboard](#)).

Take-Home Vehicle Fleet Status

Vehicles are authorized for home storage, per [SAM Section 4109](#). The Department of General Services (DGS) requires that vehicle home storage permits (VHSPs) issued by state agencies shall adhere to policies outlined in section VHSP Requirements and meet the criteria of essential or cost-effective permits as noted in section Criteria for Essential & Cost-Effective Permits. DGS requires the use of criteria that augment those provided in the CCR, Title 2, Section 599.808. Further, agencies shall use the revised STD 377, Vehicle Home Storage Permit/Request Form when requesting vehicle home storage permits.

Storage of state-owned mobile equipment at an employee's residence on a regular basis requires an approved Vehicle Home Storage Request/Permit form, STD. 377, be on file with the employee's department. Annual renewal of STD. 377 is required. See DPA Section 599.808 and OFAM State Fleet Handbook.

[Executive Order B-2-11](#) specifies that state agencies and departments may only issue VHSPs that are essential or cost effective. In continuance of this policy, DGS developed ongoing criteria to assist departments in their future determinations of essential and cost-effective VHSPs.

ANNUAL CERTIFICATION

Beginning on January 2, 2014, and each year thereafter, state agencies shall submit a [DGS OFAM 162 - VHSP Certification Form](#) to DGS that denotes the number of VHSPs issued at that time. DGS may, at any time, request copies of the permits or a list of names and other specific data for the individuals who have been issued permits.

- VHSP annual certifications shall be completed each calendar year.
- VHSP requests (STD 377, Vehicle Home Storage Request/Permit Form) shall be completed for each applicable employee.

The minimum retention schedule for the required documents noted above shall be the current fiscal year and the preceding fiscal year.

The department's Take-Home Vehicle Fleet current status is table 2.8 below.

Table 2.8 Take-Home Vehicle Fleet Status

Vehicle Type	Sedans	LD Pickup or Trucks	MD/HD Pickup or Truck	LD Van	MD/HD Van	SUV
Totals	69	68	0	21	0	149

Reporting Narrative on Table 2.8: Take-Home Vehicle Fleet

DOJ currently has 307 vehicles with a Vehicle Home Storage Permit (VHSP) certified status, which is 56% of DOJ's total fleet.

The nature of undercover work requires agents to swap vehicles throughout the year. Many non-sworn vehicles are used to respond to crime scenes. So, it can be tricky to contain one vehicle for just one purpose since they switch often. An average of 30-60 vehicle transfers per month for the 291 agents. Therefore, vehicles often change during and immediately after the Vehicle Home Storage Permit (VHSP) certification process. Providing fixed data will not be accurate data because of these continuous changes. Additionally, it is challenging for the DOJ's fleet team to follow up about assignments and what type of vehicle an agent is driving if an agent is not assigned to a vehicle by the programs due to staffing limitations.

However, the Division of Law Enforcement employs special agent peace officers who each drive a personally assigned undercover police vehicle with home

storage privileges. Personal assignment and home storage are in force to ensure that special agent personnel can respond to a variety of locations throughout the state during law enforcement emergencies, natural disasters, or unplanned, significant case activity. However, these responses are to the county(s) covered by their regional field office of assignment. Currently, the home storage of vehicles and authorization limitations pertain to the number of commute miles from the employee's home to the place of assignment is covered under Department of Justice Administrative Manual Section 14735 (May 1985). This section requires that in order to retain a home storage permit, employees must reside and store overnight their vehicle within 45 miles of their assigned office.

Planning Narrative on Table 2.8: Take-Home Vehicle Fleet

the Take Home Vehicle Program data to ensure that the right type of vehicle is assigned is determined by each Division. DGS only requires one VHSP per year per vehicle, therefore, a VHSP is not required every time an agent switches a vehicle. Additionally, an agent is not assigned the same vehicle throughout their career with DOJ. Vehicles often change during and immediately after the VHSP certification process as needed.

Planning Narrative for Integrating ZEVs into Take-Home Vehicle Fleet

There is no plan for integrating ZEVs into the Take-Home Vehicle Fleet. As mentioned in previous sections, planning requires proper infrastructure, technology, and budget. The needs of the DOJ's fleet require fast charging and reliable vehicles that can manage unpredictable terrain. Additionally, the department cannot rely Take-Home Vehicle Fleet assignments on the agents at home charging availability.

Planning Narrative on Integrating the Take-Home Vehicle Program with Telework

Vehicles with home storage permits (VHSPs) are utilized for investigative and undercover duties and are assigned by business needs. All vehicles can be swapped throughout the year whether assigned or pool. It would be difficult to give a count of vehicle classes that are taken home without including fluctuating pool vehicles. This makes planning for integrating a take home vehicle program with telework very challenging since vehicles are moved on a regular basis depending on the need and therefore never calculated.

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

As technology develops and the department advances incorporating reliable and available ZEVs and these vehicles into the Take-Home Vehicle Program, the strategy will be to work with implementing a system to track the mileage usage as well as the emission reduction patterns.

ZEV Public Safety Exemption

Management Memo 16-07 changed the requirements for Public Safety Exemptions. EO B-16-12 specifies that only public safety vehicles with special performance requirements are exempted from a state department's annual zero emission vehicle (ZEV) purchasing requirements. Governor Brown's 2016 ZEV Action Plan requires the Department of General Services (DGS) to evaluate and provide further guidance to agencies as to the appropriate circumstances under which the public safety exemption should be invoked to ensure that ZEVs are integrated into public safety mobile assets wherever feasible.

Statute: Accordingly, when evaluating the invocation of this exemption for a specific light-duty vehicle within its fleet, a state agency must be able to demonstrate that:

1. The vehicle is an authorized emergency vehicle pursuant to California Vehicle Code §165; and,
2. The vehicle, pursuant to California Vehicle Code §21055, may be:
 - a. Driven in response to an emergency call or while engaged in rescue operations, or
 - b. Driven in immediate pursuit of an actual or suspected violator of the law,
 - c. Driven in response to, but not returning from, a fire alarm, or
 - d. Operated from one place to another as rendered desirable or necessary by reason of an emergency call and operated to the scene of the emergency, or
 - e. Operated from one fire station to another or to some other location by reason of the emergency call: and,
3. The vehicle must be able to reach the anticipated emergency location within 30 minutes to no more than 1 hour.
4. Where emergency response is not the primary purpose of a vehicle, a state agency must be able to demonstrate that the specific vehicle may be used as part of an established mutual aid agreement that would necessitate an emergency response as outlined above.

Agencies shall submit a public safety special performance exemption justification either through the EO B-16-12 Public Safety Special Performance Exemption Request form located on the DGS website or include the agency justification in the Fleet Acquisition Plan Spreadsheet. Agencies must evaluate their entire light-duty fleet for every opportunity to incorporate ZEVs over traditional vehicles.

Reporting Narrative for ZEV Public Safety Exemption

The status of the department's ZEV Public Safety Special Performance (PSSP) Exemption is current which applies to all 443 sworn vehicles of the total DOJ fleet. Purchases for public safety vehicles are requested at the discretion of Division leadership.

Sworn vehicles are authorized emergency vehicles pursuant to California Vehicle Code section 165. They are equipped with code three light bars, radios, computers, spotlights, a tow package, and various other electronic equipment that does not come standard on a normally outfitted vehicle. These vehicles are used often and, in some cases, in off-road environments. They must have the ability to safely and quickly reach a reported crime in progress, investigation scenario, and assist during public safety requests.

DOJ law enforcement and emergency response fleet is comprised of four-wheel drive pickups, SUVs, and sedans used for special cases such as undercover operations or emergency use. There are a small number of hybrids in this fleet operated by law enforcement officers. However, these hybrids do not offer off-road capability nor towing ability, so these hybrids have minimal use.

At this moment, sworn officers with legal authority for law enforcement will be driving ZEV as a test. Since the battery takes time to charge, law enforcement agents would need a ZEV for normal shifts and another one for after-hours emergencies, which makes ZEVs not reliable and feasible yet. Regarding agent safety, vehicles used for pursuit reasons are mainly trucks, which makes managing different terrain more reliable. ZEV/hybrid vehicles at this rate are easily identifiable if a whole fleet is using them.

Planning Narrative for ZEV Public Safety Exemption

To align with the evolving state of Electric Vehicle (EV) mandates, the Sustainability Unit recommends EVs as a top priority for all future DOJ vehicle purchases. Where EVs are not feasible, PHEVs and HEVs are recommended. Internal combustion-only vehicles should not be considered for purchase unless alternatives have been justified as being not feasible and an exemption is

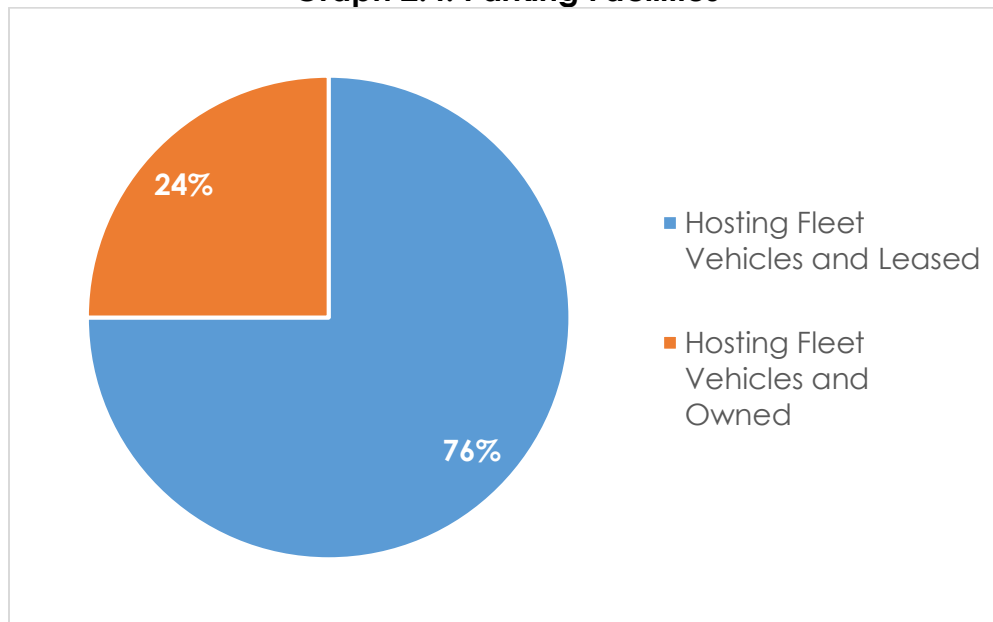
warranted. Exemptions for purchasing ZEVs, PHEVs, HEVs would be any one or more of the following: Public Safety Vehicle (also known as authorized emergency vehicle defined in Vehicle Code §165), requires 4x4 capability, and/or requires a certain towing weight ability not available in EVs on contract.

The [EO B-16-12 Public Safety Special Performance Exemption -State Administrative Manual Section 4121.4](#) apply to undercover (sworn) vehicles only. Therefore, concerning lighter work not requiring hauling or carrying heavy equipment, DOJ has purchased hybrids and is in process of planning to purchase ZEVs once the charging infrastructure is in place. The Sustainability Unit also recommends EVSE infrastructure to be a top priority.

DOJ's Sustainability Unit understands that there are exceptions for public safety vehicles, yet there will likely come a time soon in which options for alternative fuel and zero emission vehicles will provide reliability and security for public safety vehicles and those who drive them. Nevertheless, currently alternate-fuel vehicle use is not feasible for every application. It should be ensured that every vehicle purchase is vetted for compliance. Alternate-fuel vehicles have come a long way regarding range, capability, and environmental and economic benefits, but battery charger capacity and terrain (usually for truck or SUV potential) must expand to meet the programmatic fleet needs of DOJ's fleet.

Department's Parking Facilities

Graph 2.4: Parking Facilities



Reporting Narrative on Graph 2.4: Parking Facilities

DOJ's facilities mainly consist of offices and forensic labs. Regarding facilities that host fleet vehicles, leased facilities represent 76%, whereas owned facilities represent 24%. The offices and labs are generally mixed use and house attorneys, criminalists, enforcement officers, and other various administrative staff.

Parking lots and parking garages can be multi-level structures or underground parking garages. Larger main offices have dedicated secured parking lots for DOJ fleets and open mixed parking for employees and visitors. For instance, in the I Street garage, the DGS-leased facility, the parking areas are mixed and not assigned, so parking operated on a first-come first-serve basis. The parking lot at smaller facilities is generally mixed across all parking types. There are few visitors, as labs are not open to the public. Generally, most visitors are staff and law enforcement from other public agencies. DOJ currently owns eight labs, all which host fleet vehicles.

Reporting on Status of EVSE Projects

Five of the Department's BFS labs have EV ARC Beam chargers, which were provided by DGS OS-Clean Transportation Unit at no cost to DOJ. These solar-powered chargers have been reported to charge slowly and malfunction often, which are currently being used by employee-owned vehicles. DOJ must consider access for DOJ vehicles and ensure the chargers are in locked gated areas. This infrastructure is reported in Table 2.9 below as the Existing L1 Charging Ports. For the leased facilities, the DOJ facilities team oversees the lease agreements to meet the goal of providing at least 5% of parking space with EVSE charging availability.

Per [MM No. 16-07- Zero-Emission Vehicle Purchasing and Electric Vehicle Service Equipment Infrastructure Requirements](#), DGS is to assist state agencies in the development and implementation of each agency's workplace charging plan that will result in EV charging availability at a minimum of 5% of workplace parking spaces at state-owned facilities.

Table 2.9 : High Priority EVSE Projects

Facility Name	Total Parking Spaces	Existing L1 Charging Ports (2024)	Existing L2 Charging Ports (2024)	Existing DCFC L3 Charging Ports (2024)	Total Charging Ports (2024)	EV Charging Ports Needed by 2026*
BFS-EUREKA	22	0	0	0	0	1
BFS-FREEDOM	23	0	0	0	0	1
BFS-RIVERSIDE	65	2	0	0	2	0
BFS-SANTA BARBARA	15	1**	0	0	1	1
BFS-SANTA ROSA	24	1**	0	0	1	1
BFS-REDDING	32	1**	0	0	1	0
BFS-RIPON	55	1**	0	0	1	0
BFS-FRESNO	45	1**	0	0	1	0
AG-Sacramento	589	54	5	0	59	0
CJIS/Firearms/ BFS-Sacramento	1080	50	0	0	50	0
AG-Fresno	198	30	3	0	33	0
AG-Los Angeles	375	24		0	24	0
AG-Oakland	400	24	19	0	43	0
AG-San Francisco	66	62	2	0	64	0
DMFEA-San Diego	79	0	5	0	5	0
DLE-San Diego	90	0	0	0	0	0
DMFEA-Orange	31	4	0	0	4	0
DLE/BFS-RICHMOND 1	219	0	2	0	2	0
DLE/BFS-RICHMOND 2	75	0	0	0	0	0
DMFEA-Burbank	22	0	2	0	2	2
BFS-CHICO	5	0	0	0	0	0
DLE/CJIS-Commerce1	203	2	0	0	2	0

Facility Name	Total Parking Spaces	Existing L1 Charging Ports (2024)	Existing L2 Charging Ports (2024)	Existing DCFC L3 Charging Ports (2024)	Total Charging Ports (2024)	EV Charging Ports Needed by 2026*
DLE-Commerce 2	60	2	0	0	2	0
DLE/DMFEA-Dublin	67	0	2	0	2	1
DLE-Fresno	106	0	0	0	0	1
CJIS-Sacramento	485	0	4	0	4	0
DMFEA - Redding	29	0	0	0	0	0
DMFEA/DLE-Riverside	96	0	0	0	0	1
DLE-Sacramento	116	0	0	0	0	0
DMFEA-Sacramento 1	98	0	0	0	0	4
DMFEA-Sacramento 2	30	0	0	0	0	0
AG-San Diego	14	0	5	0	5	0
DMFEA-West Covina	21	0	0	0	0	2
Total	4,835	259	49	0	308	15

*Source: FY 2023-24 and FY 2024-25 OS- 1 forms. ** Solar BTC EV ARC chargers.

The needs assessment is based on the nature of the department’s fleet operations, as well as the length of stay for state visitors and employees which should match the department’s OS-1 form reviewed and approved by DGS’ Office of Sustainability’s Clean Transportation Unit.

Further, the needs assessment reviews the estimates of future ZEV fleet purchases and includes a count of visitor and workplace parking spaces to calculate the number of L1, L2 and Level 3 chargers over the next three years to adequately serve fleet vehicles and achieve the 5% goal established in the ZEV Action Plan.

EV Charging Site Assessments

Site assessments are performed to establish the cost and feasibility of installing needed Electric vehicle supply equipment (EVSE) infrastructure. Currently DOJ does not have any projects or expected future projects on existing on-site charging stations or future on-site charging stations.

Reporting on 2024 Facility Site and Infrastructure Assessments

Site assessments have been conducted at the eight DOJ's BFS-owned labs to establish the cost and feasibility of installing needed new EV charging infrastructure. Table 2.10 lists the facilities that were assessed in 2022 by Centrica Business Solutions, a DGS approved that had a master contract with PG&E. They provided an EVSE assessments and a bid to establish workflow potential in additional chargers L2 chargers for each of the BFS labs considering that Level 1 (L1) EV chargers are the slowest to power up a vehicle while Level 3 (L3) EV chargers are the fastest of the three which have a power output from 60 kW to 360 kW and are usually expensive.

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
BFS-EUREKA	0	1	0	Centrica Business Solutions
BFS-REDDING	0	1	0	Centrica Business Solutions
BFS-SANTA ROSA	0	1	0	Centrica Business Solutions
BFS-RIPON	0	1	0	Centrica Business Solutions
BFS-RIVERSIDE	0	1	0	Centrica Business Solutions

Facility Name	L1 EVSE Project Assessments	L2 EVSE Project Assessments	L3 EVSE Project Assessments	Entity that Conducted the Site Assessment
BFS-FREEDOM	0	1	0	Centrica Business Solutions
BFS-FRESNO	0	1	0	Centrica Business Solutions
BFS-SANTA BARBARA	0	1	0	Centrica Business Solutions
Total	0	8	0	Centrica Business Solutions

DOJ is not currently involved in active projects with DGS to have any more EVSE assessments take place. This is something the Department looks forward to implementing, which will be dependent upon the future fleet needs at each location.

Planning Narrative on Table 2.10: EVSE Construction Plan

Charging infrastructure available to DOJ vehicles is predominantly limited to Level 1 chargers, which are typically not appropriate to support a BEV that is used to conduct DOJ business, due to the length of time to charge a vehicle’s battery. Currently, DOJ is planning on incorporating level 2 chargers into lease renewals and owned facilities per [SAM section 4121.6](#).

Since a significant number of DOJ's fleet vehicles are used to perform duties that require them to go off-road, respond to emergencies, and carry heavy equipment, planning for EVSE charging infrastructure imply that cost benefit should not only be worth investing but also reliable when any unexpected duty is required. Therefore, ZEVs would be a viable option for DOJ law enforcement when the technology can provide EV vehicles with this capacity, DOJ will plan to implement them in their fleet and the required charging infrastructure. Data will be utilized to ensure that charging infrastructure and charging availability, average driving range, and travel needs are all met.

Due to these variable factors, an EV Charging policy is not in development by the Assets Management Unit (AMU) currently. Upon formulation of this policy, AMU will need to collaborate with DOJ Facilities, as the charging infrastructure is managed there. When planning for chargers, DOJ must consider the geographic area and terrain as this will affect the reliability of the right type of ZEV. There are not many ZEV vehicles in the fleet to assign specific types, but when the technology provides adequate battery charge reliability, DOJ will devise a plan simultaneously.

On-going EVSE Charging Operations and Maintenance

Public EV Charging Policies

State agencies may allow state employees to charge their EVs while working at a state-owned or leased building or facility. If workplace charging is provided, then an EV charging policy must be in place. MM16-07 also contains the **EV Charging Reimbursement Authority section** which states: *"When an agency elects not to charge a monetary fee for use of the EV charging station, such an action may be considered a public benefit and not a gift of public funds that is prohibited by Section 6 of Article XVI of the California Constitution."*

Although an agency is not required to assess a fee to state employees for EV charging, it may do so. It is necessary to notify anyone who would use an EV charger at any of your department's parking facilities of your department's 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

Per MM No. 16-07- Zero-Emission Vehicle Purchasing and Electric Vehicle Service Equipment Infrastructure Requirements, DGS is to assist state agencies in the development and implementation of each agency's workplace charging plan

that will result in EV charging availability *at a minimum of 5% of workplace parking spaces* at state-owned facilities. Per the **EV Charging Reimbursement Authority listed in [MM 16-07](#)**, departments may choose to not assess a fee for employee workplace charging. However, it is still necessary to have a policy in place to assure that employees may charge their EVs at your department's parking facilities.

Reporting Narrative on Employee EV Charging Policies

NO EMPLOYEE EV CHARGING POLICY IN PLACE

Planning Narrative on Employee EV Charging Policies

Although DOJ does not have an Employee EV Charging Policy in place, the department has a quick guide for electric vehicles (Updated in January 2022) that outlines EV Stations located at DOJ facilities. Additionally, it details contact information regarding use of an EV Arc, electric/hybrid vehicles, fleet acquisition/purchasing, and parking.

At the DGS-leased facilities, the department follows the guidelines that DGS outlines for EV charging use and payments in their parking policy (Office of Fleet and Asset Management - Parking Administration Unit, June 2023). In this policy, DGS offers incentives for state employees who own or use a ZEV such as discounted monthly parking rate, priority access when there is a waiting list, first come, first serve access to chargers, and free charging in the Level 1 AC charging spaces. Additionally, there is an idle time limit per charger type; all these in an effort to further reduce greenhouse gases emissions, build economic growth, and improve well-being and optimize the EV charging infrastructure use. Additional information is provided to DOJ users to learn where to find and how to use EV charging stations in the [Electric Vehicle Charging Guide](#).

The next steps will be to develop an Employee Charging Policy as more EVSE infrastructure becomes available for both the owned and leased facilities.

Fleet EV Charging Policies

To ensure optimal deployment of your department's ZEV fleet, it is necessary for the departments to have clear policies regarding ZEV use and recharging. Software systems are available to work with your department's telematics to help your department deploy its ZEVs effectively.

Reporting Narrative for Fleet EV Charging

NO FLEET EV CHARGING POLICY.

Planning Narrative for Fleet EV Charging

Because DOJ is not currently deploying an EV fleet, DOJ does not currently have a Fleet EV Charging Policy in place but plans to have one when there are more charging infrastructures built. However, for DOJ to deploy its ZEVs effectively there is a safety issue regarding using telematics or software systems for tracking.

Hydrogen Fueling Infrastructure

Planning Narrative for Hydrogen Fueling Infrastructure

Hydrogen vehicles, also known as Fuel Cell Electric Vehicles (FCEV) are a type of ZEV running on compressed hydrogen fed into a fuel cell “stack.” The fuel cell stack produces electricity to power an electric motor of the vehicle. These vehicles tend to have a longer range (between 300 and 400 miles) than most of the electric cars available to the state and have fast refueling times (3 to 5 minutes). FCEVs are a good alternative to electric vehicles, although the price is much higher.

Currently, the department does not have plans to utilize hydrogen as a transportation fuel or install hydrogen fueling infrastructure but will consider it if FCEVs are added to DOJ's FAP in the future.

The challenge in achieving and utilizing hydrogen as a transportation fuel is to find contracted available vehicle model options suited for business needs. Additionally, fuel locations and available supply are scarce. Data from the California Hydrogen Fuel Cell Partnership provides a list of 97 the hydrogen refueling stations.

CHAPTER 3 – ENERGY

Department Mission and Building Infrastructure

Each state agency is responsible for monitoring energy use and reporting baseline and annual energy use for compliance with the energy use reduction targets. Energy use shall be measured at facilities that have meters and sub-meters. This chapter of the Roadmap collects and analyzes DOJ's energy information.

The DOJ has a diverse portfolio of buildings from office-type structures to vast forensic lab campuses. Its operations include representing the people of California in civil and criminal matters before trial, appellate, and supreme courts.

The Department's mission is for all DOJ labs to remain operational while providing essential services. It is critical that a laboratory's heating and cooling system operates permanently, correctly, and efficiently to ensure adequate environmental conditions to run lab equipment and manage, preserve, maintain, and storage evidence and samples. These buildings mainly function on purchased electricity, natural gas, and water. More than half the labs purchase electricity through PG&E, which uses renewable sources of electricity.

DOJ operates in a total of 33 facilities statewide, totaling 1,772,476 million square feet. The largest of these facilities are owned and managed by DGS and other private entities. Please refer to the DGS' roadmap report for any energy related metric at the DGS-owned buildings that DOJ currently leases.

DOJ owns 24% of these buildings, overseeing 8 laboratories spread all across the state. This chapter focuses on reporting energy metrics for the DOJ-owned buildings for which the facilities and the Sustainability Unit teams can formulate and implement energy saving projects.

Reporting Narrative for Department Mission and Building Infrastructure:

DOJ's regional crime laboratories are under the Bureau of Forensic Services (BFS), a comprehensive state-of-the-art, ANSI National Accreditation Board-accredited forensic program servicing 46 of the state's 58 counties for state and local law enforcement, district attorneys, and the courts.

These BFS laboratories perform forensic examinations across a broad range of physical evidence, i.e. DNA, Biology, Firearms, Trace, Latent Prints, Toxicology, Alcohol, Controlled Substances and Field Investigations. All labs are operational

24-7/ 365 days to maintain the integrity of evidence through proper cataloguing, handling, analysis, and storage of evidence. The labs are required to stay open and operational during emergencies or crisis for intake and analysis.

Total Purchased Energy

Table 3.1 is a breakdown of 2023 and 2024 total purchased energy for all eight DOJ-owned lab facilities.

Table 3.1: Total Purchased Energy 2023 and 2024

Purchased Energy	2003 Baseline Quantity	Unit	2023 Quantity	2024 Quantity	% Qty. Change 2003-24
Electricity	5,587,785	kWh	5,174,951	5,354,988	3%
Less EV Charging		kWh			
Natural Gas	168,438	therms	116,292.10	100,241	-14%
Propane		gallons			
Fuel Oil		gallons			
Steam		pounds			
Chilled H2O		kBtu			
Total Calculated Site Energy Use	29,102,959	kBtu Site	29,286,144	28,295,297	-4%*

* Please note that three more buildings were built after 2003, the baseline year.

Department Energy Use

This section of the Roadmap starts with analysis of DOJ's facilities, and covers energy use, and practices surrounding energy efficiency.

Reporting High Energy Use Facilities

Table 3.2 shows the Department's highest energy use buildings at all DOJ owned facilities (eight Forensic laboratories were listed).

Table 3.2: Facilities with Largest 2024 Energy Consumption

	Facility Name	Floor Area (ft ²)	Site Energy (kBTU)	Source Energy (kBTU)	Source EUI (kBTU/ft ² -yr)
OWNED	BFS-RIVERSIDE	39,000	6,854,746	1,442,500	370
	BFS-FRESNO	36,007	6,110,001	14,127,590	392
	BFS-RIPON	32,000	5,294,875	12,095,780	378
	BFS-SANTA ROSA	15,645	3,240,498	5,593,338	392
	BFS-SANTA BARBARA	13,800	2,757,050	5,392,416	391
	BFS-REDDING	16,799	2,488,702	6,925,586	413
	BFS-FREEDOM	11,086	986,367	2,020,630	168
	BFS-EUREKA	9,771	563,060	1,104,853	113
LEASED					
	Total for Facilities in This Table	174,108	28,295,300	61,684,693	2,583
	Total for All Department Facilities	174,108	28,295,300	61,684,693	2,583
	Percent of Totals	100%	100%	100%	100%

Energy Efficiency Solutions for Largest Energy Using Buildings

This planning outline evaluates the energy efficiency work needed to reduce total energy use at DOJ's highest energy use buildings listed in Table 3.2.

For the DOJ-owned buildings, the department is currently in the process of upgrading lighting and fixtures to LED, replacing old HVAC systems, and installing solar panels to help carry the energy load of sites as it is outlined in the Planning Outline PO3a below. DOJ has also joined the [ESPC Campaign | Department of Energy](#). This is the DOE's strategy to provide technical assistance and tools for public sector facility owners to implement their Energy Savings Performance Contracting (ESPC) projects and achieve substantial financial, energy, and environmental savings effectively and successfully.

Energy audits of the eight labs have already been conducted as of 2022 by PG&E's sub-contractor, Centrica. DOJ's 5-year Infrastructure Plan includes a scope of work for energy efficiency upgrades that has been finalized and will include the

following listed below in Planning Outline PO3a. This extensive project is estimated to save DOJ a total of 1,013,489 kWh annually. This project is part of PG&E's Energy Efficiency Bundling Opportunity in collaboration with DGS and is under a master contract. DOJ is working with GS \$Mart on securing a loan to fund the project. The proposed project completion date is August 2026.

Planning Outline PO3a: Planning for Facilities with Largest Energy Use

Facility Name	Proposed Energy Efficiency Solutions
BFS-RIVERSIDE	<ul style="list-style-type: none"> • HVAC Upgrades (which include installing one 1.5-ton ductless split system.) • Hot Water Heater (100 Gal, 250,000 BTUH). Install Rooftop Solar. • LED Lighting and Controls Retrofit. Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps. • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-FRESNO	<ul style="list-style-type: none"> • HVAC Upgrades (which include installing a 6-ton condenser and a one 1.5-ton ductless split system). • Hot Water Heater (100 Gal, 250,000 BTUH). Install Rooftop Solar. • LED Lighting and Controls Retrofit. • New Building Management System and Energy Management System (BMS/EMS system). Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps). • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-RIPON	<ul style="list-style-type: none"> • HVAC Upgrades (which include installing one 2.5-ton ductless split system). • Install Rooftop Solar. • LED Lighting. and Controls Retrofit. Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps). • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-REDDING	<ul style="list-style-type: none"> • HVAC Upgrades (which include installing three condensers totaling 19.5 tons).

Facility Name	Proposed Energy Efficiency Solutions
	<ul style="list-style-type: none"> • Install Rooftop Solar. • LED Lighting. and Controls Retrofit. Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps. • Replace electric resistance DHW heaters with more efficient heat pump water heater.
BFS-SANTA ROSA	<ul style="list-style-type: none"> • Install Rooftop Solar. • LED Lighting. and Controls Retrofit. Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps. • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-SANTA	<ul style="list-style-type: none"> • Install Rooftop Solar. • LED Lighting and Controls Retrofit. Other upgrades to be considered: • Replace natural gas boilers with air-to-water heat pumps. • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-FREEDOM	<ul style="list-style-type: none"> • Install Rooftop Solar. • LED Lighting and Controls Retrofit. Other upgrades to be considered: • Replace natural gas rooftop units with heat pump units. • Replace natural gas domestic hot water heaters with electrified heat pump water heater.
BFS-EUREKA	<ul style="list-style-type: none"> • Install Rooftop Solar. • LED Lighting. and Controls Retrofit. Other upgrades to be considered: • Replace natural gas domestic hot water heaters with electrified heat pump water heater.

Planning Narrative for PO3a: Building Energy Efficiency

The Department's 5-year Infrastructure Plan is to have upgraded all interior and exterior lighting of the eight DOJ-owned laboratories to LED, install solar panels, and upgrade the old HVAC systems at the locations listed above in Planning Outline PO3a.

The Department has faced various other challenges while working toward meeting the Governor's goals. Challenges include securing funding and creating a contract with a qualified Energy Services Company as part of California Government Code section 4217. DOJ's endeavor on installing solar for all DOJ-owned facilities was initially held off due to low return on investment (ROI) from the project. This was remedied by adding more to the project scope such as upgrading the building Management System and Energy Management System (BMS/EMS system) at the Fresno lab, which is estimated to save the DOJ 97,404 kWh annually. The Department's plan is consistent with California State Sustainability goals to reduce energy usage by 20%.

Zero Net Energy (ZNE)

Zero Net Energy (ZNE) is a term used to describe an energy efficient building or facility that consumes no more energy than it produces from renewable on-site or off site sources in a one-year span. State policies set forth the following milestones for state zero net energy buildings:

- 2017 – 100% of new construction, major renovations and build-to-suit leases beginning design after 10/23/2017 to be ZNE
- 2025 – 50% of total existing building area will be ZNE

Reporting on Existing Building ZNE

Table 3.3 provides a status of DOJ's progress in meeting these ZNE requirements.

Table 3.3 Zero Net Energy Buildings

Status of ZNE Buildings	Number of Buildings	Floor Area (ft²)	% of Building Area
Buildings Completed and Verified	0	0	0%
Building in Design or Under Construction	0	0	0%
Building Proposed for Before 2025 (but not in design or construction)	0	0	0%
Totals for ZNE Buildings by 2025	0	0	0%
Totals for All Department Buildings by 2025	0	0	0%
% ZNE by 2025	0%	0%	0%

When the generation is measured and equal to the amount that particular facility uses within one year, it is considered a ZNE facility. Renewable sources and ZNE definitions are detailed in DGS's ZNE guidelines.

In order to meet ZNE goals, the department is currently working with PG&E to look into installing solar panels at select lab locations listed in Planning Outline PO3a. The Department is working with GS \$Mart on securing a loan to fund the project. The proposed project completion date is August 2026. The Department continues to be mindful of the Governor's sustainability goals and is working towards making the 50% of the total existing building area be ZNE.

Planning Narrative of Table 3.3: Zero Net Energy Buildings

DOJ does not have any ZNE facilities. However, the Department is working towards having all its eight owned lab facilities be ZNE ready, meaning that the labs' source EUI (Energy Use Intensity) will meet the energy efficiency ZNE threshold. Next step is to generate their energy use from onsite or long term off-site renewable sources, such as solar power for those laboratories.

New Construction Exceeds Title 24 by 15%

All new state buildings and major renovations beginning design after July 1, 2012, must exceed the current California Code of Regulations (CCR) Title 24, energy requirements by 15% or more.

Table 3.4 provides the status of the Department's new building construction.

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

New Buildings Exceeding Title 24 by 15%	Number of Buildings	Floor Area (ft²)
Completed Since July 2012	NO NEW CONSTRUCTION	NO NEW CONSTRUCTION
Under Design or Construction	NO NEW CONSTRUCTION	NO NEW CONSTRUCTION
Proposed Before 2025	NO NEW CONSTRUCTION	NO NEW CONSTRUCTION

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

NO NEW CONSTRUCTION

DOJ has had no new construction or major renovations recently. When DOJ requires new construction or renovations, the Department will work closely with and rely on DGS to implement new construction requirements. The Department will ensure when working with contractors that Title 24 requirements are met by at least 15%.

Existing Buildings Energy Efficiency

Energy efficiency is central to building sustainability efforts, enabling departments to use less energy (including fossil fuels) to power and operate their buildings. According to State Administrative Manual (SAM) Chapter 1815.3, existing state-owned buildings shall enter their energy consumption data into the ENERGY STAR Portfolio Manager (ESPM) annually by March 1st as part of the annual benchmarking program and provide access to this data base to the DGS Office of Sustainability

Reporting on Energy Efficiency for Existing Buildings

Since 2020, DOJ's Sustainability staff enters the energy consumption data for all eight owned buildings into the ESPM platform annually. The data includes the DOJ's energy use by DOJ-owned facilities. Total energy use is a good measurement but sometimes can be misleading if buildings with large square footage are added to the portfolio. Therefore, Energy Use Intensity (EUI) can be a more accurate measurement of energy efficiency and building performance since it is calculated by dividing the energy use of a building by its square footage.

Table 3.5 looks at overall energy use trends at the eight DOJ-owned lab facilities over a series of years using EUI. Moreover, source energy use also includes the amount of energy it takes to produce and deliver the energy to the site. Please note the baseline year is 2003 and three more buildings were built after that year.

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

Year	Floor Area (ft ²)	Total Source kBTU Consumption	Department Average EUI (Source kBtu /square foot)
Baseline Year 2003	141,664	57,462,838	406
2013	174,108	79,653,792	459
2014	174,108	75,306,831	434
2015	174,108	75,924,189	437
2016	174,108	84,223,458	485
2017	174,108	78,969,723	455
2018	174,108	89,011,294	513
2019	174,108	88,605,715	510
2020	174,108	77,331,047	445
2021	174,108	88,537,953	510
2022	174,108	73,052,134	421
2023	174,108	61,712,631	330
2024	174,108	61,684,693	323
% Change 2003-2024	23%	7%	-20%

Reporting Narrative for Table 3.5: Department-Wide Energy Trends

The Department's energy trends show a source energy use intensity increase of 7% from 2003-2024.

This increase will be investigated. However, the Department's average EUI showed a decrease of 20%. This is likely due in part by replacing old equipment with newer, more energy efficient models such as the boilers and chillers for the labs. DOJ has more energy saving projects on the horizon, including working towards replacing all fluorescent light fixtures with LED as well as updating any high-energy consumption BMS systems to newer models that use even less energy. The estimated completion time for these retrofits is August 2026.

Energy Savings Projects

Table 3.6 summarizes the DOJ's completed energy saving from surveys conducted in 2023 and 2024 at the eight DOJ-owned lab facilities.

Table 3.6: Summary of Energy Savings Projects 2023-2024

Year Funded	Estimated Energy Savings (kBTU/yr.)	Floor Area Retrofit (sq. ft.)	Percent of Department Floor Area
2023	0	0	0%
2024	1,013,489	174,108	100%
Total	1,013,489	174,108	100%

Reporting Narrative for Table 3.6 Energy Savings Projects 2022-2024

The energy surveys conducted on Department-owned buildings in the last five years include surveys conducted in 2022 on LED lighting upgrades and energy equipment retrofit for all DOJ-owned labs. The DOJ's efforts to conduct energy savings projects on these buildings have been extensive. All eight labs have been audited as of December 2022. Projects to retrofit energy equipment are currently underway. DOJ is working with the DGS Office of Sustainability on these energy savings projects and based on the DGS selected vendor's estimates, DOJ is projected to save 1,013,489 kWh annually when these initial projects are complete.

Demand Response (DR)

Executive Order B-18-12 directed all state departments to “participate in available Demand Response (DR) programs and to obtain financial incentives for reducing peak electrical loads when called upon, to the maximum extent that is cost-effective for each State-owned or leased facility and does not materially adversely affect department operations.” The 2022 summer heat waves further prompted the Governor's Office to request that departments curtail power where possible during grid emergencies.

Departments can employ DR to reduce energy use in their buildings in response to requests from California's grid operator (CAISO) or during periods when energy costs are high (during “peak hours”). CAISO will issue “Flex Alerts,” and other calls for energy reduction from residents and commercial users.

Departments are to curtail their energy usage whenever possible during a Flex Alert. DR programs are also used for reducing energy use during specific periods of the year (e.g., seasonally). DR programs operate throughout the year when energy supplies are low or when the grid operators need a reduction of energy demand.

Participating in DR Utility Programs & Participating in DR Events

Table 3.7 : Demand Response (DR) Program Participation

Demand Response	Total Number of Buildings	Total Nominated Reduction (kW)	Total Curtailment in 2023 (kW)	Total Curtailment in 2024 (kW)
Enrolled with Enersponse	6			
Participate in DR	5			
Participate in ADR	0			
Total Participating (DR/ADR*)	5	150	0	572.2
Enrolled in DR/ADR in 2025	4			
Under Construction or Renovation during 2025	0			
Ineligible to Participate	2			
Entire Agency's Building Portfolio	8			

*Automatic Demand Response (ADR)

Reporting Narrative for Table 3.7: Demand Response (DR) Program Participation

DOJ is currently participating in the Enersponse DR program to help reduce energy use at peak hours at a level 1 basis. DOJ energy reduces energy loads by adjusting lighting intensity and is looking into changing thermostats to smart thermostats in the future.

Six DOJ buildings have been participating in the DR program. In 2024, are the Redding, Freedom, and Fresno, were initially enrolled in the Demand Site Grid Support (DSGS) Option 2, and Santa Barbara, and Riverside in the Demand Response Auction Mechanism (DRAM). Santa Rosa's enrollment into the program was delayed since the UUID (Universal Unique Identifier) was required. And the total energy reduction curtailment in 2024 was 572 kilowatts.

In 2025, due to the DRAM pilot program's termination, all participating DOJ BFS labs transitioned to the Resource Adequacy (RA) program, for which the SCE sites, Santa Barbara, and Riverside are still waiting to finalize their enrollment.

Planning Narrative for Table 3.7: Demand Response (DR) Program Participation

The department currently does not have a plan to incorporate all facilities into this program, only the ones that qualify through Enersponse. The BFS Eureka lab did not qualify since the energy loads were too low and even though the Ripon lab has great shed potential, it operates within the Modesto Irrigation District which does not participate in the program; therefore, these two labs were not included in table 3.7.

Renewable Energy

Renewable energy in the form of solar power, wind, and other clean renewable energy help reduce Greenhouse Gas (GHG) emissions from state operations. Although there are no specific kW goals for renewable energy, renewable energy does count towards meeting: (1) 20% grid-based energy use reduction by 2020, (2) Zero Net Energy goal for 2025 and (3) 100% renewable electricity purchases by state agencies by December 31, 2035.

EO B-18-12 requires that new or major renovated state buildings over 10,000 square feet must use clean, on-site power generation, and clean back-up power supplies, if economically feasible. SB 1020 requires that state agencies purchase 100% renewable electricity by December 31, 2035. Facilities with available open land must consider large-scale distributed generation through various financing methods, including, but not limited to, third party power purchase agreements (PPAs). In considering economic feasibility, departments should consider, at a minimum, both present and future costs of energy, demand management benefits of onsite generation, facility resiliency during power outages, and carbon emissions compared to grid power.

SAM Chapter 1815.31 states that renewable energy can also be obtained through off-site long-term agreements that can be allocated toward energy efficient buildings in department portfolios to help them qualify as ZNE portfolio buildings.

Table 3.8 summarizes DOJ's operational, in construction, or in planning renewable

energy.

Table 3.8: 2024 On-Site and Off-Site Renewable Energy

Status	Number of Sites	Capacity (kW)	2024 Power Generation (kWh)	Percent of Total Annual Power Use
On-Site Renewables in Operation or Construction	4	402	646,433	30%
On-Site Renewables Planned	4	451	682,100	21%
On-Site Renewables Totals	8	853	1,328,533	51%
Department-Wide Total Energy Use (kWh equivalent)	0	0	0	0
Off-Site Renewable Totals	0	0	0	0
Off-Site Renewables Planned	0	0	0	0
Off-Site Renewables Combined Current & Planned	0	0	0	0
Current Combined On-Site and Off-Site Renewable Energy	8	853	1,328,533	51%
Additional Planned On-Site and Off-Site Renewables	0	0	0	0

Planning Narrative for Table 3.8, for all Existing Building Renewable Energy

DOJ currently has three sites whose grid energy comes directly from off-site clean and renewable sources (table 3.9) as indicated in the utility bills. The BFS – Freedom Forensic Laboratory receives its electricity from Central Coast Community Energy, the BFS – Eureka Forensic Laboratory uses Redwood Coast Energy Authority, and the BFS – Santa Rosa Laboratory uses Sonoma Clean Power. These public agencies provide a wide range of energy services to the local communities they serve. Electricity from these agencies is delivered to the labs through PG&E, who remains an essential partner for power distribution.

Renewable energy generation is important to meet DOJ's GHG emission goals. In August 2023, the Department determined the feasibility and approved the installation of on-site renewable energy. As part of the Energy Reduction Project, DOJ is currently working with DGS to assess all DOJ-owned facilities for solar installation and so far, the Santa Barbara, Freedom, Eureka, and Fresno labs have been selected for on-site rooftop solar installation in collaboration with PG&E as the Energy Service Company (ESCO) and Centrica. The Department is targeting

the remaining four sites as potential candidates and will be assessing those sites for solar projects in the near future.

DOJ has not yet met the zero-net energy goal of generating >50% of its energy from renewable resources. DOJ does not yet have a plan to get 100% renewable energy purchases by 2035 but is in the process of adding on-site renewable energy generation through solar panels to help carry some of the energy load of the labs.

Monitoring-Based Commissioning (MBCx)

Monitoring-based Commission (MBCx) is an energy efficiency practice that uses software and hardware to capture building data and apply analytics to identify anomalies and deficiencies in the operation of a building. SAM Chapter 1815.3 requires all state agencies managing state-owned buildings to pursue MBCx for all facilities over 5,000 square feet whose EUIs exceed the required thresholds.

All existing state buildings over 5,000 square feet whose EUIs exceed required thresholds are to incorporate Monitoring-Based Commissioning (MBCx) to support cost effective and energy efficient building operations and Environmental Monitoring System (EMS)/Building Management System (BMS).

Table 3.9 lists DOJ's buildings that currently have MBCx projects in place.

Table 3.9: Current & Potential MBCx Projects

Facility	Building Name	Floor Area (sq. ft.)	MBCx Capable, Difficult, or No EMS	MBCx Projected Start Date	MBCx Projected Cost (\$ if known)
11087	BFS-FRESNO	36,684	Capable	2025	666,334
BFS FORENSIC LABORATORY	BFS-RIVERSIDE	39,404	Capable	TBD	39,404
BFS FORENSIC LABORATORY	BFS-RIPON	31,000	Capable	TBD	31,000
BFS FORENSIC LABORATORY	BFS-SANTA ROSA	13,900	Capable	TBD	13,900
BFS FORENSIC LABORATORY	BFS-SANTA BARBARA	14,722	Capable	TBD	14,722

Facility	Building Name	Floor Area (sq. ft.)	MBCx Capable, Difficult, or No EMS	MBCx Projected Start Date	MBCx Projected Cost (\$ if known)
BFS FORENSIC LABORATORY	BFS–REDDING	16,600	Capable	TBD	16,600
BFS FORENSIC LABORATORY	BFS–FREEDOM	12,742	Capable	TBD	12,742
BFS FORENSIC LABORATORY	BFS–EUREKA	10,300	Capable	TBD	10,300

Planning Narrative for Table 3.9: MBCx Status of Buildings

DOJ's goal is to implement MBCx at the Fresno lab within the next six months as part of the Energy Reduction Project with PG&E in collaboration with DGS.

The Fresno laboratory has a high demand of energy because it is the second largest out of all the labs. The Fresno lab is the only facility where DOJ is currently working to incorporate MBCx by upgrading its Building Management System and Energy Management System (BMS/EMS) to a newer model. This BMS/EMS system has been operating since the building's construction in 2003 and needs to be replaced with a more efficient model. This outdated system has been malfunctioning recently and is wasting energy. The BMS/EMS improvement at the Fresno lab will deliver about 97,404 kWh/yr. in energy annual savings and 9,405 therm/yr. in gas annual savings.

To comply with SAM Chapter 1815.3, DOJ will be considering to conduct retro-commissioning projects for all the other labs to improve and optimize the energy use efficiency and building performance which might deliver 10 to 40% energy savings on the heating and cooling systems. This project would deliver additional energy and gas savings that Glumac estimated to be about 179,394 kWh/yr. and 6,780 therm/yr., respectively.

Building Controls

Reporting on EMS/BMS/Controls Building Capability

Building controls such as Energy Management Systems (EMS) and Building Management Systems (BMS), as well as smart thermostats for smaller buildings can be effective in automating functions that reduce energy use. For example, EMS controls can be set on a schedule that automatically ensures all lights and equipment are turned off at the end of each workday. Building HVAC controls can be set to allow for a +2- or -2-degree fluctuation from the temperature set point seasonally. Today's EMS and BMS offerings on the market offer numerous ways for departments to reduce power purchased (energy use) and save money on their utility bills.

The ability to control a building's major systems is important to participate in DR, which helps reduce energy use and improve overall energy efficiency while upholding best management practices for energy use. Building controls, whether they are an EMS/BMS systems or smart thermostats, contribute to overall building energy efficiencies.

Table 3.10 below includes DOJ's existing EMS/BMS controls currently installed.

Table 3.10: Building Controls

Equipment Controls	% of Buildings Controlled Remotely Offsite	% of Buildings with Controls Onsite	% of Total Buildings
Lighting	0	100	100
HVAC: EMS/BMS	0	80	80
HVAC: Smart Thermostats	0	13	13
Other: Temperature sensors?	0	13	13

Planning Narrative for Table 3.10: EMS/BMS/Controls Building Capability

None of DOJ's controls operate remotely off-site. This is due to security concerns. Confidential data is stored at these locations, therefore; all buildings must operate using on-site controls. All DOJ labs operate 24/7 with lighting and HVAC controls set to automatically power down to 50% load capacity between the hours of 6 p.m. and 6 a.m.

For the labs that do not have an EMS/BMS, the option of installing smart thermostats for these locations will be investigated. So far, only the Ripon lab has smart thermostats and temperature sensors. Labs do not operate like normal office buildings and certain rooms need to be kept at a constant temperature for testing purposes. There are currently no plans to install an EMS/BMS at all locations. This equipment upgrades are costly to the department; therefore, the labs receive upgrades on an as needed basis and only when they are malfunctioning. DOJ sees this need as a low priority project since these labs are relatively small (from 10,300 to 39,404 square feet) and already have a low energy output.

Energy Reduction Strategies - Best Management Practices (BMPs)

Building Best Management Practices (BMPs) are ongoing actions establishing and maintaining building energy use efficiency.

The following Management Memos and sections of the State Administrative Manual (SAM) provide specific Instructions and support for helping departments reduce energy use and comply with Title 24:

- Department of Technology's [Basic Policy 4819.31](#), item 13: Power. management savings on electronic devices.
- [Management Memo 14-07](#) "Standard Operating Procedures for Energy Management in State Buildings" and its associated [Standard Operating Procedures](#).
- [Management Memo 14-09](#) "Energy Efficiency in Data Centers and Server Rooms" greater than 200 and 1,000 square feet.

Planning Narrative for Energy Reduction Strategies in Department Buildings Best Management Practices (BMPs)

The Management Memo 14-07 provides standard operating procedures for energy management in state buildings, and the SAM Chapter 1805.3 outlines standard operating efficiency procedures that DOJ will use as reference to put together a best practice guide for all locations. This guide will include general energy management procedures, ensure a facility conserves energy and uses it efficiently. It is essential that these facilities and employees of DOJ have access to a list of BMPs. While it is impractical to monitor employee adherence to every one of the BMPs, monitoring of monthly energy use should still be conducted to identify locations where energy use is increasing, and where potential problems may exist to address them accordingly.

CHAPTER 4 - DECARBONIZATION

Department Mission and Decarbonization Efforts

This chapter of the Sustainability Roadmap provides a framework for analyzing and summarizing decarbonization solutions and projects related to the Department's Scope 1 and Scope 2 greenhouse gas emissions, with a focus on electrifying stationary equipment in state buildings. It supports the Department's efforts to meet the 2035 net-zero emissions for operations goal established by Senate Bill 1203 (Becker 2022).

Senate Bill 1203 requires state agencies to develop and implement a plan to achieve net-zero emissions in their operations by 2035. Primary actions to decarbonize agency operations include building electrification, energy efficiency improvements, and installation or procurement of renewable energy. Agencies are expected to update these plans every two years to track progress toward the 2035 goal.

BFS operates 10 regional crime laboratories for which forensic scientists collect, analyze, interpret, and compare physical evidence from suspected crimes. These facilities are part of the Bureau of Forensic Services (BFS) regional laboratory system that was established in 1972 to provide assistance to local law enforcement agencies that did not have access to local crime laboratory services in 46 of the state's 58 counties.

The 8 BFS labs that DOJ owns and manages total to 174,108 square feet. The Department's mission requires that all DOJ labs stay operational while providing essential services to the state of California. DOJ uses electricity and natural gas to operate these lab facilities, primarily for space cooling and heating and to operate lab equipment permanently, correctly, and efficiently to ensure adequate environmental conditions to run and manage the lab equipment including but not limited to the preservation, maintenance, and storage of evidence. The department is reducing emissions through upcoming energy efficiency projects, including installing solar PV, and improved energy management by upgrading old/broken equipment. These actions support progress toward the 2035 carbon neutrality target in [Senate Bill 1203](#).

This chapter presents consolidated information for owned building assets and covers leased assets when information is available or relevant. It also identifies current and potential Scope 1 (Stationary Combustion from natural gas) and Scope 2 (Purchased Electricity - Market Based) emission reduction strategies related to building operations, as well as ongoing initiatives and planned actions

aligned with the 2035 target. Scope 1 emissions from fleet fuel purchases are reported, and details about fleet vehicles and strategies for Scope 1 (mobile combustion) emissions reduction are addressed in Chapter 2 – Zero Emission Vehicles. Glumac and the DGS Office of Sustainability have supplied carbon emissions data for DOJ's buildings, which have been verified by the department's Sustainability team. Data tables included in the Roadmap have been calculated and formatted consistently to ensure clarity and facilitate effective analysis.

The three largest labs (Ripon, Riverside, and Fresno) are the most energy-intensive buildings and processes can be quite demanding. Due to the DOJ mission, conservation measures would be restrictive to the labs and limit their ability to perform important tasks while monitoring energy use. However, DOJ is actively taking steps to upgrade certain equipment with models using low-energy output.

Greenhouse Gas Emissions

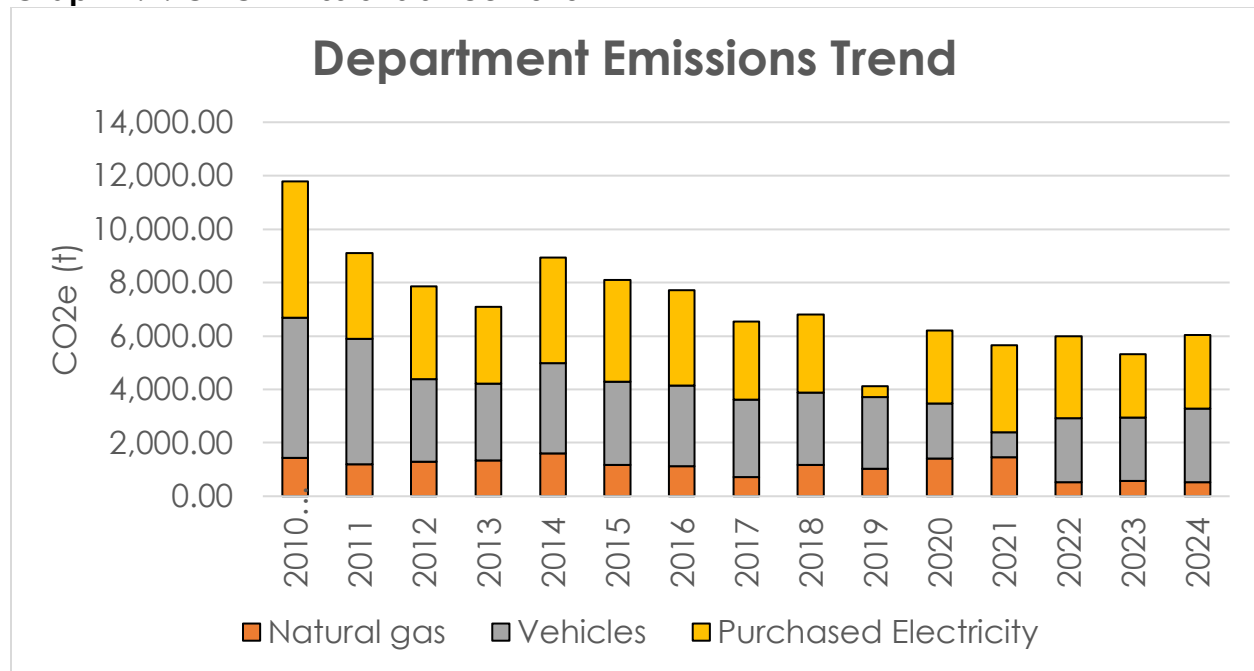
The table below shows an overview of ALL greenhouse gas emissions across the portfolio, including stationary buildings, vehicles, emergency generation equipment, and other fossil fuel sources. A trend is included to help demonstrate progress and to emphasize key contributors to GHG emissions.

State agencies were directed to take actions to reduce entity-wide greenhouse gas emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline in compliance with [EO B-1812](#). Looking forward, [SB 1203](#) declares that state agencies will aim to achieve net-zero emissions of GHGs no later than January 1, 2035, or as feasible thereafter.

Table 4.1: GHG Emissions since 2010 (Metric Tons of CO2e)

Emissions Source	Natural gas	Vehicles	Purchased Electricity	Total
2010 Baseline	1,444.72	5,237.85	5,093.81	11,776
2011	1,190.72	4,713.27	3,198.80	9,103
2012	1,294.17	3,085.61	3,475.20	7,855
2013	1,344.99	2,862.29	2,880	7,087
2014	1,611.09	3,369.84	3,960.53	8,941
2015	1,183.31	3,116.18	3,795	8,095
2016	1,135.00	3,017.64	3,568.85	7,721
2017	718.75	2,897.19	2,926	6,542
2018	1,168.42	2,709.80	2,932	6,810
2019	1,035.01	2,680.49	396	4,112
2020	1,409.96	2,059.28	2,726	6,195
2021	1,457.14	929.002276	3,259.54	5,646
2022	532.63	2,379.66	3,078.62	5,991
2023	573.45	2,380.53	2,358.10	5,312
2024	533.42	2,757.85	2,749.20	6,040
Percent Change since Baseline	-63%	-47%	-46%	-49%

Graph 4.1: GHG Emissions since 2010



DOJ has been reporting greenhouse gas (GHG) emissions due to electricity, natural gas, and vehicle fuel purchases for its facilities into the Climate Registry Information System (CRIS) since 2020. There has been progress in reducing emissions by 49% compared to the 2010 baseline, which exceeds the 20% reduction goal. Natural gas has contributed the most to the GHG reduction, followed by vehicle fuel and electricity purchases.

Note: The remaining content of Chapter 4 will focus on GHG emissions generated from stationary equipment within buildings ONLY. Emissions from transportation or fleet and other sources along with the past efforts made are not included.

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

The strategies listed below will help the department meet the GHG reduction goals. DOJ may use any or all of these strategies, but not limited to:

- Energy Efficiency
- Electrification of In-Building - Systems
- On-Site Renewable Energy
- Purchased Renewable Energy
- Fuel Efficient Vehicles
- Zero Emission Vehicles

- Biofuels

Department's Decarbonization Approach

DOJ's approach to decarbonization includes a review of existing building data, energy use data, and benchmarking information, to inform project recommendations and costs.

Energy efficiency projects are recommended first to reduce overall Scope 1 and 2 emissions, followed by electrification projects to reduce, or eliminate Scope 1, stationary combustion emissions.

In addition to energy efficiency and electrification projects, renewable energy projects such as solar and options for procuring clean power are considered as part of a roadmap to achieve carbon-neutrality for Scope 2 emissions. Senate Bill 100 (SB 100) requires California energy suppliers to provide 100% carbon-free power by 2045, and Senate Bill 1020 (SB 1020) requires state agencies to purchase 100% carbon free electricity by 2035. Achieving net-zero carbon emissions for Scope 2 sources by 2035 will require DOJ to pursue renewable energy and clean power projects, which are being implemented as soon as 2026 as part of DOJ's energy efficiency project which includes the installation of rooftop solar for selected labs.

Existing Conditions Assessment

An initial step in preparation for planning department decarbonization details of efforts toward zero emissions was to take an inventory of all department carbon emitting equipment and systems. This step helped the department identify which building systems will need to be electrified by 2035, and help strategize depending on upcoming renovations, equipment condition (and need for end-of-life replacement anyway), future facility obsolescence, and planning for upgrades. This section identifies fossil fuel-consuming equipment and systems across the department's buildings to provide a baseline understanding of Scope 1, stationary combustion emissions sources.

DOJ existing emission sources are described below:

- Scope 1 Direct Emissions:
 - Stationary combustion from natural gas and diesel equipment.
 - Mobile combustion from vehicle gas and diesel consumption.

- Scope 2 Market Based – Indirect Emissions from Purchased Electricity.

The department's current mitigation strategies include participation in Enerresponse's demand response program and implementation of the energy emergency alert action plan level 1 respond measures to help curtail energy use during certain times of the day when the extreme weather conditions put the stability of the grid at risk and demand is high. See Chapter 3 for an overview of the department's energy use and management, including the department's energy efficiency measures, and any renewable energy technologies currently employed.

DOJ uses natural gas to heat its buildings and diesel for its generators and vehicles. Some vehicles are emergency response vehicles which run on diesel and are needed to access remote locations and respond to crime scenes. The generators in the labs run on diesel fuel and are only active when there is a power outage. The buildings are old and were built with natural gas boilers for heating. Some buildings still run on the original boilers. The adequate environmental conditions are critical to both the staff and to maintain lab processes thus the electrification of the buildings is seriously being looked into as the boilers are constantly failing and are due for replacement.

Carbon Inventory Worksheet

Planning Narrative for Carbon Inventory Worksheet

Glumac, the DGS' consultant that have been assisting state agencies in the planning and scoping process for decarbonization, completed the Carbon Inventory worksheet on DOJ's behalf for the department's lab facilities. Details will be outlined in the next sections.

Owned Building Inventory

The following table shows DOJ's basic building attributes and fossil fuel usage in owned assets. Table 4.1 Option A: Baseline Building Inventory – Owned Facilities

Table 4.2: Baseline Building Inventory – Owned Facilities

Building Name	Building Type	Square Footage	Fossil Fuel Consuming Equipment*	Total Building Emissions (MTCO ₂ e)
BFS-EUREKA	LABORATORY	9,771	<ul style="list-style-type: none"> ○ Electric Heat Pump Rooftop Unit ○ Natural Gas Unitized Water Heater 	31
BFS-Ripon	LABORATORY	32,000	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Natural Gas Unitized Water Heater ○ Diesel Generator 	300
BFS-SANTA BARBARA	LABORATORY	13,800	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Natural Gas Unitized Water Heater ○ Diesel Generator 	154
BFS-SANTA ROSA	LABORATORY	15,645	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Natural Gas Unitized WH Diesel Generator 	179
BFS-FREEDOM	LABORATORY	11,086	<ul style="list-style-type: none"> ○ Natural Gas Rooftop Unit ○ Natural Gas Unitized Water Heater 	55
BFS-FRESNO	LABORATORY	36,007	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Natural Gas Unitized Water Heater ○ Diesel Generator: 	346
BFS-RIVERSIDE	LABORATORY	39,000	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Natural Gas Unitized Water Heater ○ Diesel Generator 	385
BFS-REDDING	LABORATORY	16,799	<ul style="list-style-type: none"> ○ Natural Gas Heating Hot Water Boiler ○ Electric Unitized Water Heater ○ Diesel Generator 	144

*Primary Building Heating and Domestic Hot Water Systems, and other equipment: Elec: Electric; HP: Heat Pump; RTU: Rooftop Unit; NG: Natural Gas; WH: Water Heater; HHW: Heating Hot Water.

Leased Building Inventory

The typical fossil fuel consuming equipment at the leased facilities are the primary building heating and domestic hot water Systems. Decarbonization projects associated with leased buildings are typically the responsibility of the building owner. Emissions associated with leased assets included in this section are for informational purposes. Currently, there are no buildings under a built-to-suit (BTS) lease.

DOJ does not have responsibility to implement any electrification of building natural gas or fuel-fired systems in the leased facilities. However, the DOJ facilities team will make efforts to reduce Scope 1 and Scope 2 emissions at leased sites in the future leases by considering locations with electrified or energy efficiency equipment for the heating and cooling systems as well as purchased renewable energy available from utilities or on-site renewable energy.

Table 4.3 below lists 18 buildings categorized as leased buildings in 2024 for which DOJ reports GHG emissions annually in the Climate Registry Information System (CRIS5 report).

Table 4.3: Baseline Building Inventory – Leased Facilities

Building Name	Lessor Agency	Leased Square Footage	Total Property Emissions (MTCO₂e)
AG-San Diego	The Irvine Company, LLC	103967	328
CJIS-Sacramento	Rancho Cordova CA SGF, LLC	95375	301
DLE/BFS-Richmond 1	Point Richmond R&D Associates	70143	222
DLE/CJIS-Commerce 1	Omninet Commerce Owner, LLC	43915	139
DLE-Sacramento	CFT NV Developments LLC	28995	113
DLE-Fresno	Dana Butcher Associates	35400	112
DLE-San Diego	Chesapeake Whiteside, LLC	25268	80
DMFEA-Sacramento 1	Natomas Gateway Corporate Center	23890	75
DMFEA/DLE-Riverside	Laura Lane Partnership, LLC	23043	73
DMFEA-San Diego	FSP Pacific Center, LLC	20116	64
DLE/BFS-Richmond 2	Point Richmond R&D Associates	20321	64
DLE/DMFEA-Dublin	Toda America, Inc.	16150	51
DLE-Commerce 2	Omninet Commerce Owner, LLC	14041	44
DMFEA-Burbank	303 N. Glenoaks Boulevard CA, LLC	8828	28
DMFEA-West Covina	Lakes Property Owner, LLC	7433	23
BFS-Chico	James S. Rickards	6223	20
DMFEA-Orange	Orange Center Tower Owner, LLC	5108	16
DMFEA-Redding	MT&Z Investments, LLC	3545	11

Note: There was not data available to report for DMFEA - Sacramento 2.

There is not an inventory for private lessors' assets in the leased buildings.

Central Utility Plant and Energy Intensive Operations Inventory

No existing central utility plants (CUP).

Table 4.4: Central Utility Plant Inventory

Existing Plant Type	Property Name	Connected Building Count	Natural Gas Consumption (Therms)	Fuel Oil Consumption (kBtu)	Total Carbon Emissions (CO ₂ e)
NO CUP					

Decarbonization Measures

This section summarizes the decarbonization measures the department has already implemented prior to this plan. Description of prior actions include a narrative outlining the actions from the past 2-3 years.

The department is currently in the process of completing energy efficiency projects. Following an energy audit conducted in 2022 for all the labs, DOJ began looking into renewable source measures such as installing rooftop solar systems. The cost of this project slowed the process down, but funding was secured through a GS \$Mart loan this year and the anticipated completion of this project is now by the end of 2026. This will help reduce the scope 2 emissions and the load of energy demand for the buildings. DOJ is currently working with a team of experts ready to assist with these project types.

DOJ is advancing to the construction and commissioning phase of this project which is its first Energy Savings Performance Contract (ESPC) Project that will be implementing energy- and water-efficient solutions for all DOJ-owned facilities in partnership with PG&E, Centrica Business Solutions (CBS) and the DGS Energy Savings Program team.

In November 2025, the California Department of Justice joined the ESPC Campaign as an ESPC Champion. Through this strategy, the Department of Energy is moving forward on the goal to spread awareness of ESPC best practices across the public sector and achieve \$1 billion in measured & verified energy and operational cost savings from ESPC projects by 2030. As an ESPC Campaign partner the Department has received technical assistance from the DOE's consultant, the Energy Services Coalition (ESC) team, who reviewed the Investment Grade Audit report including project scope (ECMs), baselines, savings

calculations, M&V plan, and financial analysis. The IGA is critical to ESPC project success and serves as a baseline on which other contract components build to execute high-quality ESPC projects.

The DOJ is expecting to achieve substantial financial, energy, and environmental savings with the implementation of the ESPC project. CBS will install water efficient plumbing fixtures and Energy Conservation Measures (ECMs), including upgrades to the interior & exterior LED lighting, controls, HVAC units, and building management and on-site renewable energy generation systems to the BFS-owned labs.

The ESPC project is being financed through a 12-year term GS \$Mart loan, which is projected to deliver energy and water savings that for the first year are estimated to reduce about 1,013,489 kWh in electricity, 9,405 therms in natural gas, and 47 kgal of water usage, as well as to generate \$11,444 of Equipment Replacement savings. When this project is complete, the department will be reducing carbon emissions at a rate of 513 (mt/CO₂e/yr.) and will offset energy usage between 22 to 100% at the BFS labs where the PVs are installed.

Additionally, DOJ is looking into the costs involved and feasibility of the complete omission of natural gas and diesel use in the labs' cooling and heating systems. Therefore, the deferred maintenance plan for the next five years would need to be reviewed to upgrade the equipment scheduled to be replaced with energy efficient or electrification measures. So, for instance, instead of installing traditional boilers and heaters, replace them with heat pumps. Some of these upgrades are being initiated by the DOJ facilities team when needed as soon as FY 2025 and as funding becomes available.

Future investments required to achieve decarbonization will need to be budgeted for. Investment types include the implementation of energy efficiency measures by replacing electric resistance domestic hot water heaters with heat pump water heaters, as well as the electrification of lab facilities by using electric heat pump units for heating hot water, space heating, and other processes as well as to decarbonized power systems to build resilience in the case of a power outage.

As funding becomes available, the DOJ's Sustainability and Facilities teams will be making efforts to implement electrification or energy efficient measures to replace the backup generators with sustainable alternatives that would provide a continuous energy supply and reduce the energy demand on the grid and the environmental impact. Therefore, a microgrid feasibility assessment might be conducted to determine the size of the battery required to meet the energy loads at each lab, along with the alternatives that DOJ could evaluate:

- Size a battery to cover the full load of a typical outage or,
- Size a smaller battery alongside a diesel generator,
- Battery-powered solar generators or,
- Linear generators.

Lastly, the use of electric vehicles (EVs) for DOJ's fleet is still limited because of their current range, which may compromise the sensitive nature of emergency and law enforcement response vehicles as well as the mission-related need for these vehicles to reach rural areas of California that may lack charging stations. For further information, refer to Chapter 2 of the Roadmap.

All these decarbonization measures will help DOJ moving in the right direction for total electrification in the years to come.

Building Electrification Measures

The building electrification measures applicable to the department include the upgrading of HVAC systems by replacing natural gas boilers with air-to-water heat pumps and rooftop units with heat pump units and replacing natural gas domestic hot water heaters with electrified heat pump water heaters. Details are provided in Table 4.5 below per electrification measure from the ones that will deliver the greater GHG reductions.

Table 4.5: Building Electrification Measure Summary

Building Name	Measure*	Fossil Fuel Savings (kBtu)	Electricity Savings (kWh)	Emissions Savings (MTCO2e)	Utility Cost Impact (\$)
BFS-RIVERSIDE	HVAC_AWHP	2,305,800	-258,994	71.13	-\$24,785
BFS-SANTA ROSA	HVAC_AWHP	1,780,100	-209,753	52.97	-\$35,233
BFS-FRESNO	HVAC_AWHP	1,441,100	-169,805	42.88	-\$28,522
BFS-Ripon	HVAC_AWHP	1,319,900	-148,260	40.71	-\$15,494
BFS-SANTA BARBARA	HVAC_AWHP	1,125,300	-111,101	37.74	-\$15,213
BFS-REDDING	HVAC_AWHP	24,400	-2,746	0.75	-\$321
Totals HVAC_AWHP		7,996,600	-900,659	246.18	-119,567
BFS-RIVERSIDE	DHW_Hybrid HP WH	419,200	-31,477	16.02	\$119
BFS-FRESNO	DHW_Hybrid HP WH	262,000	-19,672	10.01	-\$1,507
BFS-Ripon	DHW_Hybrid HP WH	240,000	-18,019	9.17	-\$378
BFS-SANTA ROSA	DHW_Hybrid HP WH	208,500	-15,654	7.97	-\$1,199
BFS-SANTA BARBARA	DHW_Hybrid HP WH	204,600	-15,362	7.82	-\$1,177
BFS-EUREKA	DHW_Hybrid HP WH	154,500	-11,600	5.91	-\$889
BFS-FREEDOM	DHW_Hybrid HP WH	65,200	-4,892	2.49	-\$374
Totals DHW Hybrid HP WH		1,554,000	-116,676	59.40	-5,405
BFS-FREEDOM	HVAC_HP RTU	3584	-36,365	11.83	-\$5,167

*HVAC: Heating, Ventilation, and Air Conditioning; AWHP: Air-to-Water Heat Pump; DHW: Domestic Hot Water; HP: Heat Pump; WH: Water Heater; and RTU: Rooftop Unit.

CUP Electrification Options

NO CUP

Table 4.6: CUP Measure Summary

Property Name	Recommended Strategy	Fossil Fuel Savings (kBtu)	Electricity Savings (kWh)	Emissions Savings (MTCO ₂ e)	Utility Cost Impact (\$)
NO CUP					

Building Energy Efficiency Measures

DOJ's suggested energy efficiency measures include lighting retrofits and retro-commissioning project for all the BFS labs and replacing the electric resistance DHW heater at the Redding lab with a more efficient heat pump water heater. Details are provided in Table 4.7 per energy efficiency measure from the ones that will deliver the greater GHG reductions.

Table 4.7: Energy Efficiency Measure Summary

Building Name	Measure*	Fossil Fuel Savings (kBtu)	Electricity Savings (kWh)	Emissions Savings (MTCO₂e)	Utility Cost Impact (\$)
BFS-FRESNO	RCx	162,100	67,184	21.9	\$25,130
BFS-RIPON	RCx	148,500	56,940	19.16	\$18,343
BFS-RIVERSIDE	RCx	172,900	41,972	17.49	\$16,334
BFS-SANTA ROSA	RCx	200,300	19,085	14.42	\$10,055
BFS-SANTA BARBARA	RCx	126,600	21,757	11.03	9,539
BFS-REDDING	RCx	2,800	33,920	6.87	9,713
BFS-FREEDOM	RCx	26,900	5,720	2.56	2,387
Totals RCx		840,100	250,850	94.31	92,905
BFS-RIVERSIDE	Lighting LED	0	78,087	15.47	\$23,139
BFS-FRESNO	Lighting LED	0	66,663	13.21	\$21,894
BFS-REDDING	Lighting LED	0	42,072	8.331	\$11,981
BFS-Ripon	Lighting LED	0	24,718	4.90	\$6,744
BFS-SANTA BARBARA	Lighting LED	0	24,287	4.81	\$7,977
BFS-SANTA ROSA	Lighting LED	0	23,672	4.69	\$7,775
BFS-FREEDOM	Lighting LED	0	10,110	2.00	\$3,320
BFS-EUREKA	Lighting LED	0	3,487	0.69	\$1,145
Totals Lighting LED		0	273,096	54.11	83,976
BFS-REDDING	DHW Hybrid HP WH (EFF)	0	47,230	9.36	\$13,450

* DHW: Domestic Hot Water; HP: Heat Pump; WH: Water Heater; and EFF: Energy Efficiency Factor.

Decarbonization Action Plan

This section outlines the strategies the department will use to achieve carbon neutrality by 2035, as required by Senate Bill 1203. The department may use either of these strategies in part or in total or may use any additional strategies not listed below:

- Energy Efficiency
- Electrification of In-Building Systems
- On-Site Renewable Energy
- Purchased Renewable Energy Fuel Efficient Vehicles
- Zero Emission Vehicles
- Biofuels

By implementing some of these strategies, the DOJ is actively working towards achieving net-zero carbon operation for its stationary assets where feasible. The following actions have been split into short-term, mid-term and long-term plans for reducing carbon impact of the department's operations to align with existing infrastructure conditions, deferred maintenance plans, and five-year infrastructure and sustainability plans.

Short-Term Actions (2025–2030):

- **Electrification Projects:**
 - Replace natural gas boilers with air-to-water heat pumps units at Santa Rosa (2025), Redding, Ripon, Fresno, Santa Barbara, and Riverside.
 - Replace a natural gas boiler rooftop unit with a heat pump rooftop unit at Freedom.
 - Replace the natural gas domestic hot water heaters with electrified heat pump water heaters at Eureka (2025), Riverside (2025), Fresno (2026), Santa Rosa (2027), Ripon, Freedom, and Santa Barbara.
- **Energy Efficiency Upgrades:**
 - HVAC unit upgrades (deferred):
 - Energy efficient chillers at Ripon (2025), Santa Rosa (2025), and Riverside (2026).
 - Energy efficient cooling towers at Fresno (2026) and Riverside (2026),
 - Chiller precooler at Redding (2025).
 - Air Handler Unit at Santa Barbara (2028),
 - Split system at Redding (2026), Santa Barbara (2030).

- LED Lighting & Controls: Santa Rosa, Eureka, Redding, and Ripon labs.
- Lighting Controls: Fresno, Riverside, and Freedom labs.
- HVAC Unit Upgrades (Redding, Fresno, Riverside, and Ripon labs):
 - Hot Water Heaters, 100 Gal, 250,000 BTUH: Fresno and Riverside
 - Condensers and ductless split systems:
 - Three condensers totaling 19.5 tons: Redding lab.
 - One 6-ton condenser: Fresno lab.
 - One 1.5-ton ductless split system: Riverside, and Fresno labs.
 - One 2.5-ton ductless split system: Ripon lab.
- Rooftop Photovoltaic Solar systems (PV systems): Freedom (88.9 kW), Fresno (181.3 kW), Santa Barbara (64.3 kW), and Eureka (67.9 kW) labs.
- Building Management System and Energy Management System (BMS/EMS system): Fresno lab.
- Commissioning Activities for the above Energy Conservation Measures (lighting, HVAC, and building management systems upgrades as well as the PV installation).
- Conduct pilot Retro-Commissioning (RCx) processes to identify and optimize building controls. Priority will be given to Riverside, Fresno, and Ripon.
- Complete LED retrofit for all remaining fluorescent bulbs at all the Fresno, Freedom, Santa Barbara, and Riverside labs.
- Replace the electric resistance domestic hot water heater with a more efficient heat pump water heater at the Redding lab.
- Install on-site renewable energy PV systems at the Santa Rosa, Redding, Freedom, and Riverside labs. Generators at Riverside (2026), Fresno (2027).
- **Infrastructure & Planning:**
 - Validate electrical capacity for the lab facilities with local utility providers.
 - Allocate rooftop or outdoor space for heat pump unit installations.
 - Develop monitoring protocols for utility bills, particularly for sites with hybrid heat pump water heaters.
 - Perform a microgrid feasibility assessment to determine the size of the battery required to meet the energy loads at each lab, along with the best alternatives for generators' replacement.

Mid-Term Actions (2031–2035):

- **Full Electrification:**
 - Complete removal of all remaining natural gas consumption within DOJ's building portfolio.

- Transition of electric resistance domestic water heaters to heat pump systems to reduce electricity demand spikes and operational costs.
- **Operational Optimization:**
 - Implement automated building control systems if current controls are pneumatic, to improve operational efficiency.
 - Expand RCx projects to all facilities to maximize Scope 2 emissions reductions and utility cost savings.
- **Supply Management:**
 - Explore collaboration with utility providers to leverage incentives and grid modernization programs.

Long-Term Actions (2036 and beyond):

- **Sustainability & Maintenance:**
 - Maintain carbon neutrality through ongoing monitoring, maintenance, and upgrades of electrification and efficiency systems.
 - Evaluate and pilot emerging technologies such as advanced heat pumps, thermal storage, or onsite renewable energy integration.
- **Policy Adaptation:**
 - Update decarbonization plans in alignment with evolving state policies, technological advancements, and funding availability.
 - Foster continuous improvement and risk mitigation mindset within the department's operations, embedding sustainability into all capital planning.

Existing Challenges the department currently faces or expects to face in meeting decarbonization targets:

- **Electrical Capacity Constraints:** Validating and potentially upgrading from natural gas to electrical infrastructure at the labs to support changing policies requires coordination and capital investment.
- **Space Allocation:** Limited rooftop/outdoor space at certain labs for heat pump units could constrain project implementation.
- **Cost Implications:** Switching to fully electric heating systems is predicted to require significant capital investments and can have an increase of operating costs due to higher equivalent energy costs and demand charges. DOJ will need to seek affordable rates before proceeding.
- **Life Cycle of Existing Equipment:** Some existing heating and cooling systems that would require electrification still will have significant remaining life by 2035 and would require large investments ahead of anticipated replacement budgets.

- **Technological Integration:** Transitioning from pneumatic or local digital control systems to automated and direct digital building controls necessitates careful planning, system integration, and training. This will likely require large initial investment and may be restricted due to DOJ's strict security measures.
- **Budget and Staffing:** Availability of funding and skilled personnel to manage and execute decarbonization projects on schedule. DOJ is currently facing a year expenditure freeze and only critical needs have been funded.

Decarbonization Action Plan Implementation

DOJ's project implementation strategy includes following the plan above. Project prioritization will consider the projects needed the most (i.e., lab's equipment that is currently failing and are scheduled in the Deferred Maintenance plan) and those measures that will help the department balance between those identified for capital improvement, deferred maintenance, policy compliance, etc., and those that will have the greatest impact on the department's decarbonization plan. Sustainability initiated the project priority analysis by developing scoring matrix criteria under 6 categories as it is outlined below:

Category 1: GHG Emissions reductions potential

Priority criteria 1: GHG Emissions Reductions: Prioritize projects with the highest emissions and biggest decarbonization impact. KPI: GHG emissions reductions (MTCO_{2e}).

Score (1–5):

Projects with the highest emissions reductions score higher.

5: >500 metric tons CO_{2e} per year

4: 200-500

3: 100-199

2: 50-99

1: <50.

Category 2: Cost effectiveness.

Priority criteria 1: Cost: Lower cost projects relative to benefit. KPI: Total Project Cost (\$ USD).

Score (1–5):

Lower cost projects receive higher scores.

5: < \$250,000

4: \$250,000-\$500,00

3: \$500,001-\$1,000,000

2: \$1,000,001 - \$5,000,000

1: > \$5,000,000.

Priority criteria 2: Marginal Abatement Cost (MAC): Cost that reflects the trade-off between investment and the environmental benefits. Cost of reducing a unit of GHG emissions to achieve a given emission-reduction target. Lower or negative values indicate a net economic benefit.

KPI: Total Project Cost (\$ USD)/GHG emissions reductions (MTCO_{2e}).

Score (1–5):

Lower or negative values score higher.

5: < \$0/1 MTCO_{2e}

4: \$0-\$25

3: \$26-\$50

2: \$51-100

1: > \$100

Priority criteria 3: Return of Investment (ROI): Expected return on investment relative to the project cost, ongoing maintenance cost and cash flow generated.

KPI: (Investment's net profit or loss/Project cost) *100 (%)

Note: ROI with no discount rate and payback under 20 years.

Score (1–5):

Higher ROI (%) score higher.

5: >40%

4: 20-39%

3: 10-19%

2: 0-9%

1: <0%

Priority criteria 4: Payback time: The amount of time it takes to recover the project cost investment. KPI: Initial investment/Annual cash flow (Years).

Score (1–5):

Short times score higher.

5: < 2 years

4: 2-4 years

3: 4.1- 8 years

2: 8.1-12

1: > 12 years.

Category 3: Pilot projects/Urgent Initiatives.

Priority criteria 1: Time-sensitive: Target or time frame for project implementation. Project that must be implemented within a limited timeframe or target to reduce the risk of delay (e.g., meeting deadlines, failing infrastructure).

Score (1–5):

Most urgent initiatives score higher.

5: Must proceed this year

- 4: Ideally implemented this fiscal year
- 3: Preferably within 2 years
- 2: No immediate urgency
- 1: Can be postponed indefinitely.

Priority criteria 2: Innovation/Pilot Project: Trial electrification measures (changes from a previous power source, E.g., trial heat pump water heaters within next years).

Applies new, untested methods or technology with potential broader application or duplication.

Score (1–5):

Scored as 5 (Yes) or 0 (No).

Category 4: Equipment end of life/Project feasibility.

Priority criteria 1: Addresses Deferred Maintenance: Addresses risk of failure due to existing asset or equipment degradation based on its age, end of life, and ease of implementation.

Score (1–5):

Scored as 5 (Yes) or 0 (No).

Priority criteria 2: Feasibility: How ready the project is to be implemented based on Readiness, Funding, Staffing (SOW, assessments, design complete, funding secured, staff available).

Score (1–5):

Scored as 5 (Yes) or 0 (No).

Category 5: Bundling opportunities (Energy Savings Performance Contracting - ESPC)

Priority criteria 1: Leverage efficiency, electrification, and solar generation and /or storage projects for ESPC or other delivery.

Score (1–5):

Scored as 5 (Yes) or 0 (No).

Category 6: Social/Strategic

Priority criteria 1: Equity Impact/Lifecycle Benefit: Institutional/social benefits or goals reached by the decisions and actions taken and long-term benefits (reliability, adaptability, and resilience, reducing future risks).

Score (1–5):

Projects with the most Institutional/social benefits score higher.

- 5: Direct benefit/goal
- 4: Indirect benefit/goal
- 3: Broad benefit, no specific goal

- 2: Minor or neutral equity impact
- 1: Not benefit or potential burden.

Priority criteria 2: Meets Regulatory Requirement (s): Required by law, regulation, or policy.

Score (1–5):

Scored as 5 (Yes) or 0 (No).

The results of the initial application of this tool to identify priority projects are in the table below that shows impacts and projected timelines of various projects most of which could potentially be bundled up in the next Energy Savings Performance Contracting – (ESPC) project:

Table 4.8: Decarbonization Strategy Summary

Project Type	Project Count	Emissions Savings (MTCO _{2e})	Timeline
Replace a natural gas boiler with a Heat Pump Rooftop Unit	1	12	Mid-term: Complete projects by 2035.
Replace Natural Gas Boilers with Air to Water Heat Pumps	6	246	Short to Mid-Term: Complete projects during major renovations by 2035.
Replace Gas Boilers with Hybrid Heat Pumps	7	59	Short to Mid-Term: Complete projects during major renovations by 2035.
Replace an electric resistance Domestic Hot Water heater with a hybrid heat pump water heater	1	9	Mid-Term: Complete projects during major renovations by 2035.
Replace Fluorescent lights with LED fixtures	8	54	Short-term: Complete projects by 2030.
Retro-commissioning	7	72	Short to Mid-Term: Complete projects during major renovations by 2035.

Project Type	Project Count	Emissions Savings (MTCO2e)	Timeline
HVAC unit upgrades (deferred): Cooling Towers Chillers Air Handler Unit and split systems	9	TBD*	Short-term: Complete projects by 2030.
Lighting Controls	4	114	Short-term: Complete projects by 2026.
HVAC Unit Upgrades	9	9	Short-term: Complete projects by 2026.
Rooftop Photovoltaic Solar systems (PV systems)	8	606	Short-term: Complete projects by 2030.
Building Management System	1	94	Short-term: Complete projects by 2026.
Commissioning Activities for the Energy Conservation Measures (lighting, HVAC, and building management systems, and the PV installation	1	TBD*	Short-term: Complete projects by 2026.
Generators	8	TBD*	Short to Mid-Term: Complete projects during major renovations by 2035.

*TBD: To be determined.

Pilot and Priority Projects

DOJ will be looking into pilot projects to implement within the first several years of decarbonization. Pilot projects may include installation of certain equipment types in order to glean lessons learned before broader implementation, or pilot projects could include efforts made to key buildings with systems due for replacement or

major renovations planned.

The prioritization criteria for implementing decarbonization measures include which labs need it most, such as which equipment is failing and needs replacement sooner rather than later as well as the those that will deliver the most savings as well as reduce the environmental impact of operations and increase resilience.

A general timeline for overall decarbonization as well as each major project type will be discussed and submitted for lab staff executives' review and approvals.

Table 4.9: Pilot and Priority Projects for Initial Implementation

Project	Description	Timeline
Heat Pump Water Heaters	To achieve electrification goals, DOJ will need to begin replacing natural gas domestic hot water heaters with electrified heat pump water heaters at Eureka and Riverside.	0-3 Years
Air-to-water heat pumps units	To achieve electrification goals, DOJ will need to begin replacing a natural gas boiler with electrified air-to-water heat pumps units at Santa Rosa.	0-3 Years
LED Lighting	Modify or retrofit existing lighting with LED fixtures at Santa Rosa, Eureka, Redding, and Ripon.	1 Year
Retro-Commissioning (RCx)	Conduct pilot retro-commissioning projects to identify and optimize building controls at Riverside, Fresno, and Ripon.	0-3 Years
Rooftop Photovoltaic Solar systems (PV systems)	Install rooftop PV systems at the Freedom, Fresno, Santa Barbara, and Eureka labs.	1 Year

Project Funding and Incentives

Cost Estimates – The department roadmap decarbonization plans (Chapter 4 – Decarbonization) imply the investments needed or planned to achieve full decarbonization of department operations. The departments' estimated required funding costs by measures are outlined in Table 4.10 below. The DGS Office of Sustainability (DGS-OS) gathers this information for reporting purposes to the state legislature as required.

Many decarbonization measures can be completed at the end of equipment life as part of a deferred maintenance program. Examples of these types of projects include heat pump water heaters and heat pump rooftop units.

Larger projects, such as converting natural gas boilers to electric air to water heat pumps, will need to be completed as capital projects. Many energy efficiency and some electrification projects can be completed through energy savings performance contract (ESPC) projects.

DOJ is looking into applicable incentive programs (federal, state, or local utilities) relevant to major project types. For now, the department is achieving funding for these projects through GS \$Mart loans.

Table 4.10: Decarbonization Cost Estimates

Project Type	Cost Estimates (\$)
HVAC_AWHP	\$15,432,419
HVAC_HP RTU	\$257,728
DHW Hybrid HP WH	\$661,117
DHW Hybrid HP WH (EFF)	\$34,078
Lighting LED	\$767,405
RCx	\$175,352
HVAC upgrades (deferred)	\$2,925,339
Lighting Controls	\$774,251
HVAC Unit Upgrades (ESPC)	\$340,285
Rooftop Photovoltaic Solar systems (PV systems) and PVs Operation and maintenance	\$3,250,000*
Building Management Systems (BMS/EMS)	\$666,334
Commissioning Activities (ESPC), Maintenance, and Measure and Verification.	\$146,699
Generators	\$4,044,152
Estimated total	\$29,475,159

*Potential Incentives 30% Investment Tax Credit (IRA) might apply.

CHAPTER 5 - WATER EFFICIENCY AND CONSERVATION

Department Mission and Water Use

California experiences the most extreme variability in yearly precipitation in the nation. In 2015, California had record low statewide mountain snowpack of only 5% of average while 2012-14 were the four driest consecutive years of statewide precipitation in the historical record. The 2017 water year (October 1, 2016-September 30, 2017) surpassed the wettest year of record (1982-83) in the Sacramento River and San Joaquin River watersheds and close to becoming the wettest year in the Tulare Basin (set in 1968-69). These potential wide swings in precipitation from one year to the next show why California must be prepared for either flood or drought in any year.

Using water wisely throughout the State is critical. It is important for all state agencies to know their water suppliers and their accompanying water shortage contingency plans as it impacts their mission and day-to-day operations. Per Governor's Executive Order B18-12, each state agency is responsible for monitoring water use and reporting baseline and annual water use for compliance with the water use reduction targets. Thus, it requires state agencies to enter their water use data into the Energy Star Portfolio Manager (ESPM). The EOs and SAM sections listed in the previous chapters help demonstrate the connection between water and energy use (the water-energy nexus), water and climate change, and water and landscaping. Further, the impact of water uses by state agencies goes beyond the scope of these EOs and SAM sections and DGS management memos as these documents do not address such related issues as water runoff from landscaping and various work processes and the potential for water pollution or the benefits of water infiltration, soil health and nutrient recycling. However, by using holistic water planning, a well-crafted water plan can not only meet all state requirements, identify potential vulnerability in water supplies, plan for potential water shortages, but also add considerable value and benefits to the organization and surrounding communities. Therefore, DOJ is creating and implementing programs that meet the governor's sustainability goals for water conservation.

These water efficiency and conservation efforts are essential for the departments' master water planning as well as helping improve the energy savings via the water/energy nexus, climate adaptation, and other ecosystem services. This

chapter describes the progress and identifies successful accomplishments, ongoing efforts, and outstanding challenges DOJ has made toward meeting the Governor's goals. The department's water usage information for its owned and leased buildings is reported monthly into the ESPM system following Executive Order B 18-12 and SAM Section 1835. Recently, these projects included installing low-flow toilets and sinks, conducting landscape retrofit, and installing reclaimed water systems to reuse cooling unit blowdown water for irrigation.

Total Purchased Water

All available water usage information for state agencies owned and leased buildings where the State pays bills that are subject to Governor's Executive Order B18-12 must be reported based on the Energy Star Portfolio Manager data.

Reporting on Total Purchased Water

The tables below include all available water usage information for the eight DOJ-owned buildings where the department pays bills that are subject to Governor's Executive Orders.

Table 5.1: Total Purchased Water

Purchased Water	2023 Quantity (Gallons)	2024 Quantity (Gallons)	2023 Cost (\$/yr.)	2024 Cost (\$/ yr.)
Potable	5,223,700	7,052,800	24,127*	32,509
Recycled Water	NO DATA	NO DATA	NO DATA	NO DATA

*The total water cost data does not include information for 2023: Santa Barbara, Fresno, and Ripon; 2024: Fresno and Ripon.

Reporting Narrative on Table 5.1: Total Purchased Water

WATER COSTS RECORDED

Each of the eight DOJ-owned lab facilities use a significant amount of water due to the unique nature of the operations in these labs. With a combined square footage of 174,108 square feet, together these forensic laboratories can consume as much as 5 to 10 times more water than a typical office.

Most of the water use reported is considered indoor use: sanitary water, lab process water, water used for sterilization, reverse osmosis (RO)/deionized (DI)

water production, and HVAC/mechanical equipment.

The 35% increase in water usage from 2023 to 2024 (Table 5.1 above) could come from multiple of factors from the lab operations and processes. For instance, Ripon lab went from an electric chiller to a water-based chiller.

Additionally, audit findings also reported that a large consumption of water in these lab locations is due to landscape irrigation. The DOJ lab sites irrigate a combined square footage of 130,311 square feet of landscape, which mainly includes turf grass which might demand up to 60% more water than drought tolerant or native plants. The department tries to conserve water by limiting outdoor water use such as only watering the grass in the summer months. But changes in landscaping sprinkler use by building maintenance staff or landscaping contracted companies might also have contributed to this increase. The challenges the department faces by having routine strategies for limiting indoor water use is in part due to the necessity of lab staff to have appropriate cool temperatures within the building and have adequate water to run important tests.

The weather could also be a contributing factor. Hotter temperatures in 2024 have led to an increase in chiller usage, which uses a closed water loop system to cool the buildings.

Planning Narrative on Table 5.1: Total Purchased Water

The Department's water management efforts are currently being concentrated on modifying each lab's mechanical cooling system (evaporative cooling). This system causes water to be lost through evaporation, drift, and blowdown. All fresh water contains naturally high mineral content concentrations, causing scale formation in the building's HVAC systems. Because of the high mineral content of the water sources at each of the labs, scale formation is not being reduced enough to decrease required blowdowns, which results in high potable water waste. Measures are being reviewed in which "blowdown" greywater captured from the building's chiller systems may be rerouted for landscape irrigation needs.

The department does not use recycled water for any purpose but is looking into implementing a reclaimed water project to irrigate the landscape where feasible. Currently, there is a water conservation project in place to replace bathroom sinks and toilets with low-flow options to conserve water which will deliver 47,000 gallons/year savings.

Reporting on Properties with Largest Purchased Water Use per Capita per Day.

Authority for a Per Capita Per Day Requirement: In 2018, Senate Bill 606 and Assembly Bill 1668 were passed to establish permanent water use restrictions throughout California. The State Water Resources Control Board finalized regulation that the residential indoor water use standard will be 55 gallons per capita daily (GPCD) until January 2025. The standard will become stronger over time, decreasing to 47 GPCD in January 2030.

Since DOJ's water use efficiency reporting is part of the commercial, industrial, and institutional (CII) category of urban water use, changes in water are more accurate when they are estimated in reference to the 2010 baseline instead of the GPCD standard for residential indoor use outlined before. This information is reported and described in Table 5.4 below.

Table 5.2 outlines the BFS labs with the largest purchased Water Use Per Capita.

Table 5.2: Properties with Largest Purchased Water Use Per Capita

Building Name	Area (sq. ft.)	Ave. Daily Building Occupants	Total 2024 Gallons	Total 2024 Irrigation in Gallons (if known)	Gallons per Capita/Day
BFS - RIVERSIDE	39,000	31	1,867,100		165
BFS - RIPON	32,000	38	3,084,900		222
BFS - FRESNO	36,007	41	1,452,500		97
BFS - REDDING	16,799	21	399,300		52
BFS - SANTA BARBARA	13,800	13	131,700		28
Total for Buildings in This Table	137,606	144	6,935,500		
Total for All Department Buildings	174,108	178	7,052,800		---
% of Totals	79%	90%	98%		---

Reporting Narrative on Table 5.2: Properties with Largest Water Use Per Capita

PER CAPITA DAY ACHIEVED in four out of the 8 DOJ BFS labs.

Estimates of the per capita per day water use is not appropriate for the DOJ laboratory facilities since they are not directly correlated to the buildings' occupancy but the department's missional operations and landscape areas. All DOJ labs need to stay operational 24/7 while providing essential forensic research and analysis. Therefore, it is critical that the laboratories' heating and cooling system run consistently and effectively to guarantee the environmental conditions for operating lab equipment and perform standard procedures which high demand water usage as well as for managing, preserving, and storing samples and evidence. Additionally, the labs with Largest Purchased Water Use are also the largest facilities and have the most extensive landscaping which requires more watering.

Planning Narrative on Table 5.2: Properties with Largest Water Use Per Capita

DOJ's plan for reducing water use for the Riverside, Ripon, Fresno, and Redding locations is to retrofit their landscape and remove turf grass. The next steps are to work with DGS and DWR on developing a design plan as well as to have irrigation water metered separately.

Reporting on Properties with Largest Landscape Area Irrigated with Purchased Water

Table 5.3: Properties with Largest Landscape Area Irrigated with Purchased Water

Facility Name	Landscape Area (ft²)
BFS-RIVERSIDE	38,362
BFS-FRESNO	34,800
BFS-REDDING	26,774
BFS-RIPON	24,868
BFS-SANTA ROSA	2,824
Total Landscaping area for Facilities in This Table	127,628
Total Landscaping for All Department Facilities	130,311
% of Totals that is large landscape	98 %

Reporting Narrative on Table 5.3: Properties with Largest Landscape Area Using Purchased Water

For those facilities with the largest landscape area, the square footage of landscaping that is turf grass irrigated by potable water is unknown at this time. In 2023, the department had a feasibility study done for the labs with the largest landscape area. It was determined that the current landscape demand was too great to make recycled water for irrigation feasible. The department is looking into

other measures for decreasing its water demand such as working with DWR to conduct a pilot study on retrofitting the landscape based on lab feedback.

Planning Narrative on Table 5.3: Properties with Largest Landscape Area Irrigated with Purchased Water

The department plans on coming up with strategies for transforming the current landscape into alternative types of living landscape while considering the lab staff feedback. Native bunch grasses, shrubs, and trees that may replace turf grasses are being looked into.

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

Table 5.4: Department-Wide Purchased Water Use Trends

Year	Total Occupancy /year	Total Amount Used (Gallons/year)	Percent Change From 2010 Baseline	Gallons per person per day
Baseline Year 2010	135	5,940,700	0%	121
2020	178	5,540,000	-7%	85
2021	200	5,386,400	-9%	74
2022	195	6,134,000	3%	86
2023	178	5,223,700	-12%	80
2024	178	7,052,800	19%	108
2025 Goal	225	4,709,000	-21%	55

Reporting Narrative on Table 5.4: Purchased Water Use Trends from 2010 to Present

The Department has been steadily decreasing its per capita water usage from 2020 to 2021, spiking in 2022 followed by a 12% decrease. However, we observed an increase in 2024. The return to workplace from a telework centered schedule most likely caused this increase as more personnel are now occupying the labs on a daily basis. The Department has not had many significant challenges in meeting the mandatory water reductions for purchased water. The strategies the Department has been using to meet the reduction goals is to reduce irrigation during the winter months and explore the option of installing a reclaimed water system where applicable. Although the Dolphin filtering systems were installed, the labs are planning on reusing the cooling tower blowdown water for landscape irrigation. DOJ is currently working with DGS and BKF on installing a reclaimed water system at each site where there is currently a Dolphin system. Water conservation plans had estimated that by having installed two filtration systems and water softeners, these labs can run up to seven cycles and save over 100,000 gallons of water per month.

DOJ is currently in the process of exploring other options for reclaimed water. A feasibility report was drafted by BKF for each of the four labs utilizing a Dolphin system as of September 2023. The water savings were discovered not to be as high as DOJ had anticipated. Subsequently, the project cost was too high for such a low return on investment and the reclaimed water project was put on hold until grant funding could be secured.

Planning Narrative on Table 5.4: Purchased Water Use Trends from 2010 to Present

Since the department's water use is increasing over time, the following strategies are what the department will use in achieving water conservation. Retrofitting the landscape, removing turf grass, and installing water conservation infrastructure such as non-water-based chiller system upgrades and smart irrigation systems. Using the water use goal listed in Table 5.4, the department will look into the above strategies to achieve this goal.

Reporting on Table 5.5 Total Purchased Water Reductions from 2010 to Present

Table 5.5: Total Purchased Water Reductions Achieved in Gallons

Purchased Water Use	2023 Totals (Gallons)	2024 Totals (Gallons)
2010 Baseline totals (Gallons) 5,940,700	5,223,700	7,052,800
+ or -Gallons Compared to Baseline Year	-717,000	+1,112 100
Department- Wide Reduction as a % from 2010 baseline	-12%	19%

Reporting Narrative on Table 5.5: Purchased Water Use Trends from 2010 to Present

The department has not yet achieved the mandatory purchase water use reduction goals mainly due to the laboratories' heating and cooling systems which demand water to maintain the required operational conditions for lab equipment and standard procedures. Additional challenges are due to the frequent chiller upgrades from less electric demanding equipment to water-based cooling. In 2024 the Ripon lab installed a new chiller which uses water-based cooling.

Additionally, there is limited funding to upgrade the landscape irrigation systems at the Riverside, Ripon, Fresno, and Redding labs, which have the Largest Purchased Water Use due to the landscaping watering demands. The challenges are ongoing and the record-high temperatures in the summer of 2024 may further increased the challenges the department faces to achieving the mandated reduction goals.

Planning Narrative on Table 5.5: Purchased Water Use Trends from 2010 to Present

The department will look into strategies and timeframes for reaching these mandated reduction goals. The next steps are to come up with a plan within the year 2026 that will include having separate irrigation water meters for indoor and outdoor water, which will further help identify the opportunities and challenges. Sustainability will search for funding opportunities for the landscaping and irrigation systems upgrades as needed.

Department Indoor Water Use

Fixtures and Water Using Appliances Needs Inventories

Reporting on Building Indoor Water Fixtures and Water Using Appliances Needs

Table 5.6: Building Indoor Water Fixtures and Water Using Appliances Needs Inventories Summary

# of toilets to be replaced	# of urinals to be replaced	# of faucet aerators to be replaced	# of showerheads to be replaced *	# of clothes washers to be replaced	# of garbage disposals to be replaced.	# of pre-rinse valves to be replaced
32	13	224	0	0	0	0

Reporting Narrative on Table 5.6: Indoor Building Water Fixtures and Water Using Appliances Needs

Most projects completed by DOJ facilities are maintenance inspections, repairs, or replacements requested by the location staff. These projects are completed on an as-needed basis. The Department is in the process of replacing water fixtures with more efficient models such as Hand's free WC Operations (43 urinals/toilets, and 42 sinks) and 182 Hand's free Lab Sink Fixtures.

The Department plans on having the upgrades listed above completed by 2025. All eight labs will be retrofitted by 2026 with high efficiency touchless systems to minimize the transmission of germs and reduce water waste. Water efficiency uses evaluations have been conducted for each site as of December 2022 by a DGS approved contractor, Centrica. Water use data pertaining to showers, clothes washers, garbage disposals, and pre-rinse valves is unknown at this time because this equipment was not evaluated as part of the fixture upgrade project.

Planning Narrative on Table 5.6: Indoor Building Water Fixtures and Water Using Appliances Needs

Per the Sustainability Unit, a water and energy audit was conducted for each lab in 2022 to assess which indoor fixtures need to be upgraded. This project is underway and anticipated completion is August 2026.

Water Conservation and Water Efficiency Projects for Purchased Water

Reporting on Current Indoor Water Efficiency Projects 2020- Present

Table 5.7: 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
2022	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
2023	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
2024	47,010 (current estimate)	IN PROGRESS	\$318 (current estimate)

Reporting Narrative on Table 5.7 Current Indoor Water Efficiency Projects 2020- Present

NO COMPLETED PROJECTS

The Department labs' restrooms remain as a typical design of the early 2000's with low flow fixtures but lacking any touchless/hand free operation to minimize the transmission of germs that has become the standard. The objectives for water conservation of the current indoor water efficiency project in progress is to upgrade these systems to minimize the health risks while reducing water waste by replacing toilets, sinks and urinals with more efficient low-flow options. The challenge the department is facing is securing funding for the project as this takes time for approval to be granted.

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

Planning Outline PO5:a: Building Indoor Water Efficiency Priority Projects for the Next 5 Years

Building Name	Type of Project	Est Water Savings	Est. Start Date
BFS–RIVERSIDE	Wash Closet Upgrades	6,000 (gal)	2025
BFS–REDDING	Wash Closet Upgrades	6,000 (gal)	2025
BFS–RIPON	Wash Closet Upgrades	6,000 (gal)	2025
BFS–FRESNO	Wash Closet Upgrades	6,000 (gal)	2025
BFS–FREEDOM	Wash Closet Upgrades	6,000 (gal)	2025
BFS–SANTA ROSA	Wash Closet Upgrades	6,000 (gal)	2025
BFS–EUREKA	Wash Closet Upgrades	6,000 (gal)	2025

Planning Narrative for PO5a: Future Indoor Water Efficiency - Building Priority Projects

The Department has not yet reached its mandatory indoor building water efficiency reduction goals given in [Executive Order B-37-16](#), but the proposed projects in Table 5.6 will help achieve them. The installation of low-flow toilets, urinals, and sinks will not only reduce indoor water usage for the labs but also help reduce the transmission of germs. Unfortunately, these projects will not contribute to meeting other sustainability goals and plans for resilience such as heat island reduction, natural infrastructure, and water recycling nor will they have any additional water savings beyond mandated savings. Nevertheless, these goals will be pursued in other future projects.

General Water Management

Reporting Narrative on General Water Management BMP

GENERAL WATER MANAGEMENT BEST MANAGEMENT PRACTICES (BMPS) ACHIEVED

Planning Narrative on General Water Management BMP

GENERAL WATER MANAGEMENT BMP ACHIEVED

Leak Detection and Repair

Reporting Narrative on Leak Detection and Repair BMP

LEAK DETECTION AND REPAIR BMP ACHIEVED

Planning Narrative on Leak Detection and Repair BMP

LEAK DETECTION AND REPAIR BMP ACHIEVED

Kitchen Water Conservation

Reporting Narrative on Kitchen Water Conservation BMPs, Fixtures

KITCHEN WATER CONSERVATION BMP ACHIEVED

Planning Narrative on Kitchen Water Conservation BMPs, Fixtures

KITCHEN WATER CONSERVATION BMP ACHIEVED

Laundry Facilities Water Conservation

Reporting Narrative on Laundry Facilities Water Conservation BMPS

LAUNDRY FACILITIES BMPS ACHIEVED.

The Fresno and Eureka labs are the only buildings with laundry facilities and BMPS are achieved.

Planning Narrative on Laundry Facilities Water Conservation BMPS

LAUNDRY FACILITIES BMPS ACHIEVED

Department Total Nonpurchased Water Excluding Water Reuse or Recycling

State agencies may use water from sources other than a 3rd party water supplier. Sources of non-purchased water may include a department's domestic wells, or surface water pulled from rivers, lakes, or irrigation canals. Sometimes the surface water passes through, and the water returns to its source. Regardless of whether water returns to its source, the fact remains that Departments rely on the availability of this water for a variety of purposes, either mission related, such as water for wildlife or for day-to-day operations such as dust control.

Reporting on Total Nonpurchased Water Excluding Water Reuse or Recycling

Table 5.8: Department-Wide Nonpurchased 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	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED
2023	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED
2024	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED	NON-PURCHASED WATER NOT USED

Reporting Narrative for Table 5.8: Nonpurchased Water Excluding Water Reuse or Recycling

NON-PURCHASED WATER NOT USED.

Planning Narrative on Table 5.8: Nonpurchased Water Excluding Water Reuse or Recycling

NON-PURCHASED WATER NOT USED.

Reporting Narrative for Nonpurchased Water Use Trends Excluding Water Reuse or Recycling

NON-PURCHASED WATER NOT USED.

Planning Narrative on Nonpurchased Water Unavailability.

NON-PURCHASED WATER NOT USED.

Department Water Energy Nexus Reporting

Water is a critical resource required for electric thermal power generation, both as feed water for boilers and as cooling water for condensers for steam systems, regardless of fuel type. Thus, water requirements for electricity generation compete with other uses for and users of energy. Savings of either water or energy will improve water efficiency and conservation. This section focuses on the water side of the water energy nexus.

Boiler water conservation and efficiency is best achieved by installing dedicated meters for water intake and by increasing the number of times water can be recirculated. This reduces the amount of water needed to replace the water lost to evaporation and water lost due to the increasing concentration of impurities. Over time, the concentration of dissolved solids from the makeup water increases in the boiler as pure water off gases as steam. Due to this increase in dissolved solids, corrosion, and scale increase. The technical term for the relationship between the level of dissolved solids in the boiler and the dissolved solids in the feed water is "Cycles of concentration." Installing water treatment will help increase the number of cycles of concentration, reducing the amount of makeup water. Additionally, water treatment allows water that cannot be used as makeup water to become available for various types of water reuse. Furthermore, water

treatment makes water suitable for different kinds of water reuse when it cannot be used as makeup water. The following sections address these aspects of water conservation and efficiency with respect to the Department's boilers.

Reporting on Annual Amount of Boiler Makeup Water Used

Table 5.9: Annual Amount of Boiler Makeup Water Used

Boiler Water Use	Year 2023	Year 2024
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

Reporting Narrative on Table 5.9: Boiler Water Reuse Opportunities

The Department currently does not track the annual boiler water usage for the eight labs. The Santa Rosa, Santa Barbara, Fresno, and Ripon labs all recirculate their boiler water, but the amount is currently unknown because there are no meters installed for this purpose. Some water quality challenges are associated with this water, such as high silica at the Fresno and Ripon labs, according to the water quality analysis provided by EVAPCO when doing maintenance to the filtering systems. If DOJ decides to look into reusing boiler water for alternative purposes, the uses might be for irrigation like chiller blowdown water. DOJ will review possible reuse by 2026.

Planning Narrative on Table 5.9: Boiler Water Reuse Opportunities

Currently the department does not have a plan for reusing available boiler water. For the Ripon and Fresno labs, the water quality challenges associated with this water is high silica which needs to be filtered out many times to reduce water

waste or provide clean water for other purposes. The department will look into the feasibility of boiler wastewater treatment and reuse.

Reporting Narrative for Boiler Efficiency

The most potential for boiler water use efficiencies comes from the potential to increase cycles of concentration, and the potential to treat discharge water to a quality for reuse. This section examines the Department's opportunities to increase boiler water use efficiency using water treatment to achieve both increased number of cycles of concentration and reusing discharge water.

The Department has not yet achieved maximum boiler efficiencies by installing meters and maximizing the numbers of cycles of concentration. The Department plans to enhance efficiency by upgrading the boilers to more water efficient models. Many of DOJ's labs were built with two boilers and if one fails, the other can take its place. Most of the time, only one boiler runs at a time while the other is being repaired. These boilers are sometimes difficult and costly to replace and are only done on an as needed basis.

Planning Narrative for Boiler Efficiency

For the Fresno, Ripon, and Santa Barbara labs the amount of water that is potentially available for reuse annually is 250, 50, and 20 gal. respectively.

At the Santa Rosa and Redding labs this equipment operates in a Closed loop, there are no cycles.

Many labs reported that their boilers are outdated and need to be replaced. In The department was considering replacing six boilers as part of their energy efficiency project but these measures were pulled out of the SOW due to budget restrictions.

DOJ hopes to pursue more grant opportunities in the future to fund more water conservation projects and replace the natural gas boilers with more efficient air-to-water heat pumps and heat pump units that will reduce water usage and operational heating costs.

Reporting on Cooling Towers' Water Use

Cooling towers chill buildings by evaporating water. A typical cooling tower

pumps warm water from the heat source (such as an air-conditioning system or process equipment) to the top of a cooling tower and is either sprayed or dripped through fill material called “wet decking”. Air that is blown through the falling water evaporates and chills the water. The cooling tower loses water through three processes:

1. Evaporation through the top of the tower, which amounts to about three gallons per minute in a 100-ton (350 kW) chiller.
2. Drift Losses, where the airflow carries droplets of water (mist) out of the tower.
3. Blowdown, the regular removal of water from the bottom of the cooling tower to lower concentrations of dissolved minerals and other contaminants. It is necessary to add makeup water to cooling towers to compensate for these losses.

The higher the acceptable “concentration ratio”, or level of dissolved minerals in the blowdown water, the greater the water savings, as the cooling towers need less makeup water. Total water use of the cooling tower is the relationship between make-up water, evaporation, and blowdown rates. Each of the sections below focus on how effectively and efficiently the Department maximizes its water use and reuse in cooling towers, however, there is not a current track of how much.

Table 5.10: Cooling Tower Water Use

Cooling Tower Water Use	Year 2023	Year 2024
Amount of Water Used for Make-up (Gallons)	NO DATA	1,988,200
Totals for all Facilities	NO DATA	NO DATA

Reporting Narrative on Table 5.10: Cooling Tower Water Use.

In 2015, DOJ was awarded a \$305,000 grant to install side-stream sand filtration systems (Dolphin Systems), water softener tanks and pulse-powered HVAC water treatment systems at selected lab locations to help save water and increase the potential to reclaim water for irrigation use. The installation of these Dolphin systems is complete for the Ripon, Redding, Riverside, and Fresno locations.

The Department tracks annual cooling tower water usage via maintenance contract for the Dolphin system at the Redding, Ripon, Riverside and Fresno labs.

According to Fresno lab water survey it can be estimated that it uses 45,000 gallons of water annually for cooling tower reuse/recirculation. Going forward, the Department will work with building engineers on tracking and trending this data for all the labs.

Planning Narrative on Table 5.10: Cooling Tower Water Use.

COOLING TOWER WATER REUSE ACHIEVED.

Reporting Narrative on Cooling Tower Water Reuse.

COOLING TOWER WATER REUSE ACHIEVED

Planning Narrative on Cooling Tower Water reuse.

COOLING TOWER WATER REUSE ACHIEVED

Reporting Narrative on Cooling Tower Efficiency

COOLING TOWERS WATER USE EFFICIENCY ACHIEVED

Planning Narrative for Cooling Tower Efficiency

COOLING TOWERS WATER USE EFFICIENCY ACHIEVED

Reporting on Boiler Needs Inventories Summary

This section is concerned with the water portion of the Water/energy nexus found in all boiler systems. Therefore, the aspects of boiler management that depend on water are covered in the boiler needs inventory.

Table 5.11: Summary of 2024 Boiler Needs Inventory

Number of meters to purchase and install	Water Treatment to Install, Repair, or Upgrade	Other
5	3	5 upgrades
Totals 5	3	5

Reporting Narrative on Table 5.11: Boiler Needs

All boilers with meters and water treatment installed already have the proper inventories in place according to survey results. Five of eight labs reported needing to purchase meters to install for better tracking water use. Three of eight labs reported needing water treatment, installation, and repair.

Planning Narrative on Table 5.11: Boiler Needs

All labs required boilers to be replaced with high efficiency models. Priority will be given to the DOJ's largest labs, the Fresno, Riverside and Ripon labs as well as the Santa Rosa lab due to critical issues. These projects will help push the Department in the right direction for best management practices.

Reporting on Cooling Systems Equipment Needs Inventory Summary

Table 5.12: Summary of 2024 Cooling System Needs Inventory

Equipment Needed	Equipment Totals for all Facilities
Meters	2
Water Treatment	2
Other	7 (4 Chiller and 3 cooling tower upgrades)

Reporting Narrative for Table 5.12: Cooling Systems Needs

The Fresno lab chiller was replaced in 2020. According to recent survey results, one lab needs two meters, two labs receive water treatment monthly, and four labs have reported needing new chillers/cooling towers. The labs deferred

maintenance plan (2025-2030) includes replacing one chiller for Santa Rosa and Ripon, two for Riverside, two cooling towers for Fresno, one for Riverside, the Pre-Cooler for the Chiller for the Redding lab, and two split systems for Redding and Riverside.

Planning Narrative for Table 5.12: Cooling Systems Needs

PLANNED REPLACEMENT SCHEDULE IN PLACE. However, the items in the inventory needs have been deferred due to budget constraints.

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

Table 5.13: 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	0	0
2022	NO DATA	0	0
2023	NO DATA	0	0
2024	NO DATA	0	1 (SR)

Reporting Narrative on Table 5.13: Efficiency Projects for Boilers and Cooling Systems

Of the projects in progress, the challenges the department is currently facing in bringing the projects to completion is due to a lack of funding. The department is currently going through a Year Expenditure Freeze (per Budget Letter BL 23-27) that restricts spending for only mission critical goods and services. The next step for developing a plan is to reach out to DGS for assistance to explore alternatives and secure funding.

Reporting Narrative for BMPs for Building Boilers and Cooling Systems

Boilers and Cooling Towers Best Management Practices are performed as part of the building equipment maintenance in the BFS labs by contractors and the DGS engineers on a monthly or as needed basis, which include the following practices:

- Check steam traps and steam lines for leaks.

- Boiler tuning program.
- Check insulation.
- Routine inspections and maintenance programs on condensate pumps. Regularly inspect both the water side and fire side of the boiler. Regularly inspect both the water side and fire side of the boiler.
- clean the tube surfaces to ensure optimal heat transfer thereby maximizing 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.

Planning Narrative for BMPs for Building Boilers and Cooling Systems

For the areas reporting no data, the department will look into the possibility of installing meters for better tracking water savings annually that would help improve BMP performance. The Estimated implementation Date for this BMP procedure is end of 2027.

The department's challenges to implement Building Boilers and Cooling Systems BMPs is that these systems are very costly, and funding is rarely available.

Department Outdoor Water Use:

Reporting on outdoor water use is important because landscaping typically uses 50% or more of a department's total water use. The department's outdoor water use is determined by the amount and type of landscaping, amount and type of irrigation hardware, irrigation operations, best management practices for landscaping and irrigation, use of meters and sub-meters, appropriate pressure regulation and installation of back flow prevention.

Achieving water conservation and water efficiency for outdoor water use frequently requires an elevated level of expertise and certified staff for both irrigation and landscaping.

Components of a successful water conservation and water efficiency program for outdoor water use includes:

- Irrigation and Irrigation Hardware
- Efficient irrigation systems
- Pressure regulation
- Irrigation sensors

- Backflow prevention
- Flow sensing (Model Water Efficient Landscape Ordinance - MWELo requirement for landscapes >5000 sq. ft.)

Reporting on Outdoor Irrigation Hardware Inventory

Table 5.14 below shows the Department's outdoor irrigation hardware needs inventory and whether any of these items need replacement.

Table 5.14: Summary of 2024 Outdoor Irrigation Hardware Needs Inventory

Irrigation Hardware Type	Total Hardware Needed
Separate meters or sub-meters	6
Irrigation controllers required with weather or soil moisture adjustment and flow sensing capabilities	6
Backflow Prevention devices	7
Flow sensors to be purchased and installed	6
Automatic rain shut-off devices	16
New pressure regulators	7
New hydrozone (s)	6
New valves	8
Filter assemblies	7
Drip irrigation emitters	52
Booster pumps	10
Rotary nozzles or other high efficiency nozzles	53

Reporting Narrative for Table 5.14: Outdoor Irrigation Hardware Needs

DOJ sustainability Unit obtained the data directly from the labs. All labs have provided the results above hardware needs. To collect this data, the labs had to contact the party responsible for collecting the data either from the landscape

contractor or DGS engineer onsite.

Planning Narrative for Table 5.14: Outdoor Irrigation Hardware Needs

Outdoor Irrigation Hardware Needs projects are performed on an as-needed basis and irrigation equipment is only replaced when it malfunctions. The department doesn't currently have the funds and doesn't want to invest in new irrigation systems when it expects to install drought resistant landscaping, which may render certain irrigation improvements unnecessary. Therefore, there is no estimated timeframe for the department to purchase and install the irrigation hardware upgrades identified in table 5.14.

Reporting on Outdoor Irrigation Hardware Water Efficiency Projects

Table 5.15: 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
2022	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
2023	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
2024	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS

Planning Narrative for Table 5.15: Irrigation Hardware Water Efficiency Projects

Assessment reports from BKF engineers, recommended the irrigation system at the BFS labs to be completely replaced with new weather-based controller, new backflow preventer at existing separate irrigation water meter, new mainline and laterals, new control valves, and new drip lines and bubblers for existing and new trees.

Irrigation Hardware Water Efficiency Projects are considered in the reclaimed water project. The next steps are to design plans to identify the lowest-cost implementation solution. Funding opportunities would be searched to implement

smart irrigation systems at the labs with Water Sense labeled (EPA certified) water efficient hardware products.

Reporting Narrative on Irrigation Hardware Maintenance BMPs

The Santa Barbara, Fresno, and Santa Rosa BFS labs report Installing check valves, and swing joints and replacing nozzles as needed by landscaping contractors and DGS staff as part of the regular irrigation hardware maintenance BMPs. Irrigation Hardware Maintenance. Currently there is no need to install faucet timers for hose or hand irrigation because these are only turned on when needed and attended. Installing shut-off nozzles or quick-couplers for all hoses has not been considered because of the low of frequency use of these watering devices.

Planning Narrative on Irrigation Hardware Maintenance BMPs

DOJ currently does not have a plan to adjust these contracts to reflect BMPs but will look into this in the near future.

Reporting on Living Landscape Inventory

Far from being just an aesthetic or ornamental feature, landscaping plays a critical role around public buildings and facilities. From providing safety and security, to reducing local heat islands, suppressing dust, reducing water runoff, maintaining soil health, aiding in water filtration and nutrient recycling, landscaping around public buildings is essential. Further, landscaping in public places frequently surrounds historic places and public memorials as well as provides pleasant public gathering spaces. The health and proper maintenance of these landscapes is vital to the physical wellbeing of California's people as well as to its social, cultural, political, and historical life.

Additionally, the many vital ecosystem functions carried out by living public landscaping are critical in helping California meet its goals for GHG reduction, climate adaptation, water and energy efficiency, and water conservation. Urban forests are vital to improve site conditions for occupants and visitors to buildings and the surrounding community.

The Model Water Efficient Landscape Ordinance (MWELo) regulates water efficiency requirements for both new construction and retrofitted landscapes. [Title 24, Part 11, Chapters 4 and 5 of the CalGreen Building Code](#) also make reference to the MWELo. Water-efficient landscaping ordinances aim to enhance the built environment's environmental conditions while simultaneously increasing water

efficiency. Beyond aesthetics, landscaping should be appreciated because it restores habitat that has been lost to development and offers numerous other benefits, including enhancing public health and quality of life, reducing the effects of climate change, conserving natural resources, and increasing property values.

Table 5.16: All Facilities With > 500 sq. ft. of Living Landscape Inventory

Facilities with Landscape >500 Sq.	Total Turf (sq. ft.)	Number Of Historic Sites or Memorials	MWELO Landscape Area (sq. ft.)	Climate Appropriate Landscape Area (sq. ft.)	Groundwater Basin Name	Irrigation Source is Groundwater (Yes or No)	Irrigation source is Surface Water (Yes or No)	Irrigation source is Re-use or Recycled Water
BFS–REDDING	26,774	0	0	26,774	Redding Area - Enterprise	Yes	Yes	No
BFS–RIPON	24,868	0	0	24,868	SAN JOAQUIN VALLEY - EASTERN SAN JOAQUIN	Yes	No	No
BFS–FRESNO	34,800	0	0	34,800	SAN JOAQUIN VALLEY - KINGS	Yes	No	No
BFS–FREEDOM	913	0	0	913	Pajarao Valley	Yes	No	No
BFS–SANTA ROSA	2,824	0	0	2,824	Santa Rosa Valley - Santa Rosa Plain	No	Yes	No

Facilities with Landscape >500 Sq.	Total Turf (sq. ft.)	Number Of Historic Sites or Memorials	MWELO Landscape Area (sq. ft.)	Climate Appropriate Landscape Area (sq. ft.)	Groundwater Basin Name	Irrigation Source is Groundwater (Yes or No)	Irrigation source is Surface Water (Yes or No)	Irrigation source is Re-use or Recycled Water
BFS–EUREKA	550	0	0	550	Eureka Plain	Yes	No	No
BFS–RIVERSIDE	38,362	0	0	38,362	Upper Santa Ana Valley - Chino	No	Yes	No
BFS–SANTA BARBARA	1,220	0	0	1,220	CORRALITOS - PAJARO VALLEY	Yes	Yes	No

MWELO: Model Water Efficient Landscape Ordinance. -

Reporting Narrative on Table 5.16: Living Landscape Inventory

The Department does not have any historical features or designated memorials on lab landscape. The majority of the landscaping at DOJ-owned locations contains living turf grass and depending on the work involved, may require city permits to change the landscape features. These locations are in an urban setting with a variety of shrubs, trees, and other foliage that are irrigated using drip systems. In 2015, the labs had a water survey conducted in regard to their landscaping needs. The conclusion of the survey was a recommendation to remove all grass turf and contour the landscape for proper rain-water drainage. The Freedom, Santa Rosa, Eureka, and Santa Barbara labs completed this and replaced their existing drip irrigation system with point source irrigation. However, another assessment needs to be completed to assess Model Water Efficient Landscape Ordinance (MWELo) standards and climate appropriate plants.

The Department has made its living landscape choices for both drought and climate adaptation by reducing water usage during the winter months and following water suppliers' recommendations.

The Department has little authority over the landscaping options at leased facilities, however when searching for a new location, the facilities management unit will ensure that a living landscape and or drought tolerant landscape is considered.

Reporting on Living Landscape Upgrades for the Next 5 Years

Planning Outline PO5:b: Planned Projects for Living Landscape Upgrades for the Next 5 Years

Landscape >500Sq. ft.) Facility Name	Replace Turf (Sq. ft.)	MWELO landscape area Upgrade (sq. ft.)	Climate appropriate landscape Upgrade area (sq. ft.)	Date for Achieving Upgrades
BFS–RIVERSIDE	38,362	NO DATA	NO DATA	TBD
BFS–REDDING	26,774	NO DATA	NO DATA	TBD
BFS–RIPON	24,868	NO DATA	NO DATA	TBD
BFS–FRESNO	34,800	NO DATA	NO DATA	TBD
BFS–FREEDOM	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS	TBD
BFS–SANTA ROSA	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
BFS–EUREKA	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS
BFS–SANTA BARBARA	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS	NO CURRENT PROJECTS

Planning Narrative on PO5.b Living Landscape Upgrades for the Next 5 Years

The Department has no data indicating whether or not it has achieved MWELO standards for its living landscape but plans on having an assessment completed by 2026 to further reduce the Department’s water usage. DOJ plans to retrofit all turf grass into native groundcover in the future.

The Department plans to reassess the landscape irrigation systems at DOJ-owned locations by 2025 with the goal of furthering water conservation once funding is

available. The Fresno, Ripon, Redding, and Riverside labs will have the turf grass retrofitted with native drought tolerant landscape following the plant species suggestions provided by the BKF assessments in 2023 for the Redding, Riverside, Ripon, and Fresno Labs' landscapes. These projects are part of the reclaimed water project to reuse chiller blowdown water for irrigation purposes which are estimated to take place over the next five years and will help advancing DOJ towards MWELO compliance.

Planning Narrative for Remaining non MWELO Compliant Living Landscape Upgrades

According to the data from the table above in PO4:c, the remaining square feet of landscaping that will still need to be converted to MWELO or climate appropriate landscaping is unknown at this time. Until a proper survey is conducted, the Department anticipates that all landscapes will need to be converted to achieve this goal. The next steps are to develop a plan by 2027.

The Department had no completed compliant living landscape or climate appropriate landscaping between 2022 and 2024 for the labs. In 2021, a reclaimed water project was initiated for the Redding, Ripon, Riverside, and Fresno labs through DGS and BKF for the purpose of reclaiming chiller blowdown water released by the Dolphin Systems to use for irrigating the landscape. This project includes retrofitting the lab landscape to include more drought tolerant plants as well as irrigation systems upgrades. A feasibility report was completed as of 2023 and final project scope and cost were determined not to be feasible.

Reporting on Living Landscape Water Efficiency Projects 2022 – Present

Table 5.17: Summary of Completed Living Landscaping Water Efficiency Projects

Year Funded	Est Annual Water Savings (Gallons)	Sum of MWELO Landscape installed (sq. ft.)	Sum of Climate Appropriate Landscape Installed (sq. ft.)
2022	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS
2023	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS
2024	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS	NO COMPLETED PROJECTS

Reporting Narrative on Living Landscape BMPs

Some Living Landscape BMPs are performed as part of the building regular maintenance in the BFS labs by contractors and the DGS engineers on a weekly, monthly, seasonal or as needed basis, which include the practices outlined below followed by the labs that have implemented them:

- Prioritize and assign value to plants within a landscape: Santa Barbara and Fresno.
- During drought or other water shortages, give trees and large shrubs highest priority for survival: Santa Barbara, Freedom, Fresno, Santa Rosa, and Redding.
- Continue to water trees and shrubs as needed: Ripon, Santa Barbara, Freedom, Fresno, Santa Rosa, and Redding.
- Refresh mulch as needed. All bare soil must be covered by a minimum of 3 inches of mulch: Santa Barbara, Freedom, and Santa Rosa.
- Adjust the irrigation schedule for seasonal changes: Ripon, Santa Barbara, Freedom, Fresno, Santa Rosa, and Redding.
- Test irrigation system monthly to check for leaks and misalignment, and other malfunctions. Repair immediately with the correct parts. Adjust irrigation systems as needed: Ripon, Santa Barbara, Freedom, Fresno, and Riverside.
- Water early in the morning or in the evening when wind and evaporation are lowest. Never water between 10am and 6pm: Ripon, Santa Barbara, Freedom, Fresno, Riverside, Santa Rosa, and Redding.
- Prevent runoff! Make sure sprinklers are directing water to only landscape areas, avoiding hardscapes such as parking lots, sidewalks, or other paved areas. No irrigation water should ever be permitted to leave the site: Ripon, Santa Barbara, Freedom, Fresno, Riverside, Santa Rosa, and Redding.
- : [Use WUCOLS to find plant water use requirements and only water landscapes according to the plant water needs](#): Ripon, Santa Barbara, Freedom, and Fresno,
- Plant species native to the climate zone: Ripon, Santa Barbara, Fresno, Santa Rosa, and Eureka.
- Use bio-swales and other forms of rainwater capture to keep water onsite:

None.

- Incorporate plantings for pollinators: Santa Barbara and Eureka.
- 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 1000 square feet to a depth of six inches unless contradicted by a soil test: Santa Barbara, Freedom, and Fresno.
- Fix leaks immediately: Ripon, Santa Barbara, Freedom, Fresno, Riverside, Santa Rosa, and Redding.

Planning Narrative on Living Landscape BMPs

There are challenges for achieving living landscape BMP procedures at the BFS labs. The DOJ Sustainability Unit will look into establishing the recommended procedures for Living Landscape BMP's and the next steps involve meeting with the facilities team, the contractors, and the DGS engineers at the labs to coordinate efforts.

Reporting on Large Living Landscape Inventory (>20,000 sq. ft.)

Large landscapes exceeding 20,000 square feet have a special set of maintenance and irrigation requirements. As part of the Water Use Guidelines and Criteria, the water uses for landscape areas over 20,000 sq. ft., shall be tracked through a water budget program.

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. The water budget also:

- Establishes an efficient standard for the landscape area.
- The water budget programs use local weather measurements to adjust the irrigation schedule on a weekly, biweekly, or monthly basis.
- Requires a dedicated landscape meter or an irrigation sub-meter to track the actual landscape water use.
- Requires that the actual water use be entered into the water budget program and the program compares the water use to an efficiency standard.
- The water use tracking program helps improve irrigation scheduling and helps detect irrigation system leaks.

At initiation of the Water Budget Program, is advised to perform a landscape water audit and address any needed repairs to the irrigation system. Landscape water budget management services in California are available by landscape associations and private vendors. The landscape water manager monitors water use and makes immediate decisions regarding the irrigation schedule to maintain the landscape at or below the water budget.

The landscape water budget is calculated to be specific to each landscape and is based on local climate and plant water needs. Water use data from the local water provider or data obtained from either a dedicated landscape meters or in the case of facilities with mixed use meters, a landscape sub-meter. The large landscape water use should be included in the facilities baseline and target water use. If the landscape is served by a utility owned dedicated landscape account meter, the volume of water used should be added to the amount recorded by the utility meter serving indoor the building.

Enough landscape maintenance staff shall attend an EPA WaterSense labeled training program such that the required number of staff become certified. WaterSense labeled irrigation training programs include:

- The Irrigation Association Certified Irrigation Auditor (CLIA),
- Certified Irrigation Contractor (CIC),
- Certified Irrigation Designer (CID),
- Sonoma Marin Water Saving Partnership Qualified Water Efficient Landscaper (QWEL), and
- the California Landscape Contractor Association 's Water Management Certification Program (WMCP).

Table 5.18 describes the large landscape inventory and water budget requirements for the DOJ's BFS labs exceeding 20,000 square feet.

Table 5.18: Large Landscape Inventory (>20,000 sq. ft.) and the Required Associated [Landscape Water Budget](#) Schedule

Name of Facility Sites/Locations with > 20,000 sq. ft. of Landscaping	Landscape Area per Facility (Sq. Ft.)	Water Budget per Facility (Gallons)	EPA WaterSense or Irrigation Association Certified Staff per Facility
BFS-RIVERSIDE	38,362	138,993	0
BFS-REDDING	26,774	140,451	0
BFS-RIPON	24,868	129,157	0
BFS-FRESNO	34,800	202,070	0

Reporting on Achieving Large Living Landscape Requirements (>20,000 sq. ft.)

Large landscape water use often represents a significant percentage of a facility's water use and significant water savings can often be achieved through better irrigation scheduling or inexpensive improvements in irrigation hardware. As a part of the Water Use Guidelines and Criteria, the water use for landscape areas over 20,000 sq. ft. shall be tracked through a water budget program.

DOJ has not assessed individual labs on a water budget program. The Department will be working closely with property managers and engineers to meet water budget goals. Leased facility landscapes are managed by the property management and DOJ has little to no authority over those locations.

The table below combines several concepts including the impact of the large landscape area on the local groundwater basin when the water source is groundwater. It also covers the amount of landscaping which needs to be converted and total amount of water used in the water budget as well as the number of staff who are to be EPA Water-Sense certified.

Planning Outline PO5.c: Achieving Large Living Landscape Area Requirements (>20,000 sq. ft.)

Facility Name	Landscaping sq. ft. to be upgraded to MWELO standards	Water Budget per Facility (Gallons)	Ground Water Basin	# of staff Needing EPA WaterSense certification	Date for Achieving
BFS–RIVERSIDE	38,362	138,993	Upper Santa Ana Valley - Chino	1	TBD
BFS–REDDING	26,774	140,451	Redding Area - Enterprise	1	TBD
BFS–RIPON	24,868	129,157	SAN JOAQUIN VALLEY - EASTERN SAN JOAQUIN	1	TBD
BFS–FRESNO	34,800	202,070	SAN JOAQUIN VALLEY - KINGS	1	TBD

Planning Narrative on PO5.c: Achieving Large Living Landscape Requirements (>20,000 sq. ft.)

The department anticipates completing the necessary requirements as plan designs progress with the assistance of DGS and the Department of Water Resources (DWR) In order to determine the most cost-effective implementation and maintenance solutions that will optimize water use efficiency while achieving functional large living landscaping while preserving the ecological services and water supply.

Critically Overdrafted Groundwater Basins and Water Shortage Contingency Plans

Urban water suppliers are required to maintain Water Shortage Contingency Plans that are customized to local conditions. These plans include a staged response to water shortages and droughts lasting up to three years. When implementing the stages of the Water Shortage Contingency Plan, the water supplier requires increasingly stringent reductions in water use.

For drought planning, the [EO 37-16](#) includes four components: use water more wisely, eliminate water waste, strengthen local drought resilience and improve agricultural water use efficiency and drought planning. The California Department of Water Resources (DWR) is to strengthen the requirements for these Plans, including, the creation of common standards for each stage in the plan, and extending the drought planning from three to five years. For smaller water suppliers and rural communities not required to maintain a Water Shortage Contingency Plan, DWR works with counties to facilitate improved drought planning.

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by June 30, 2017, the formation of locally controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and sub basins. A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. For those facilities located in critical groundwater basins, state agencies are to work with the local GSA plan.

Reporting on Buildings in Critically Overdrafted Groundwater Basins

Three out of the eight laboratories (Ripon, Fresno, and Freedom) are located in areas of critical groundwater basins as it is reported in Table 5.19.

Table 5.19: Buildings in Designated Critically Overdrafted Groundwater Basins

Building Name	Basin Name	Amount of water Used 2023 (Gallons)	Amount of water Used 2024 (Gallons)
BFS-RIPON	SAN JOAQUIN VALLEY - EASTERN SAN JOAQUIN	1,739,200	3,084,900
BFS-FRESNO	SAN JOAQUIN VALLEY - KINGS	698,500	1,452,500
BFS-FREEDOM	Pajarao Valley	6,500	8,600

Reporting on Buildings with Urban Water Shortage Contingency Plans

Table 5.19: Buildings with Urban Water Shortage Contingency Plans (WSCP)

Building Name	Name of Water Supplier with Urban Water Shortage Contingency Plans	Year of Publication or Update
BFS-FRESNO	City of Fresno	2022

Reporting Narrative for Table 5.20: Urban Water Shortage Contingency Plans

The Department has one building that is currently subject to an urban water contingency plan for the City of Fresno. The Fresno lab hosts critical operations and functions including but not limited to forensic examinations across a broad range of physical evidence. Many of these examinations require the labs to use reverse osmosis water to maintain sterility of these processes. The lab also requires a constant flow of air circulation through their HVAC system which uses water to cool down the building. Water use is critical for the essential functions of the lab and reducing water use will impact these operations. The Department has taken steps to mitigate these risks and reduce its use of water in this facility by limiting the irrigation of the landscape. The Department currently does not have a plan for reducing the required percentage of water for each stage of the City of Fresno's urban water shortage contingency plan.

The Department will ensure its locations meet the water shortage contingency plans of its suppliers. Sustainability staff will reach out to Ripon and Freedom to assist in identifying the water suppliers' plans to ensure either the facility is aware of the plan, or if no plan exists, work with facilities and lab staff to ensure they have a plan. DOJ is also looking at the water systems at these locations and will work with

the onsite DGS engineers to further conserve as much water as possible.

Department's Urban Water Shortage Contingency Plan

Reporting Narrative for Department's Contingency Plan

The Department became aware of the City of Fresno's contingency plan to reduce water use from 10% to 20% in 2022. According to the Fresno lab, operations would be affected by these water reductions, as staff require more time to comply and research equipment water usage. The building's present cooling tower condenser water treatment system is connected to the Dolphin system, which requires a significant amount of water replacement to run effectively.

Planning Narrative on Department's Contingency Plan

The Department will have to research and plan for this type of event. The Fresno lab will most likely not be able to move its critical operations in the event of a prolonged water shortage from the water supplier as these functions are critical to the Central California Region as a whole. This lab is one of DOJ's largest forensics science labs. The next steps are to stay up to date on changes from the water supplier's current water contingency plan and plan accordingly.

CHAPTER 6 – FACILITIES’ CONSTRUCTION AND OPERATIONS

Department Mission and Facilities Construction and Operations

The department's core mission to enforce the law, ensure public safety, and uphold justice across the state demands complex investigations, legal proceedings, forensic analysis, and oversight of correctional facilities—directly shapes our infrastructure and resource needs. For example, energy intensive laboratories and secure data centers are essential to investigative functions, while correctional oversight requires reliable transportation and water-efficient facilities. Recognizing this, the CA DOJ is committed to reducing their environmental footprint by investigating high-efficiency systems, minimizing water consumption through smart infrastructure, and ensuring that the energy supports operational resilience without compromising public safety. The information below reflects the department's responsibility to lead by example in sustainable governance while carrying out our critical public service mission.

Building Design and Construction

New Building LEED Certification

[Executive Order B-18-12](#) and the [State Administrative Manual \(SAM\) Chapter 1815.3](#) requires that all new buildings, major renovation projects and build-to-suit leases over 10,000 square feet obtain LEED silver certification* or higher. All new buildings under 10,000 square feet shall meet applicable CalGreen Tier 1 Measures. New buildings greater than 5,000 square feet are also required to be commissioned after construction.

[SB 416](#) mandates that all new buildings and major renovation projects, larger than 10,000 square feet, are undertaken by California state agencies, and for which the project schematic design documents are initiated on or after January 1, 2024, must obtain LEED Gold or higher certification. This requirement will take effect in the 2027 Roadmap.

Table 6.1: New Building Construction since July 1, 2012

Facility Name	LEED Certification Type & Level Achieved	Commissioning Performed (Y/N)
NO NEW BUILDINGS	N/A	N/A

Reporting Narrative for Table 6.1: New Building Construction since July 1, 2021

NO NEW BUILDINGS

Planning Narrative for Table 6.1: New Building Construction since July 1, 2012

NO NEW BUILDINGS

LEED for Existing Buildings Operations and Maintenance (EBOM)

Executive Order B-18-12 and the State Administrative Manual (SAM) Chapter 1815.3, all state buildings over 50,000 square feet are required to complete LEED-EBOM certification and meet an Energy Star rating of 75 to the maximum extent cost effective. LEED EBOM certifications expire after 3 years and require recertification to ensure that sustainable operations are still in place.

DOJ has no LEED-EBOM buildings. All DOJ-owned labs are under 50,000 square feet. Therefore, the department goal is to increase sustainability efforts and to reduce annual grid-based energy purchases for existing buildings by 20 percent, compared to a 2003 calendar year baseline.

Table 6.2: Large Building LEED Certification for Existing Buildings

Number of Buildings over 50,000 sq. ft. and eligible for LEED EBOM	Number of Building over 50,000 sq. ft. that have achieved LEED EBOM	Percentage of Existing Buildings over 50,000 sq. ft. that have achieved LEED EBOM
NO BUILDINGS EXCEED 50,000 SQ.FT.	N/A	N/A

Reporting Narrative for Table 6.2: Large Building LEED Certification

NO BUILDINGS EXCEED 50,000 SQ.FT.

Planning Narrative for Table 6.2: Large Building LEED Certification

NO BUILDINGS EXCEED 50,000 SQ.FT.

Indoor Environmental Quality (IEQ)

Daylighting and Views in New Construction

Daylighting is the controlled admission of natural light, direct sunlight, and diffused skylight into a building to reduce electric lighting and save energy. When daylighting a space, it is important to take actions to harness the full spectrum of natural sunlight to minimize the number of hour's electricity is needed.

State agencies are required to maximize daylighting in new construction in 2 ways. State agencies shall implement mandatory measures and relevant and feasible voluntary measures of the California Green Building Standards Code (CALGreen), Part 11, related to indoor environmental quality (IEQ) that are in effect at the time of new construction, major renovations, alterations, and maintenance repairs 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 Tier 1.

Indoor Environmental Quality must also be maintained using low emitting furnishings, cleaning products and cleaning procedures. Carpet systems, carpet cushions, composite wood products, resilient (e.g., vinyl) flooring systems, and thermal insulation, acoustic ceilings and wall panels shall meet the VOC emission limits specified in CALGreen.

Reporting Narrative for Daylighting and Views in New Construction

NO NEW CONSTRUCTION

Planning Narrative for Daylighting and Views in New Construction

In the future, DOJ will work with contractors to make daylighting a priority builds. It will be considered to provide a direct line of sight to the outdoors via vision glazing between 2.5 and 7.5 above the finished floor in 90% of all regularly occupied areas. Top-lighting, side-lighting, light shelves, and reflective room surfaces will also be considered to eliminate glare and photo-sensor controls. Progress is slow because DOJ must have a specific protocol for lighting in their laboratories.

CalGreen Measures -Mandatory Measures and Relevant and Feasible Voluntary Measures of the California Green Building Standards Code

State agencies shall implement (CALGreen), Part 11, related to indoor environmental quality (IEQ) that are in effect at the time of new construction, major renovations, alterations, and maintenance repairs 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 Tier 1.

Indoor Environmental Quality must also be maintained using low emitting furnishings, cleaning products and cleaning procedures. Carpet systems, carpet cushions, composite wood products, resilient (e.g., vinyl) flooring systems, and thermal insulation, acoustic ceilings and wall panels shall meet the VOC emission limits specified in CALGreen.

CALGreen Tier 1 Indoor Environmental Quality Measures

Reporting Narrative for CALGreen Tier 1 Indoor Environmental Quality Measures

The age of the DOJ lab facilities goes back from 35 to 17 years old, therefore due to the year they were built there is no data regarding the volatile organic compounds (VOCs) for adhesives, sealants, caulks, paints, coatings, and aerosol paints and coatings to verify CALGreen Tier 1 Indoor Environmental Quality Measures achievement. This also applies for VOC emission limits specified in CALGreen for carpet systems, carpet cushions, composite wood products, resilient (e.g., vinyl) flooring systems, and thermal insulation, acoustic ceilings, and wall panels.

Planning Narrative for CALGreen Tier 1 Indoor Environmental Quality Measures

If CALGreen Tier 1 Indoor Environmental Quality Measures are not achieved due to lack of funding to accomplish this task. The next steps are that as funding becomes available the Sustainability Unit will work with the facilities team to make steady progress on meeting the CALGreen Tier 1 Indoor Environmental Quality Measures at the DOJ-owned facilities according to the code sections that apply.

IEQ-New Buildings and Renovation Measures

Reporting Narrative for IEQ-New Buildings and Renovation Measures

NO DATA FOR IEQ NEW BUILDINGS AND RENOVATION MEASURES

Planning Narrative for IEQ-New Buildings and Renovation Measures

For most of DOJ's buildings, there is no data due to the department not having any new construction or major renovations.

Furnishing Standards

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

Reporting Narrative for Compliance with Furnishing Standards

FURNISHING STANDARDS ACHIEVED

Planning Narrative for Compliance with Furnishing Standards

The DOJ Contracts & Purchasing Unit works on updating the purchasing process. DOJ purchases office furniture through California Prison Authority ([CalPIA](#)) which manufacturing and associated products are compliant with the DGS' Purchasing Standard and Specifications (Technical Environmental Bid Specification 1-09-71-52). These standards include requirement of low emitting furnishings that are safer and more environmentally friendly.

DOJ also looks to continue applying standards for purchases of Heating, Refrigerating and Air-Conditioning systems in compliance with The American Society of Heating, Refrigerating and Air-Conditioning Engineers' ([ASHRAE](#)) Standard 189.1- (Section 8.4.2.5).2011.

Green Seal Cleaning Products

Per [DGS purchasing requirements](#), departments are to use cleaning products from California Prison Authority (CalPIA).

Reporting Narrative on Using Green Seal Cleaning Products

GREEN CLEANING PRODUCTS STANDARDS ACHIEVED.

Planning Narrative on Using Green Seal Cleaning Products

Per DGS purchasing requirements, departments are to use cleaning products from CalPIA. DOJ's Sustainability Unit is responsible for recommending and reporting on compliance with using green seal cleaning products. Therefore, Sustainability will be working on this with facility leads to maintain cleaning standards for the DOJ labs' staff to ensure that contractors and DGS' janitorial staff use the CalPIA or GS-37 cleaning products.

Cleaning Procedures – Various Standards

Cleaning Procedures Standards Compliance. Reference: Section 142.3, Labor Code, such as:

- 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 GS-42](#) standard.
- Cleaning procedures follow the Carpet and Rug Institute's *Carpet Maintenance Guidelines for Commercial Applications*.
- Cleaning procedures meet [Title 8 Section 3362](#)

Reporting Narrative for Cleaning Procedures – Various Standards

The eight DOJ-owned labs achieve all the cleaning procedures' standards.

DOJ contracts out for cleaning and maintenance services at the, Eureka, Freedom, and Santa Barbara BFS labs. Additionally, DGS' janitorial staff provides these services to the DOJ-owned labs, Ripon, Fresno, Redding, Santa Rosa, and Riverside. At DGS-owned locations occupied by DOJ, DGS personnel apply standard cleaning procedures. And at the leased facilities, these services are provided under contract or by the lessor.

Planning Narrative for Cleaning Procedures – Various Standards

Like mentioned above, some of the lab's cleaning procedures comply with the Carpet and Rug Institute Seal of Approval, CalGreen Section A5.504.5.1., Green Seal GS-42, and the Carpet and Rug Institute standards. The DOJ facilities team intends to review all maintenance contracts to ensure language includes the cleaning procedures that are environmentally required.

Cleaning Procedures – Title 8, Section 3362

[Title 8 Section 3362](#) GREEN CLEANING PROCEDURES STANDARDS:

- To the extent that the nature of the work allows, workplaces, storerooms, personal service rooms and passageways shall be kept clean, orderly and in a sanitary condition. The interiors, exteriors and environs of buildings that contribute to a hazard to which these orders apply shall be cleaned and maintained in such conditions as will not give rise to harmful exposure, as defined in Section 5140.
- Cleaning and sweeping shall be done in such a manner as to minimize the contamination of the air and as far as is practicable, shall be performed at such time and in such a manner that will avoid harmful exposures as defined in Section 5140.
- To facilitate cleaning, every floor, workroom, personal service room and passageway shall be kept free from protruding nails, splinters, loose boards and unnecessary holes and openings.

- All putrescible waste or refuse shall be stored in a receptacle so constructed that it does not leak and may be conveniently and thoroughly cleaned. Such a receptacle shall be maintained in a sanitary condition and shall be equipped with a tight-fitting cover if it cannot be maintained in a sanitary condition without one. (This provision does not prohibit the use of receptacles which are designed to permit the maintenance of a sanitary condition without regard to the above requirements.)
- All sweepings, putrescible waste, refuse and garbage shall be removed in such a manner as to avoid creating a nuisance and shall be removed as often as necessary to avoid creating a menace to health through the development of unsanitary conditions.
- Every enclosed workplace and personal service room shall be equipped and maintained, as far as is practicable, to prevent the entrance or harborage of insects, rodents, or other vermin. An effective program of extermination and control shall be instituted whenever their presence is detected.
- When exterior water intrusions, leakage from interior water sources, or other uncontrolled accumulation of water occurs, the intrusion, leakage or accumulation shall be corrected because of the potential for these conditions to cause the growth of mold.

Reporting Narrative for Cleaning Procedures TITLE 8 SECTION 3362

TITLE 8 SECTION 3362 CLEANING PROCEDURES STANDARDS ACHIEVED

Planning Narrative for Cleaning Procedures TITLE 8 SECTION 3362

TITLE 8 SECTION 3362 CLEANING PROCEDURES STANDARDS ACHIEVED

HVAC Operation Requirements

Cal/OSHA - [Title 8 regulations Section 5142](#) "Mechanically Driven Heating, Ventilating and Air Conditioning (HVAC) Systems to Provide Minimum Building Ventilation" requires the following actions regarding HVAC Operations be implemented: NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

- The HVAC system should be maintained and operated to provide at least the quantity of outdoor air required by the State Building Standards Code, Title 24, Part 2, California Administrative Code, in effect at the time the building permit was issued.
- The HVAC system should be operated continuously during working hours except:
 - i. during scheduled maintenance and emergency repairs.
 - ii. during periods not exceeding a total of 90 hours per calendar year when a serving electric utility by contractual arrangement requests its customers to decrease electrical power demand; or,
 - iii. during periods for which the employer can demonstrate that the quantity of outdoor air supplied by non-mechanical means meets the outdoor air supply rate required by (a)(1) of this Section.
- The employer must have available a record of calculations and/or measurements substantiating that the required outdoor air supply rate is satisfied by infiltration and/or by a nonmechanically driven outdoor air supply system.
- HVAC Operation Requirement.
- 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 1 hour before occupancy.

Reporting Narrative for HVAC Operations

Most of DOJ's facilities achieve the HVAC OPERATIONS.

All DOJ labs need to stay operational, therefore it is critical that the heating and cooling systems at the labs operate permanently, correctly, and efficiently to ensure adequate environmental conditions to run lab equipment and manage, preserve, and storage evidence and samples.

The Redding lab has a Maximo system that provides maintenance and data tickets, and a complete air change happens every minute and 56 seconds. The Eureka and Freedom labs do not have a computer based preventative maintenance program nor are buildings purged with outdoor air sufficient for three complete air changes.

The Fresno lab will be getting a new BMS/EMS (Battery Management System/Energy Management System) in 2026 that will improve the HVAC system efficiency. Some of the heating and cooling systems will be also upgraded by installing four new condensers at the Redding (3) and Fresno (1) BFS labs, and three ductless split systems at the Riverside, Fresno, and Ripon BFS labs.

Planning Narrative for HVAC Operations

The HVAC systems' operational requirement improvements at the BFS labs, being state facilities, will depend on internal budgeting constraints. However, as it was outlined before, the department is working to ensure HVAC maintenance programs by 2026 on a current contract through DGS in collaboration with PG&E and Centrica. The department will also consider implementing electrification and energy-efficient measures by replacing the current equipment with natural gas boilers with air-to-water heat pumps and natural gas rooftop units with heat pump units.

HVAC Inspection Requirements

Annual inspections of HVAC systems are required, and all HVAC inspections and maintenance are documented in writing.

Reporting Narrative for HVAC Inspection Requirements

HVAC INSPECTION REQUIREMENTS ACHIEVED

Planning Narrative for HVAC Inspection Requirements

HVAC INSPECTION REQUIREMENTS ACHIEVED

Integrated Pest Management (IPM)

Table 6.3: Self-Managed Pest Control

Per [SAM Section 1821.3](#), Integrated Pest Management (IPM), and [MM 15-06](#), department staff and contracted pest management companies will follow an IPM strategy that focuses on long-term prevention of pest problems through monitoring for pest presence, improving sanitation, and using physical barriers and other nonchemical practices.

Table 6.3: Self-Managed Pest Control

Self-Managed Pest Control	Y/N	Is there an IPM plan? (Y/N)
Does your department self-manage pest control for any and or all Department buildings and the associated building landscapes?	Yes	No
Does your department self-manage pest control for any and or all Department mission-related infrastructure including, but not limited to, highway medians and shoulders, levees, reservoirs, canals, campgrounds and recreation areas?	N/A	N/A

Reporting Narrative for Table 6.3: Self-Managed Pest Control

Redding, and Freedom all have self-managed pest control but do not have an IPM plan in place. Redding and Freedom have no pest issues. And at the Redding lab the DGS engineer is handling any pest control problems when they come up.

Planning Narrative for Table 6.3 Self-Managed Pest Control

The Department is committed to sustainable and environmentally responsible pest management practices at all self-managed facilities. Department staff and

contracted pest control providers adhere to follow an IPM approach that prioritizes long-term prevention and minimizes the use of chemical pesticides. IPM strategies begin with proactive measures such as routine monitoring, improved sanitation, facility maintenance, and the use of physical mechanical barriers to deter pests. These non-chemical methods form the foundation of the department's pest management efforts.

Chemical controls are considered only when non-chemical methods are proven ineffective. In such cases, pesticide use follows a strict tiered protocol, beginning with Tier 3 (least toxic) products. Escalation to Tier 2 or Tier 1 pesticides is only permitted when necessary and in accordance with IPM guidelines and all applicable regulatory requirements. All pest management activities are documented and regularly reviewed to ensure compliance and support DOJ's broader sustainability goals.

Table 6.4: External Pest Control Contracts

External Pest Control Contract	IPM Specified Y/N	Is there an IPM plan? (Y/N)	Contract Renewal Date
Woods Pest Control	Yes	Yes	7/1/2027
Clark Pest Control	Yes	Yes	7/31/2027
Dustin Pest Control	Yes	Yes	4/14/2028

Reporting Narrative for Table 6.4: Pest Management Contracts

In addition to the Management Memo and section of the State Administrative Manual (SAM) PM related policies, the DOJ IPM policy Administrative Bulletin 21-07 details procedures for DOJ staff or contractors to carry out when controlling pests. Practices are aimed at using more environmentally friendlier options. The policy is currently effective throughout all DOJ locations, owned and leased sites.

As part of DOJ's commitment to sustainable facility operations, the DOJ Sustainability Unit played a key role in supporting the implementation of IPM practices across self-managed locations in 2024.

To ensure consistent and compliant adoption of IPM statewide, the Sustainability Unit provided each facility with information on the protocols and the proper structured approach to pest control. In addition, Sustainability also shared pre-

screened pest management vendors that meet DOJ's IPM standards. These vendors were vetted for their compliance with state regulations, familiarity with IPM practices, and ability to support DOJ's tiered pesticide use policy. By offering the resource, the Unit helped ensure facilities could easily identify and engage qualified providers capable of meeting both operational and sustainable goals.

Three facilities had contracted pest management companies that follow an IPM strategy focusing on long-term prevention of pest problems through monitoring for pest presence, improving sanitation, and using physical barriers and other nonchemical practices. If nonchemical practices are ineffective, [Tier 3 pesticides](#) may be used, progressing to Tier 2 and then Tier 1 if necessary. The BFS lab Eureka contracts with Woods Pest Control, and the BFS Ripon contracts with Clark Pest Control and Fresno contracts with Dustin Pest Control, and earlier this year the Freedom lab used Terra X Pest Services for the ants. Riverside, Santa Rosa, and Santa Barbara request pest control services from vendors on as a needed basis. Santa Barbara uses Lenz Pest Control and the BFS Riverside have used Legion Pest Management for pest control.

Planning Narrative for Table 6.4 Pest Management Contracts

For any future pest management contracts, DOJ will ensure they contain IPM standards. Sustainability is assisting the lab facilities by providing a consolidated and updated list of potential IPM-verified vendors to the lab staff. The approaches might combine different strategies for the pest of concern at each facility to reach effectiveness while minimizing the risks to human health, the environment, and the property.

The lab director at the BFS Santa Rosa is contacting Western Exterminator, and currently they are working on the documents to be completed by the vendor. And the BFS Riverside is looking into establishing a contract with Legion Pest Management.

Table 6.5: Top 5 Department Pests Requiring Pest Control

Pest Name (common)	Pest Control Method(s)
Wasp/Yellowjacket/Hornet/Stinger Insects	Spraying
Ants	Trap/Perimeter Spraying
Cockroaches	Perimeter Spraying
Rodents	Cages/Bait traps
Spiders	Perimeter Spraying

Reporting Narrative for Table 6.5: Top 5 Department Pests Requiring Pest Control

Table 6.5 lists the top five pests that all DOJ-owned facilities have reported having issues which have been professionally addressed by the IPM contracted vendors with the methods that are outlined to maintain a safe and healthy working environment at the lab facilities as well as the surroundings.

Planning Narrative for Table 6.5 Top 5 Department Pests Requiring Pest Control

The Sustainability unit will continue providing assistance to the BFS facilities by identifying IPM-certified vendors that can provide pest control services under contracts or on an as-needed basis.

Fossil Fuel Landscaping Equipment Replacement with Low Emitting Landscaping Equipment

Reporting Narrative for Replacing Fossil Fuel Landscaping Equipment

Fresno has two string trimmers and one of each push mowers, riding mowers, riding carts, leaf blowers, hedge trimmers, chainsaws, and pole saws. And the equipment at this facility is not currently being replaced. Every other facility has no landscaping equipment.

Planning Narrative for Replacing Fossil Fuel Landscaping Equipment

DOJ contracts out landscaping at facilities it owns, so DOJ has no control over landscaping equipment. However, DOJ intends to create new policies by 2027 for requiring landscaping vendors to utilize low-emission, electric, battery powered or manual landscaping equipment per [SAM Section 1821](#).

Location Efficiency

Location efficiency refers to the effect of a facility's location on travel behavior and the environmental, health and community impacts of that travel behavior including emissions from vehicles. Locating department facilities in location efficient areas reduces air emissions from state employees and users of the facilities, contributes to the revitalization of California's downtowns and town centers, helps the department compete for a future workforce that prefers walkable, bikeable, and transit-accessible worksites and aligns department

operations with California's planning priorities. Smart Location Scores can be found at <https://www.sl.cgsa.gov/sl/>.

The Smart Location Calculator is a simple tool for exploring how workplace location affects worker commute travel. Indicators include worker commute mode-share, vehicle miles traveled, and workplace accessibility via transit.

The Calculator provides a Smart Location Index (SLI), which ranges in value from 0-100, where 0 indicates the least location efficient site in the region, and 100 indicates the most location efficient site. These scores are relative to the region and should not be compared across regions.

Smart Location Score for New Leases after January 1, 2020

Table 6.6: Smart Location Score for New Leases after January 1, 2020

Facility name	Smart Location Calculator Score
BFS-Chico	43
DLE/BFS-Richmond 1 and 2	44
DMFEA-Orange	7
DMFEA-Sacramento 1	14
DLE-San Diego	27
DMFEA-San Diego	21
DMFEA-Redding	22
DLE/DMFEA-Dublin	12
DMFEA- Sacramento 2	14

Reporting Narrative for Table 6.6: Smart Location Score after January 1, 2020

The CA DOJ has 9 new leases since January 1st, 2020. The Smart Location Score estimates BFS-Chico and DLE/BFS-Richmond 1 and 2 as its highest numerical rating. This indicates the location efficiency of the area. A smart location score in the 40s indicates that these locations are somewhat car-dependent, with most errands requiring a vehicle yet have the most walkable areas of the facilities list. DLE-San Diego, DMFEA-San Diego and DMFEA-Redding are grouped in score ranges in the 20s. This indicates a firm car dependency where almost all errands require a car. DLE/DMFEA-Dublin, DMFEA-Sacramento (1 and 2), and DMFEA-Orange scored one in the 10s. These locations suggest high reliance on cars, poor walkability, limited amenities, and increased vehicle travel. There is no data at this time as to the reasoning for the low efficiency scores in the region.

Planning Narrative for Table 6.6: Smart Location Score after January 1, 2020

Estimates of the benefits of workplace location efficiency will support the decision-making process the DOJ facilities team makes to improve location efficiency scores for future new leases. This report serves as a reference for planning for new locations. New locations should consider the public transportation, amenities and walkability, and environmental impact. In the meantime, internal improvements depend on the resources of each location. Some locations offer a flexible work policy, such as hybrid or remote work that can reduce the burden of a difficult commute.

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

Table 6.7: Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score

Facility name	Smart Location Calculator Score	Lease Renewal Date
AG-Sacramento	92	Indefinitely (DGS Space assignment)
CJIS/Firearms/BFS-Sacramento	52	Indefinitely (DGS Space assignment)
AG-Fresno	25	Indefinitely (DGS Space assignment)
AG-Los Angeles	56	Indefinitely (DGS Space assignment)
AG-Oakland	96	Indefinitely (DGS Space assignment)
AG-San Francisco	98	Indefinitely (DGS Space assignment)
DLE-Fresno	17	4/30/2026
DMFEA-Burbank	79	1/31/2026
DMFEA-West Covina	96	8/31/2027
DMFEA/DLE-Riverside	14	5/31/2029
CJIS-Sacramento	15	8/31/2031
AG-San Diego	84	4/30/2027
DLE/CJIS-Commerce 1	1	9/1/2025
DLE-Commerce 2	1	9/1/2025

Facility name	Smart Location Calculator Score	Lease Renewal Date
DLE-Sacramento	11	7/31/2035

Reporting Narrative on Table 6.7: Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score

AG – Sacramento, AG – Oakland, AG - San Francisco, and DMFEA-West Covina score at a high range in the 90s. This indicates accessibility and sustainable travel. These sites are of the best in their area for minimizing commute travel, exceptional walkability, strong land-use diversity, and a well-designed street network. DMFEA-Burbank and AG-San Diego scored between the 70 and 80s, this indicates a very good location range with many daily necessities and points of interest easily accessible by foot or by public transit. It's not as 'excellent' as the facilities that scored in the 90s but it's still a favorable combination. CJIS/Firearms/BFS-Sacramento and AG-Los Angeles are in the 50s. AG – Fresno, DLE-Fresno, CJIS-Sacramento, DMFEA/DLE-Riverside, and DLE-Sacramento have scores that range between 10s and 20s, whereas DLE/CJIS-Commerce 1 and DLE-Commerce 2 have the lowest score. These locations suggest high reliance on cars, poor walkability, limited amenities, and increased vehicle travel.

Planning Narrative on Table 6.7: Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score

The department plan is to continue encouraging employees to consider bicycle commuting as a means of active transportation and receive the benefits of the taxable Bicycle Commuter Program or the commute benefits program that consider alternate forms of transportation, such as public transit, carpool, bicycling, walking, etc., rather than driving solo when employees commute to their headquartered office.

CHAPTER 7 - WASTE MANAGEMENT AND RECYCLING

Department Mission and Waste Management and Recycling

The purpose of this chapter is to detail the department's progress of its Waste and Recycling efforts to the Governor and the public.

The California Department of Justice upholds the rule of law, protects the public, and ensures justice for all Californians. In alignment with the State of California's environmental and climate goals, the DOJ is committed to integrating sustainable practices across all operations. This includes promoting environmental stewardship, reducing our ecological footprint, and advancing climate resilience in the justice system. Our mission extends to responsibly managing resources, supporting a clean energy future, and ensuring that our facilities, procurement, and internal policies reflect California's leadership in environmental sustainability and equity.

DOJ encourages waste prevention by providing all DOJ employees guidance on recycling efforts and waste management practices including procurement of recycled content products and environmentally preferable purchasing (EPP) following the Administrative Bulletin 21-14 (8/10/2021-2026) policy. DOJ also incorporates waste prevention into procurement practices by purchasing recycled-content products (RCP). The Contracts and Purchasing Unit (CPU) tracks and reports those purchases in accordance with the State Contracting Manual (SCM) guidelines and internal policies (Administrative Bulletin 23-17, 9/8/2023-2028). The Asset Management Unit (AMU) and the DOJ Facilities Unit actively promote material reuse across its operations to reduce waste and extend the life of equipment and supplies by actively participating in the DGS Surplus Property & Reutilization (SPR) program following the requirements outlined in SAM 5-1.

Accordingly, the department has implemented waste diversion and recycling programs in compliance with the state requirements. The Sustainability Unit prepares and submits the waste management plans and annual reports also to the State Agency Reporting Center (SARC) through the California's Department of Resources Recycling and Recovery ([CalRecycle](#)). These reports include details about the department's waste diversion and recycling programs. Waste management reporting data are acquired by tracking the department's annual waste tonnage to reduce the generated waste that goes to landfills. Reports like this serve to support the DOJ's sustainability mission and ensure alignment with state mandates such as AB 341 (Mandatory Commercial Recycling) and SB 1383 (Short-Lived Climate Pollutants: Organic Waste Reductions), the department has established structured waste management programs and plans to ensure accountability.

The Sustainability Unit also supports waste management and recycling efforts acting as the Recycle Coordinator for the department, providing information and working in coordination with the DOJ's Mandated Reports Coordinator and the facilities' waste and recycle coordinators by implementing the onsite waste diversion and recycling programs and addressing any requirements to ensure compliance.

Waste and Recycling Programs

The California Integrated Waste Management Act (Assembly Bill 939, Sher, Chapter 1095, Statutes of 1989 as amended) established the solid waste management hierarchy. Source reduction is at the top of the state's waste management hierarchy; recycling and composting is next, followed last by environmentally safe disposal. California's Department of Resources Recycling and Recovery (CalRecycle) administers the state's recycling and waste management programs.

Key Legislation Driving State Agencies' Waste Management Programs:

Current statutes [require](#) all state agencies and large state facilities to **divert at least 50 percent of their solid waste from disposal facilities** on and after Jan. 1, 2004. The law also requires by May 1 annually each state agency and large facility to [submit an annual report](#) to the California Department of Resources Recycling and Recovery (CalRecycle) summarizing its yearly progress in implementing [waste diversion programs](#).

[AB 2812 \(Gordon, Chapter 530, Statutes of 2016\)](#), each state agency and large state facility is required at least once per year to review the adequacy and condition of receptacles for recyclable material and of associated signage, education, and staffing.

[Management Memo No. 15-06](#), State Buildings and Grounds Maintenance and Operation, issued by DGS, requires "a minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas" and other drought-related orders.

[AB 2048 \(Santiago, Chapter 457, Statutes of 2022\)](#), requires CalRecycle to create and maintain a publicly accessible online database for franchise agreements held between contracted solid waste and recycling haulers and any jurisdiction or public agency.

[SB 1383 regulations](#) require the following state agencies and large state facilities:

Collection Requirements: state agencies and large state facilities must recycle their [organic waste](#) either by:

Subscribing to a collection service that the jurisdiction provides OR

- Contracting for collection services independently OR
- Self-hauling organic waste to a specified composting facility, community composting program, or other collection activity or program.

Education: state agencies and large state facilities must educate employees about organic waste prevention. Staff and administrators must periodically:

- Inspect organic waste containers for contamination,
- Inform employees if containers are contaminated, and
- Instruct employees on how to properly sort material into the correct containers.

Signage and Container Labeling: Having clear signage and container labeling encourages proper sorting and minimizes contamination. See *Containers* for container color and labeling requirements.

- **Containers**



State agencies and large state facilities must provide containers to collect organic waste and recyclables in all areas where disposal containers are provided, except in restrooms. However, state agencies and large state facilities is not required to provide an internal collection container if a specific material type is not generated

in a particular space (e.g., food waste in a classroom or office). Containers must conform to the proper color or labeling requirements:

- State agencies and large state facilities may use existing internal organics collection containers until they are no longer functional or until January 1, 2036, whichever comes first, if they are the correct color.
- Alternatively, state agencies and large state facilities may adhere labels to existing internal containers that identify accepted and prohibited materials.
- The internal container must have a body or lid that conforms with the container colors OR must have container labels on new containers that comply with the labeling requirements.

Note: If the collection service is 3 container system, then a green, blue, and gray internal containers are required, or the 3 internal containers need to be labeled appropriately.

State agencies and large state facilities must ensure **new** containers are properly labeled by:

- Placing labels on containers that include language or graphic images, or both that indicate the primary materials accepted and the primary materials prohibited in that container; or
- Providing containers with imprinted text or graphic images that indicate the primary materials accepted and the primary materials prohibited in that container.
- Labels shall clearly indicate primary items that are prohibited container contaminants for each container.
- State agencies and large state facilities may comply by using model labeling provided by the Department.

Designated Waste and Recycle Coordinator and Program Basics

Pursuant [AB 75](#) each state agency shall have at least one designated waste and recycle coordinator. The coordinator shall perform the duties imposed pursuant to this chapter using existing resources. The coordinator shall be responsible for implementing the integrated waste management plan and shall serve as a liaison to other state agencies and coordinators. You can find your department's coordinator at ([State Agency Reporting Center \(SARC\) Report](#)). This link also has a report function to Excel of all your department's facilities reporting waste information where you may import all your facilities.

Reporting Narrative on Designated Waste and Recycle Coordinator and Program Basics

DOJ Sustainability as the designated waste and recycle coordinator works in coordination with the DOJ's Mandated Reports Coordinator and the facilities' waste and recycle coordinators. To prepare the annual report sustainability surveys each facility through their facility manager who oversees and performs the required duties to meet all related mandates and policies using existing resources. Sustainability also assists them by identifying any needs for the recycling and diverting programs on site and implementing processes or solutions such as service contracts or containers.

DOJ's Sustainability Unit manages waste diversion and recycling related contracts with certified vendors for adequate waste disposal and recycling procedures including having receptacles with proper signage. While visiting facilities, the Sustainability Unit conducts a thorough review in the year to confirm the condition of the receptacles for recyclable materials and proper signage, education and staffing are still functioning, as it should.

Planning Narrative on Designated Waste and Recycle Coordinator and Program Basics

DESIGNATED WASTE, RECYCLE COORDINATOR, AND PROGRAM BASICS ACHIEVED

SARC Report

SARC Report on Total Waste per Capita

The department's [State Agency Reporting Center \(SARC\) Report](#) is used to provide the data and narrative below.

Table 7.1: State Agency Reporting Center (SARC) Report on Total Waste per Capita

Per Capita Disposal Rate	2023	2024	Total Waste 2023	Total Waste 2024	% Change from 2023 to 2024
Target 0.60	0.16	0.16	164.57	161.1	2.11%

Reporting Narrative on Table 7.1: SARC Report on Total Waste per Capita

The 2023 and 2024 SARC reports provided detailed waste diversion and recycling programs information for 31 DOJ facilities, including 8 owned facilities, 6 DGS-leased facilities, and 17 private-leased facilities. This data indicates that the total waste generated in 2024 decreased by 82% compared to year 2003 and by 15% compared to year 2020. Even though total waste disposal in 2024 slightly increased compared to the years 2021 (122.93 tons) and 2022 (147.56 tons) when the department's workforce was remote centered due to the pandemic, there was a 2.11% decrease from the previous year.

The per capita disposal rate was 0.16 pounds per person per day, given a department's workforce of 5,653 employees in 2024. This rate is 74% lower than the target Per capita Disposal Rate (pounds/person/day) of 0.6. Therefore the results are exceeding the solid waste reduction target.

Planning Narrative on Table 7.1: SARC Report on Total Waste per Capita

PER CAPITA DISPOSAL RATE ACHIEVED

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 carpet, paint, 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% of solid waste generated statewide.

DOJ has an internal recycling program mainly consisting of reporting and recycling contracts. The Sustainability Unit in the Department hopes to increase training,

awareness, and recycling programs. It intends to develop and implement programs that meet the governor's sustainability goals for green operations. Currently, offices have recycling stations for white paper, mixed paper, aluminum, glass, and plastic. There are bottle recycling containers throughout break rooms and a battery recycling station. The largest type of waste for the department is contaminated paper goods (tissues, napkins, etc.). The obstacle in decreasing this amount is finding enough resources to provide organic bins throughout, along with educating staff. Another obstacle is finding vendors to provide services in remote areas.

Besides the required signage and training for employees, there are adequate policies and guides to raise awareness about procedures in proper recycling, reusing resources, contracts, and purchasing. There are the appropriate number of receptacles for each facility and conditions to meet the needs of each employee.

The unit is currently planning on a battery contract to be implemented for adequate battery recycling for the facilities in 2026.

Planning Narrative on Recycling Program and Practices

RECYCLING PRACTICES ACHIEVED

Organics Recycling

State agencies must implement [AB 1826 \(Chesbro, Chapter 727, Statutes of 2014\)](#). State agencies that generate two cubic yards or more of commercial solid waste (total trash, recyclables, and organics) per week shall arrange for organic waste recycling services.

Organic waste includes:

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

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.

Effective January 1, 2022, state agencies must implement [SB 1383 \(Lara, Chapter 395, Statutes of 2016\)](#). State agencies are currently required to maintain mandatory commercial recycling and organic recycling programs, 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. Under SB 1383, non-local entities include:

1. State agencies
2. State Park facilities
3. Prisons
4. Public universities and community colleges
5. Special districts
6. Federal facilities
7. County fairgrounds

SB 1383 organics collection requirements are effective January 1, 2022.

Reporting Narrative on Organic Recycling Program and Practices

DOJ is actively working on adding an organics-recycling program following updates made to the Department of Justice Administrative Manual (DOJAM) and creating an Organic Waste Program for each office. All facilities meeting the waste threshold (two cubic yards or more of commercial solid waste, total trash, recyclables, and organics per week) have an Organic Waste Program implemented, are in the process of implementation or have a de-minimis waiver to exempt them from this compliance that CalRecycle recommended.

The organic waste generation is minimal in facilities and the landscaping contractors manage disposal of the landscaping and pruning waste. Currently, there are at least seven facilities that are eligible for waivers to exempt them from this policy, a process that is under review for approval by CalRecycle.

Planning Narrative on Organic Recycling Program and Practices

In addition to maintaining hauler contracts, DOJ is examining its facilities and identifying local organic recycling organizations to further provide facilities with organics management resources when necessary.

Edible Food Recover Program

Commercial edible food recovery began January 1, 2024, for Tier 2 generators including state agencies that have cafeterias that seat at least 250 people or is greater than or equal to 5,000 square feet. 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.

Edible food means food intended for people to eat, including food not sold because of:

- Appearance
- Age
- Freshness
- Grade
- Size
- Surplus
- Edible food includes but is not limited to:
 - Prepared foods
 - Packaged foods.
 - Produce

Table 7.2: Edible Food Recovery Program Elements

Building Name	Cafeteria >5,000 sq. ft. (Enter sq. ft.)	Cafeteria +250 Seats (Enter number of seats)	Cafeteria Open in 2023?	Cafeteria Open in 2024?	Food Recovery Agreement (Yes, No or Unknown)
NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED					

Reporting Narrative on Table 7.2: Edible Food Recovery Program Elements

NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED

Planning Narrative on Table 7.2: Edible Food Recovery Program

NO EDIBLE FOOD RECOVERY PROGRAM REQUIRED

Food Service Items Program

Reporting Narrative on Food Service Items Program

Table 7.3: 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
AG-Los Angeles.	Biggins Café	TBD-DGS owned	TBD-DGS owned
DMFEA-San Diego.	Kings Craft Coffee Co.	N/A	N/A
DMFEA-Orange	Subway	N/A	N/A

Reporting Narrative on Table 7.3: Food Service Items Program

There are three DOJ facilities with food vendors on-site and there is organics service in place for all these facilities provided by Republic Services, Waste Disposal, and CR&R Environmental Services. However, the food vendors did not provide details regarding their food service packaging and processes in place since the DMFEA offices in San Diego and Orange are private managed and they are not state-owned property/facilities.

Planning Narrative on Table 7.3: Food Service Items Program

FOOD SERVICE ITEMS PROGRAM ACHIEVED.

Hazardous Waste Materials

Reporting on Hazardous Waste Materials

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. The universe of hazardous waste is

large and diverse. Hazardous waste can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. In California the individual generating the waste must determine if the waste generated meets the criteria of hazardous waste from non-specific sources as defined in the [CA Code of Regulations 22 CCR section 66261.3](#). Hazardous waste is classified as either being subject to Resource Conservation and Recovery Act (RCRA), found in Title 40 of the Code of Federal Regulations (CFR), or it is subject to HSC and 22 CCR. The hazardous waste categories include acutely hazardous waste, extremely hazardous waste, non-RCRA hazardous waste, RCRA hazardous waste, special waste, and universal waste. The Department of Toxic Substances Control (DTSC) has provided a self-paced internet [course on hazardous waste](#) identification to further assist in properly identifying waste.

In California, waste oil and materials that contain or are contaminated with waste oil are usually regulated as hazardous wastes if they meet the definition of “used oil” in [HSC section 25250.1](#), which reads as any oil that has been refined from crude oil, or any synthetic oil, that has been used and, because of use, or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities. In addition, used oil means a material that is subject to regulation as used oil under [Part 279](#) (commencing with section 279.1) of Subchapter I of Chapter 1 of 40 CFR.

Hazardous waste disposal requires a licensed hazardous waste disposal vendor. The vendor must provide your department with the complete chain of custody from collection of the hazardous waste to its proper disposal including type and amount of waste.

Table 7.4: Hazardous Waste Materials

Department -Wide Hazardous Material Name	Department Total Hazardous Material Amount (lbs.)
Acutely Hazardous Waste	
Extremely Hazardous Waste	
Resource Conservation and Recovery Act*	9262.3
Non-RCRA hazardous waste*	17326.8
Special waste	
Universal waste**	2,782
Used oil	
Materials mixtures and residuals	

Source: *[Hazardous Waste Tracking System](#) and ** Modern Waste Solutions report.

Reporting Narrative for Table 7.4: Hazardous Waste Materials

DOJ has also implemented standard procedures for hazardous and universal waste management to ensure human health and environmental safety.

DOJ has a dedicated safety officer that oversees hazardous waste management procedures for all BFS labs, and each lab facility has a designated safety officer as well. Hazardous waste disposal is managed by North State Environmental, a licensed hazardous waste disposal vendor that provides all BFS labs with the complete chain of custody from collection of the hazardous waste to its proper disposal including type and amount of waste. Reports for all BFS labs are submitted to the California Department of Toxic Substances Control (DTSC) and are available in their [Hazardous Waste Tracking System](#) webpage. The contract with this vendor is renewed every two years.

There are twelve labs DOJ reports for hazardous waste tracking, specifically Resource Conservation and Recovery Act (RCRA)/Non-RCRA and these labs very rarely handle Acutely Hazardous Waste and Extremely Hazardous Waste. From the 2024 reports, the Sacramento Lab has the highest total of both RCRA, disposing of 5,290 lbs., and Non-RCRA, disposing of 4,375 lbs. The Goleta lab has the lowest RCRA disposal of 17 lbs. while the Riverside lab has the lowest disposal amount of Non-RCRA of 409.8 lbs. Eureka and Santa Rosa have annual service contracts with a hazardous waste contractor therefore this data is not tracked using this source. Any biohazard waste is removed weekly by a biohazard waste contractor for these labs.

Additionally, from January 2024 to June 2025, the facility in total account for 2,782 pounds of battery waste, that is categorized as universal waste in the table above. The facility with the highest weight of batteries is Sacramento CJIS with 784 pounds. The highest weight of batteries at a DOJ facility is Riverside with 247 pounds. And the facility with the lowest accumulated battery waste is at Fresno with a total weight of 1 pound.

Planning Narrative for Table 7.4: Hazardous Waste Materials

DOJ intends to further assess its facilities to ensure that the hazardous materials generated do not end up in landfills by reviewing internal procedures for universal waste. The department's facilities team will continue coordinating with contractors to continue ensuring the proper disposal of hazardous waste generated at the BFS laboratories and retrieve the data for the categories that properly reporting is still needed.

Universal Waste Program

Agencies are to ship their universal waste to another handler, a universal waste transfer station, a recycling facility, or a disposal facility. There are eight categories of waste that have been classified as Universal Wastes—batteries, electronic waste, CRTs, CRT glass, lamps, mercury wastes, non-empty aerosol cans, and PV modules. This is covered in the SAM 1930.15 -Universal Waste (Batteries, Mercury Thermostats and Products Non-Empty Aerosol Cans).

Reporting on Department-Wide Universal Waste Materials

Table 7.5: Reporting on Department- Wide Universal Waste Materials

Category	Universal Waste Contract in Place YES or NO
Electronic Waste	YES
Batteries	YES
CRTS	YES
CRT glass	NO
Lamps	NO
Mercury Wastes	YES
Non-empty aerosol cans	NO
PV modules	N/A

Reporting Narrative for Table 7.5: Department-Wide Universal Waste Materials

The Asset Management Unit (AMU) uses various vendors throughout the state to dispose the department's obsolete e-waste. There is no contract associated with our e-waste activities. They search in the CalRecycle directory, [Where Do I Recycle E-Waste? \(ca.gov\)](http://www.calrecycle.ca.gov/Where-Do-I-Recycle-E-Waste/) and the Department of Toxic Substances Control approved vendor list, [Electronic Waste Recycling Act Participants](http://www.dts.ca.gov/electronic-waste-recycling-act-participants/), to find certified vendors and request services on as a needed basis. Most of the vendors we have worked with offer free pickups of e-waste but will take batteries only if they integrated/attached into the equipment. There is no contract for CRT glass pickup since facility leads to ensure they are reused or not thrown away as waste. To manage CRT glass at the CJIS/ Firearms/ BFS facility in Sacramento, DGS buys recycling boxes, fill them up with the bulbs, that get picked up by the handler, and the department keeps the receipts for any future auditing process. For the aerosol cans disposal, they empty out the aerosol in a special device before they the cans are appropriately disposed, so they meet the definition of empty cans that are not universal waste.

DOJ's Sustainability Unit manages the universal waste for household type batteries (that may include alkaline, Zinc-carbon, silver button-cell or coin, mercury, Single-use lithium, lithium-ion, nickel-metal hydride and nickel-cadmium, and small-sealed lead acid batteries) by contracting authorized vendors that provide timely processing, authorized treatment, and certified compliant transportation or shipment to another UW handler or destination facility.

Each DOJ laboratory location has its own hazardous waste management program and disposes of hazardous materials through the contracted environmental companies listed above. Further details about efforts the BFS owned labs make to manage their universal waste are also described below.

The Santa Barbara lab reported that it has a procedure in place for all categories of Universal Waste. While other labs can dispose of Electronic Waste, such as Fresno and Santa Barbara labs. The labs that dispose of Mercury Waste include Eureka, Santa Rosa, Redding, and Santa Barbara labs. Fresno and Santa Barbara do dispose of CRTS and CRTS glass. Redding, Fresno, and Santa Barbara do dispose of Lamps. Redding and Santa Barbara do dispose of non-empty aerosol cans.

Additionally, both Eureka and Santa Rosa have state owned/purchased e-waste stored onsite pending surveying and removal. The lab staff at these facilities currently take small items (e.g., microwaves, tea kettles) to local and public e-waste events on their personal time.

Finally, the Department does not handle PV modules yet.

Planning Narrative for Table 7.5: Department-Wide Universal Waste Materials

Since the most recent battery contract just concluded in June of 2025, the sustainability unit is currently soliciting for a battery contract for all the owned labs for FY 2025-26.

Material Exchange Programs

These programs promote the exchange and reuse of unwanted or surplus materials from your department. The exchange of surplus materials reduces the cost of materials/products for the receiving department and results in the

conservation of energy, raw resources, landfill space, including the reduction of greenhouse gas emissions, purchasing and disposal costs.

Reporting Narrative on Department-Wide Material Exchange

The department follows DGS-Surplus Property Program, State Administration Manual (SAM), Sections 3520-3522, CalRecycle-State Agency Waste Management Guidelines for its material exchange programs.

DOJ prioritizes internal redistribution of gently used office furniture, IT equipment, and facility supplies through an internal asset sharing platform, allowing divisions to request or transfer items before considering surplus designation. When materials cannot be reused internally, the department donates usable items—such as desks, chairs, filing cabinets, and functional electronics—to the other state agencies, public schools, or nonprofit organizations in accordance with DGS surplus property policies avoiding unnecessary disposal and landfill use.

The department collaborates with certified e-waste recyclers to ensure responsible recovery of non-functional electronic devices. These efforts not only reduce procurement costs and landfill waste but also reinforce DOJ's commitment to environmental stewardship and resource efficiency.

Planning Narrative on Department-Wide Material Exchange

To ensure the ongoing success and expansion of its material exchange efforts, the California Department of Justice will formalize and scale its internal processes for asset redistribution, surplus donation, and equipment reuse. The department plans to strengthen its internal material exchange network. This improvement will promote cost savings and reduce waste by extending the lifecycle of office furniture, electronics, and other durable goods.

DOJ will continue collaborating with the DGS to streamline surplus property donations to eligible schools, nonprofit organizations, and public agencies, ensuring full compliance with state reuse policies. Training will also be provided to administrative and facilities staff to standardize procedures for evaluating, documenting, and preparing items for transfer.

Additionally, to enhance environmental tracking, DOJ will begin including material exchange data—such as the number of items reused or donated—in its internal sustainability performance reports. These efforts will institutionalize reuse as a first priority, reduce landfill-bound waste, and contribute to broader statewide zero-waste and climate goals.

Waste Prevention Program

Programs in this section support (a) waste prevention: actions or choices that reduce waste and prevent the generation of waste in the first place; and (b) 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.

Reporting Narrative on Department-Wide Waste Prevention

DOJ encourages waste prevention by implementing waste reduction strategies in each facility following the Administrative Bulletin 21-14 (8/10/2021-2026) policy that informs and provides all DOJ employees guidance on recycling efforts and waste management practices for all in-house and external operations, including procurement of recycled content products and environmentally preferable purchasing (EPP) in accordance with Department of General Services (DGS) and California Department of Resources Recycling and Recovery (CalRecycle).

Recycling programs are implemented, and all employees are expected to recycle the following:

- Paper (white, mixed color, newspaper, confidential shredded)
- Cardboard
- Plastic
 - #1 PET (Polyethylene Terephthalate) water bottles,
 - #2 HDPE (High-Density Polyethylene) milk and jugs containers, and
 - #5 PP (Polypropylene) rigid plastic containers.
- Glass (bottles/containers)
- Aluminum/Metal (bottles/containers)
- Copier/Toner cartridges
- Telephone books
- Batteries

DOJ has prioritized digital transformation as a core prevention strategy by expanding the use of electronic records, e-signature platforms, intranet updates and electronic bulletin boards and online case management systems to significantly reduce reliance on paper. All DOJ offices have adopted default duplex printing and paperless workflows and use remanufactured toner cartridges whenever possible.

In facilities and operations, the department has reduced single-use items by transitioning to durable, reusable alternatives in breakrooms, meeting spaces, and catered events. DOJ also incorporates waste prevention into procurement practices by favoring products with minimal packaging, high recycled content, and extended life cycles, in accordance with Environmentally Preferred Purchasing (EPP) guidelines and internal policies (Administrative Bulletin 23-17, 9/8/2023-2028).

For employee awareness about waste prevention and opportunities, the department has implemented large clear recycling programs signage in appropriate locations throughout DOJ-owned/leased facilities. Additionally, staff are encouraged through regular training and outreach campaigns to consider reuse, repair, and conservation before disposal.

These department-wide efforts not only reduce landfill waste, but also lower purchasing costs and greenhouse gas emissions associated with material production and transportation.

Planning Narrative on Department-Wide Waste Prevention

DOJ can expand digital workflows and eliminate unnecessary printing through upgraded document management systems and mandatory paperless processes where feasible. The department can integrate waste prevention into procurement by prioritizing products with minimal or reusable packaging, high durability, and longer life cycles—ensuring alignment with EPP guidelines. DOJ can formalize internal reuse practices by creating a centralized inventory platform for sharing surplus office supplies, furniture, and electronics across divisions before new purchases are approved.

The department can enhance employee engagement through regular training, visible signage, and campaigns that promote source reduction and smart consumption behaviors. DOJ will also identify high-waste areas and adjust strategies accordingly. Together, all these approaches will institutionalize waste prevention, reduce operational costs, and help the department meet California's sustainability and zero-waste goals.

Reuse Program

Reuse programs focus on 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.

Reporting Narrative for Department-Wide Material Reuse

DOJ has actively promoted material reuse across its operations to reduce waste and extend the life of equipment and supplies by actively participating in the DGS Surplus Property & Reutilization (SPR) program following the requirements outlined in SAM 5-1. The leading teams for this strategy are the Asset Management Unit (AMU) and the DOJ Facilities Unit.

Office furniture, electronics, and surplus materials are routinely reassigned between divisions or refurbished for continued use, reducing the need for new purchases. DOJ also utilizes the DGS Property Reutilization Program to donate usable surplus items to other agencies and eligible organizations. During office moves or renovations, reuse of packing materials is prioritized as well as donation rather than disposal.

Planning Narrative for Department-Wide Material Reuse

To strengthen the department-wide material reuse efforts, the DOJ will expand internal systems that prioritize reuse over disposal or new procurement. DOJ will also increase staff awareness through updated guidance and training on reuse protocols.

In partnership with DGS, the department will continue leveraging the State's Property Reutilization Program to facilitate external transfers of surplus items to eligible agencies and organizations. Additionally, DOJ will continue incorporating reuse planning into office moves, renovations, and decommissions to maximize

recovery of usable materials. These steps will further support reduced waste, lower procurement costs, and reinforce DOJ's commitment to sustainable resource management.

Employee Waste and Recycling Training and Education

Pursuant to [AB 2812 \(Gordon, Chapter 530, Statutes of 2016\)](#), each state department is required to provide adequate receptacles, signage, education, and staffing, and arrange for recycling services consistent with existing recycling requirements for each office building of the state agency 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, the bill requires each state agency to include in its existing Report to CalRecycle a summary of the state agency's compliance with the act.

Reporting Narrative for Employee Waste and Recycle Training and Education

The California Department of Justice has implemented policies and encourages ongoing employee procurement training (Environmentally Preferable Purchasing, EPP and Recycled Content Product, RCP, policies) and makes education efforts to support proper waste sorting, recycling, and sustainable workplace practices.

Throughout the year, the department provides and distributes digital materials, posters, and signage across facilities to reinforce correct disposal behaviors and reduce contamination in recycling and compost streams.

The DOJ Sustainability Unit also coordinates with building managers to ensure consistent messaging and practices across facilities. These education efforts are critical to the success of the department's waste diversion goals and help create a culture of environmental responsibility across all levels of the organization.

Planning Narrative for Employee Waste and Recycle Training and Education

To improve waste diversion and support long-term sustainability goals, DOJ will expand and enhance its employee waste and recycling training in the coming years. The department plans to standardize training materials across all offices and develop a digital training module that can be easily accessed during onboarding and revisited annually. DOJ will also implement periodic refresher campaigns, with updated signage, email communications, and interactive activities to reinforce proper recycling, organics separation, and e-waste handling.

Site-specific training for facilities and custodial teams will be prioritized to ensure consistency in waste reduction procedures application. In addition, DOJ will introduce metrics to more categories to assess training effectiveness, such as tracking employee engagement levels. These planned efforts aim to build a strong culture of sustainability and ensure all staff are equipped to contribute to DOJ's waste reduction and recycling goals.

CHAPTER 8 - PROCUREMENT

Department Mission and Procurement

In efforts to meet the department's mission and adhere to state mandated goals for procurement of sustainable and recycled content products (RCP), the department has dedicated units to promote and implement the Environmentally Preferred Purchasing (EPP) and the State Agency Buy Recycled Campaign (SABRC) requirements. Consistently, DOJ has developed and implemented policies for all programs to opt for EPP products and recycled-content purchasing.

Recycled products or products containing recycled materials are substituted in place of requested products that do not contain any recycled materials or products that do not meet the recycled-content minimum requirements.

DOJ's EPP spend in 2024 is 95%, with paper and plastic products having the most potential within the EPP commodities. The top 5 SABRC categories for our department are paper products, metal products, plastic products, tires, and glass products. When products with recycled content are available for purchase, all programs will opt for those products. However, there are product categories that are more challenging because vendors do not offer the items with recycled content, or the quality of the products would have direct negative implications on our department's mission.

Environmentally Preferable Purchasing (EPP)

By CHAPTER 6. [Environmentally Preferable Purchasing](#) under the California Public Contract Code [Sections 12400 - 12404] (Chapter 6 added by Stats. 2002, Ch. 575, Sec. 2.), state agencies are required to purchase and use environmentally preferable products (EPP) that have a reduced effect on human health and the environment when compared with competing goods that serve the same purpose.

Reporting Narrative for Measure and Report Progress on EPP Spend

State agencies are required to purchase recycled-content products (RCP) and track and report those purchases. The postconsumer recycled content products are classified into 16 different categories as it is outlined in [AB-661](#).

The percentage of EPP reported purchases for FY 2023-24 is 95%. DOJ progress on EPP spend is reached by using the DGS EPP designated contracts for green commodities, following DGS [purchasing standards](#), and recognizing third-party certifications to achieve green purchases. Our department implemented Administrative Bulletin 23-17 that requires the substitution of non-recycled products with recycled content products whenever possible. Recycling requirements and procedures are outlined in the general provisions.

Our department has also implemented policies and procedures to opt for EPP products in replacement of requested products that do not meet criteria for EPP. The Contracts and Purchasing Unit (CPU) notifies bidders of EPP requirements by requesting them the Postconsumer Recycled-Content Certification (CalRecycle 74 form). The department's purchasing data is tracked via an internal database as well as in the State Contract & Procurement Registration System (SCPRS, Fi\$Cal). This provides capability to monitor spending and initiate checklists, as well as post-audit to ensure accuracy and completion.

Planning Narrative for Measure and Report Progress on EPP Spend

CPU monitors spending and initiate actions to address areas of improvement and report progress through the [State of California Green Buyer](#) webpage. Nevertheless, the department will have a working group investigate developing a timeline and a plan on implementation of a tracking system to measure, monitor, report, and oversee progress to increase EPP.

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

Table 8.1: Goods and Services Categories with the Greatest Potential to Green

Good or Service	2024 Total Spend (\$)	2024 Percent EPP Spend (%)	EPP Target (%)
Paper Products	\$467,120.94	74	75
Printing and Writing Paper	\$265,399.98	77	75
Plastic Products	\$2,077,566.73	40	75
Glass Products	\$17,427.27	0	75
Metal Products	\$2,566,785.68	77	75

Reporting Narrative on Table 8.1: Goods and Services with the Greatest Potential to Green

Goods and Services Categories with the Greatest Potential to Green are listed in Table 8.1. The top five commodities that the department buys that have the greatest potential to green are glass, paper, and plastic products within office supplies, and metal products, two of which meet the EPP 75% purchasing goal.

Planning Narrative on Table 8.1: Goods and Services with the Greatest Potential to Green

The department continues to require recycled content whenever possible. The categories that do not meet the goal are usually because the specific item isn't available with post-consumer recycled content (i.e., law books) or would be unsafe for the department's special agents (such as with the vehicle tires that must meet certain safety standards). The department currently does not have a plan yet and will have a working group look into developing a timeline and plan for committing to increase EPP spending percentage each year prioritizing goods and services that meet EPP ecolabels and RCP goods, and products with take back services.

DOJ currently does not transact in Fi\$Cal and only enters data in the SCPRS' system. Therefore, for the top Goods and Services Categories with the Greatest Potential to Green, CPU will gather this information based on UNSPC codes for the next report.

EPP BMPs

Reporting on EPP BMPs

EPP Best Management Practices (BMPS) are purchasing standards followed by our department. The Procurement Unit has implemented policies for all DOJ programs to opt for EPP products in replacement of requested products that do not meet criteria for EPP. The EPP goods with the most current information pertaining to our department are found on the [DGS Buying Green website](#).

The Green Buyer website tracks and offers transparency in agencies' performance for buying EPP goods. EPP goods are those identified as EPP when entered in SCPRS. These goods are available from statewide contracts or comply with DGS Purchasing Standards or SABRC. EPP goods are categorized by UNSPSC and compared with goods of the same category to establish the percent EPP spend as reported in SCPRS.

BMPs Worksheet for Reporting on EPP

Purchasing Standard	Standard Implemented Yes or No	Responsible Position
Paint (i.e., master painter's institute certified paint and recycled paint)	YES	Policy # Administrative Bulletin 23-17
IT goods (energy star rated: computers, monitors, and televisions DGS-52161505 Purchasing Standard or meet current specifications of statewide contracts)	YES	IT Manager I
Janitorial supplies and cleaners (EcoLogo, Greenseal certified cleaners, DGS_471318A Purchasing Standard compliant)	YES	Policy # Administrative Bulletin 23-17
Janitorial supplies, paper products (i.e., SABRC compliant and DGS_141117A Purchasing Standard Compliant)	YES	Policy # Administrative Bulletin 23-17
Desk Lamps (DGS-391115-A Purchasing Standard compliant)	YES	Policy # Administrative Bulletin 23-17
Office equipment (i.e., EPEAT compliant and EnergyStar rated printers, copiers, and DGS_432121A Purchasing Standard compliant for high-end multifunctional devices) and	YES	Policy # Administrative Bulletin 23-17
Paper products (i.e., Forest Stewardship Council certified, SABRC compliant copy paper, DGS-441200-A Purchasing Standard compliant)	YES	Policy # Administrative Bulletin 23-17
Remanufactured toner cartridges (available from PIA and statewide contract ID/Number: 1-15-75-61)	YES	Policy # Administrative Bulletin 23-17

Reporting Narrative for EPP BMPs

The department has developed policies and procedures to opt for EPP products in replacement of requested products that do not meet certain criteria for EPP such as SABRC for example. The department implements EPP BMPs by ensuring that all DOJ programs follow the Administrative Bulletin 23-17 as it is described above. Additionally, a CalRecycle 74 (Postconsumer Recycled-Content Certification) is required with each purchase.

For IT goods procurement, the **IT Contracts and Procurement Section (ITCPS)** which comprises of two units, the **IT Contracts and Procurement Unit (ITCPU)** and the **IT Software & CITPR Unit (ITSCU)**, requires the purchase of EPP IT goods as mandated by statewide contracts and continues to educate Programs regarding DGS' EPP purchasing guidance. The information on standards for buying laptops and monitors is available for all DOJ programs on the IT Purchase Assistance intranet web page which is updated as of September 11, 2025.

Dell model desktops, laptops, and monitors are the department's standard and may be requested based on the program's business need. The Department of General Services (DGS) negotiated multiple mandatory statewide contracts. Programs are not authorized to purchase non-standard models without Centralized IT Purchase Review (CITPR) and DGS exemption approvals. DOJ employees are assigned one computer for their use whether working in the office environment and/or telecommuting. The preferred computer is a laptop not a desktop. A justification must be indicated on the JUS 8890 Purchase Requisition Form when requesting a desktop and will be considered on a case-by-case basis.

Planning Narrative for EPP BMPs

The department will continue to enforce Administrative Bulletin 23-17 and substitute recycled products whenever possible and will continue to ensure that contractors provide IT goods that qualify as an Environmentally Preferable Purchase (EPP) in service contracts.

Reporting on EPP Training and Outreach

DOJ procurement staff attend EPP training through California Procurement and Contract Academy (CALPCA). It is a strategy to increase the purchase of EPP goods.

Table 8.2: 2024 EPP Basic Training Completions

CalHR Classification	Total Number of Staff	EPP Basic Training Completion	Percent Trained	2025 EPP Training Goal
SSA/AGPA	40	18	45%	100%
SSMI	9	5	55%	100%
SSMII	2	1	50%	100%
SSMIII	1	1	100%	100%

Table 8.3: 2024 EPP Executive Training Completions for Executive Members

Executive Member	Title	Date Completed
N/A		

Reporting Narrative on Tables 8.2-3: EPP Training and Education

Table 8.2 provides information regarding the department's CPU staff as well as the Sustainability Unit staff that is trained (SU: one SSMI, and two AGPAs also completed the EPP basic training in 2024). Additionally, CPU has recently developed a training tracker that the SSMLs use to track their staff's training requirements.

The trainings are tracked for all staff, such as buyers, approvers, and program managers, via a training coordinator by using an excel training tracker that is continuously updated. And even though there are no additional EPP related training and certifications available to staff beyond CalPCA EPP training courses, buyers are encouraged to take additional training that would expand their knowledge base.

The department promotes EPP internally and through its supply chain by informing them about the policies and procedures to opt for EPP products in replacement of requested products that do not meet certain criteria for EPP.

The department also provides suppliers the EPP state requirements for them to offer EPP goods and services. And buyers constantly reach out to suppliers to confirm if they have recycled content that meets these requirements.

Planning Narrative on Tables 8.2-3: EPP Training and Education

Buyer training is always in progress and buyers not in compliance will be required to complete the training within a year of employment. The strategic plan for the department is to implement the requirement for all staff to take the EPP training within the next year.

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

SABRC is a joint effort between CalRecycle and the Department of General Services (DGS) to implement state laws requiring state agencies and the Legislature to purchase recycled-content products (RCP) and track those

purchases. It complements the intent of the Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989, and Public Resources Code 4000 et al), which was enacted to reduce the amount of waste going to California's landfills. SABRC [Reports](#) are due by October 31st each year. ([PCC Section 12211](#))

Reporting on SABRC Progress

Table 8.4: State Agency Buy Recycled Campaign (SABRC) FY 23/24 Performance.

Product Category	SABRC Reportable Dollars	SABRC Compliant Dollars	% SABRC Compliant
75% Total Purchase Requirement	-	-	-
Building Finishes	0	0	N/A
Carpet	0	0	N/A
Erosion Control Products	0	0	N/A
Glass Products	\$17,427.27	0	0%
Lubricating Oils	0	0	N/A
Metal Products	\$2,566,785.68	\$1,966,015.15	77%
Paper Products	\$465,120.94	\$343,455.03	74%
Pavement Surfacing	0	0	N/A
Plastic Products	\$2,077,566.73	\$830,498.82	40%
Printing and Writing Paper	\$265,399.98	\$203,761.45	77%
Soil Amendments and Soil Toppings	0	0	N/A
Textiles	\$87,130.83	\$87,104.48	100%
Tire Derived Products	\$2,044.80	0	0%
50% Total Purchase Requirement	-	-	-
Antifreeze	0	0	N/A
Paint	0	0	N/A
Tires	\$25,546.26	\$25,546.26	100%

Reporting Narrative for Table 8.4: Measure and Report SABRC Progress

The 2023-2024 SABRC report in Table 6.4 that purchases for paper-based office supplies, metal, textile products and tires meet or overpass the 75% spending goal for SABRC compliance. However, other eligible product categories such as paper, plastic, glass, and tire-derived did not meet the minimum percentage total spend. The department submits its annual SABRC report to CalRecycle and information about the most recent [DOJ 2023-24 SABRC report](#) is available on their website.

Our department enforces AB 23-17, which requires products and content be substituted for non-recycled items whenever possible. Additionally, the department's procurement unit prioritizes vendors offering SABRC-compliant products; educate staff on the environmental benefit and compliance requirements of recycled content purchasing; continuously monitor procurement data to identify gaps and ensure early corrective action; and Increase outreach to sections with low compliance for further training.

An additional strategy our department employs to increase the state agency or large state facility procurement of recycled content products is by establishing procurement reviews with compliance checkpoints.

Planning Narrative for Table 8.4: Measure and Report SABRC Progress

The department will make further efforts to achieve all SABRC purchasing requirements. The plan to achieve this in the future is by working with suppliers to identify compliant product alternatives and audit procurement to identify areas of improvement.

The procurement unit will continue working with facilities and the fleet team to report purchasing in other eligible categories such as carpet, paint, building finishes, antifreeze, and lubricating oils.

Our department plans to implement mandatory recycled-content considerations in all purchasing decisions and establish procurement reviews with compliance checkpoints to increase the large state facility's procurement of recycled-content products.

Reducing Impacts

Sustainable Operations is a commitment to reducing the environmental impact of the department's purchased goods and services. In this section the department's efforts on reducing these impacts.

Reporting Narrative for Reducing Impacts

Department will continue to enforce Administrative Bulletin 23-17 and substitute recycled products whenever possible. The procurement unit ensures that contractors provide EPP goods and meets SABRC requirements in service contracts by following the protocol by requiring bidders and contractors the Postconsumer Recycled-Content Certification (CalRecycle 74) with each purchase or service.

CHAPTER 9 – FUNDING OPPORTUNITIES

DOJ intends to pursue any financing available to state departments. The Sustainability Unit is in the process of assessing DOJ's sustainability needs and searching for funding opportunities to apply adaptive approaches and plans on researching and developing more policies to help the Department increase sustainability efforts and track progress.

Funding Opportunity Climate Change Adaptation

Chapter 1 reviews DOJ's Climate Change adaptation strategies and plans needed.

In a changing climate, DOJ practices climate adaptation strategies for its facilities to help reduce climate risks. Regarding new construction, leases, and landscape/facility projects, DOJ considers temperature changes (including extreme heat events), urban heat island effect, drought and wildfires, precipitation changes (including extreme precipitation events); and sea level rise (e.g. flood risk).

The information included in Table 9.1 below was collected from Chapter 1 and includes climate change projects that have been identified.

Table 9.1: Climate Change Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS-ALL LABORATORIES	Energy Efficiency Upgrades	ESCO Funding	September 2025	December 2026
BFS-ALL LABORATORIES	Landscape Retrofit	TBD	TBD	TBD

Funding Opportunities for ZEVs and EV Infrastructure

Chapter 2 describes DOJ's progress and needs in integrating ZEVs into its vehicle fleet, installing additional EV infrastructure, and it also identifies the requirements to vehicle charging policy development (for employees and public use), installing telematics, and planning for hydrogen fuel opportunities. This chapter requires

policy development, vehicle purchasing and EV infrastructure projects. Chapter 2 also identifies the department's needs and priorities.

DOJ does have five L1 EV chargers already at the Santa Rosa, Santa Barbara, Fresno, Ripon, Redding labs. DOJ received these five EV Arcs from DGS in 2022. EV Arcs are mobile charging stations powered by solar and are completely off-grid. Each charging Arc currently can charge up to two vehicles at a time and provide some minimal shading for the parking lot. The EV Arcs also act as an energy source in case extreme natural disasters or emergency events occur.

The Arcs are a good start for EV infrastructure. The department leaves the operation to each DOJ program occupying the facility where the chargers are located. Each program sets their policy and/or time-limit. Currently there are no cost recovery policies in place since these are solar powered EV chargers. Further research in best practices will need to take place as staffing resources become available. This is a low priority project, but will rise as demand for EV charging use grows.

DOJ hopes to install more EV infrastructure for the fleet's future ZEVs. Sustainability has identified potential electric vehicle supply equipment (EVSE) funding opportunities for EVSE implementation projects, however, currently the department only has one plug-in hybrid vehicle in DOJ's fleet. Furthermore, there are no EV's on the 24/25 Fleet Acquisition Plan (FAP) and 99% of vehicles on the FAP is generally sworn exempt vehicles. Thus, moving forward, the EV priority projects will follow the EV purchasing plans closely to implement the EV charging infrastructure needs before any requested ZEV's are approved.

The information included in Table 9.2 below was collected from Chapter 2.

Table 9.2: EV Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS-ALL LABORATORIES	EVSE	5-Year Infrastructure Plan	TBD	TBD

Funding Opportunities for Building Energy Conservation and Efficiency

Chapter 3 reviews DOJ's progress in meeting the required Energy conservation goals through BMPs, installing energy efficient equipment and renewable energy systems as well as enrolling in the Demand Response program.

DOJ intends to pursue any financing available to state departments to improve energy efficiency. The department is currently working with PG&E and outside vendors to evaluate the laboratory sites for energy savings and retrofits. If participation in the Golden State Financial Marketplace (GS \$Mart) program is determined to be beneficial, DOJ intends to bundle up these projects in Energy Savings Performance Contracts (ESPCs) for the identified equipment and measures needed at all labs and look for further energy service companies (ESCO) funding.

The information included in Table 9.3 below was collected from Chapter 3.

Table 9.3: Building Energy Conservation and Efficiency Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS–ALL LABORATORIES	Energy Efficiency Upgrades	ESCO Funding	September 2025	December 2026

Funding Opportunities for Decarbonization

Chapter 4 reviews DOJ's progress in meeting the required decarbonization goals. This chapter is DOJ's Decarbonization Plan that has been formulated using the information provided by the DGS' contractor Glumac. Chapter 4 also identifies the department's needs and priority projects and timeline to complete these projects in order to achieve zero emissions by 2035.

Projects include Energy Efficiency Upgrades and electrification measures. The initial project includes LED Lighting retrofits, HVAC/boiler/water heater upgrades, for all labs and installing on-site renewable energy solutions such as solar to four BFS labs.

The information included in table 9.4 was collected from Chapter 4.

Table 9.4: Funding Opportunities for Decarbonization

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS–ALL LABORATORIES	Energy Efficiency Upgrades and On-Site Renewable Energy (4 sites)	ESCO Funding	September 2025	December 2026
BFS–ALL LABORATORIES	Decarbonization Plan	TBD	January 2026	December 2035

Funding Opportunities for Water Conservation and Efficiency

Chapter 5 reviews DOJ's progress in meeting the required water conservation goals which require using BMPs, having water saving fixtures and appliances, having appropriate landscaping and irrigation and appropriately trained and certified staff. Chapter 5 also identifies the department's needs and priorities.

DOJ is currently working with a DGS contractor, Centrica, on retrofitting sinks, toilets and urinals for all eight laboratory facilities. These priorities are relatively low but were added on to the scope of the energy efficiency project with DGS in collaboration with PG&E and Centrica to maximize return on investment. Furthermore, the department is also working on water conservation planning through landscaping design and retrofits with drought tolerant native plants with the Department of Water Resources (DWR) and DGS assistance.

The information included in table 9.5 below was collected from Chapter 5.

Table 9.5: Water Conservation and Efficiency Priority Projects

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS–ALL LABORATORIES	WC Operations and Lab Sink Fixtures Upgrades	ESCO Funding	September 2025	December 2026
BFS–ALL LABORATORIES	Landscape Retrofit	TBD	TBD	TBD

Funding Opportunities for Facilities Construction and Maintenance

Chapter 6 reviews the department's sustainable operations. DOJ's Facilities Construction and Maintenance include achieving LEED Certification for existing buildings, maximizing daylighting in new construction, implementing Indoor Environmental Quality (IEQ), purchasing and complying with the Green Seal Cleaning Products, HVAC operational ventilation; Section 142.3 Labor Code and Integrated Pest Management (IPM) protocols from contracted pest management companies.

The information included in table 9.6 below was collected from Chapter 6.

Table 9.6: Facilities Construction and Maintenance Priorities

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
BFS–ALL LABORATORIES	Need Special Equipment	Existing Maintenance Budget	January 2025	December 2030

Funding Opportunities for Waste Management and Recycling

Chapter 7 reviews DOJ's progress in meeting the required waste management and recycling goals. DOJ incorporates green practices into its operations to reduce entity-wide greenhouse gas (GHG) emissions by establishing contracts with vendors who follow sustainable practice and green equipment, ensuring wide universal waste contracts are in place to promote the proper recycling, and improve waste diversion and support long term sustainability goals by expanding

and enhancing its employee waste and recycling training. This chapter also identifies DOJ's needs and priorities.

The information included in table 9.7 was collected from Chapter 7.

Table 9.7: Waste Management and Recycling Priorities

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
All Buildings – Battery Recycling and organics collection and diversion.	Need Special Equipment	Existing Maintenance Budget	July 2025	June 2026

Funding Opportunities for Procurement

Chapter 8 reviews DOJ's progress in meeting the required procurement goals. DOJ has dedicated units to promote and implement procedures for procurement of sustainable and recycled content products (RCP), Environmentally Preferred Purchasing (EPP), and the State Agency Buy Recycled Campaign (SABRC) requirements. This chapter also identifies DOJ's needs and priorities.

DOJ has developed and implemented policies for all programs and procurement staff to increase spending on goods and services with the greatest potential to Green, ensuring that contractors provide IT goods that qualify as well as encouraging the EPP training and education for procurement staff, and planning to require training for all staff and track who completes the California Procurement and Contract Academy (CALPCA) training.

The information included in table 9.8 was collected from Chapter 8.

Table 9.8: Procurement Priorities

Building Name	Project	Funding Source	Est. Begin Date	Est. Completion Date
EPP spend	Need Procedure Update	Existing Personnel Budget	TBD	TBD
All DOJ EPP training	Need Staff Training	Existing Training Budget	TBD	TBD

Full Life Cycle Cost Accounting

Life-cycle cost analysis (LCCA) is an economic method of project evaluation in which all costs arising from owning, operating, maintaining, and disposing of a project are considered important to the decision. LCCA is well suited to the economic evaluation of design alternatives that satisfy a required performance level but may have differing investment, operating, maintenance, or repair costs, and different life spans. It is particularly relevant to the evaluation of investments where high initial costs are traded for reduced future cost obligations.

EO B-30-15 States "agencies shall take climate change into account in their planning and investment decisions and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives."

Reporting on Life Cycle Cost Accounting

NO INFRASTRUCTURE INVESTMENTS

DOJ does not have a life cycle cost accounting process in place at the moment, and this is something that will be addressed in the near future. Lifecycle considerations are employed by DGS in new building design and operations and other built infrastructure. DGS calculates these costs on DOJ's behalf.

Planning for Implementing Life Cycle Cost Accounting

NO INFRASTRUCTURE INVESTMENTS

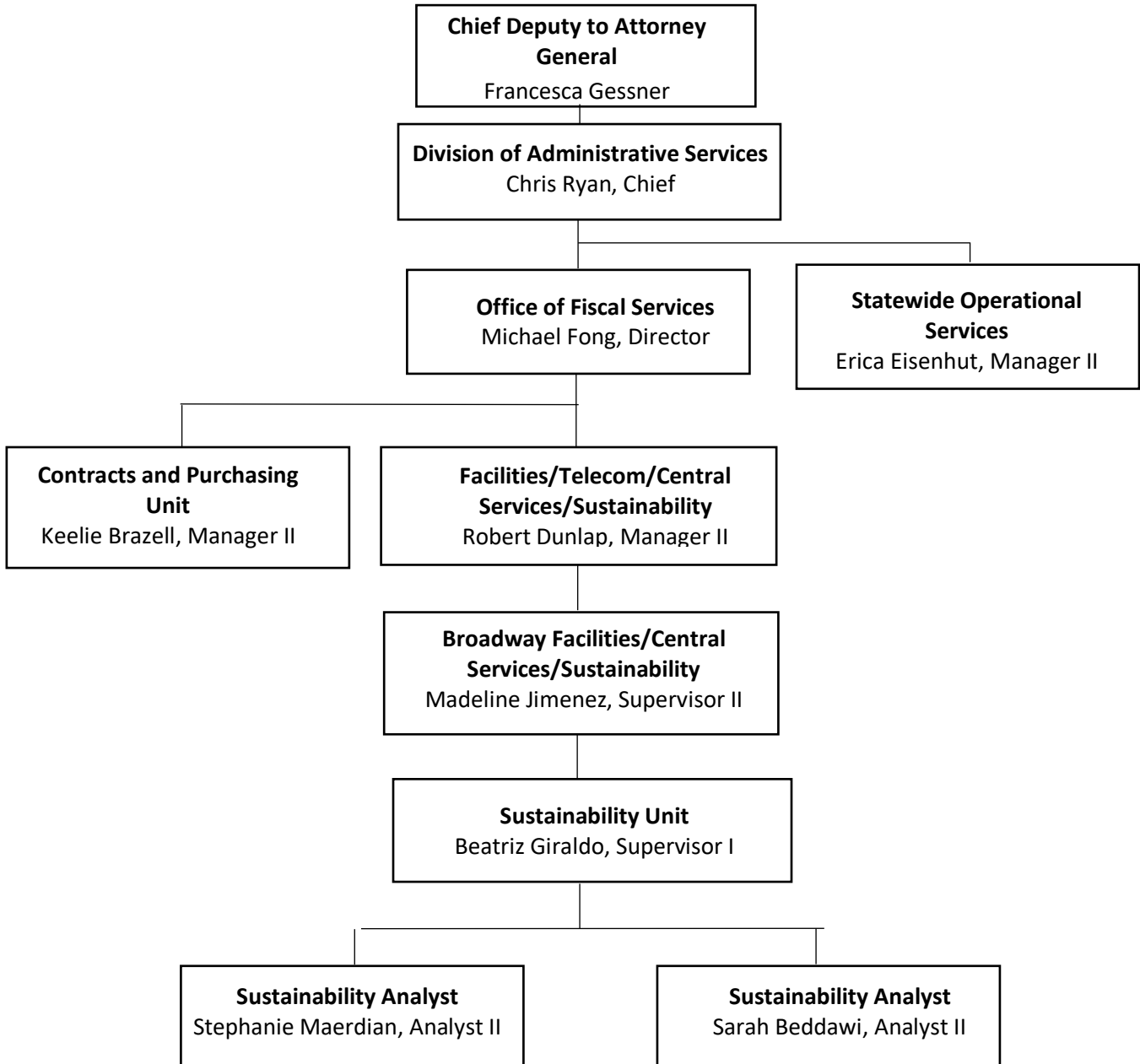
DOJ will use LCCA in future investments as a tool to identify the most cost-effective alternatives that meet the performance requirements and make decisions that will consider initial and long-term cost.

CHAPTER 10 – PUBLIC EDUCATION AND OUTREACH

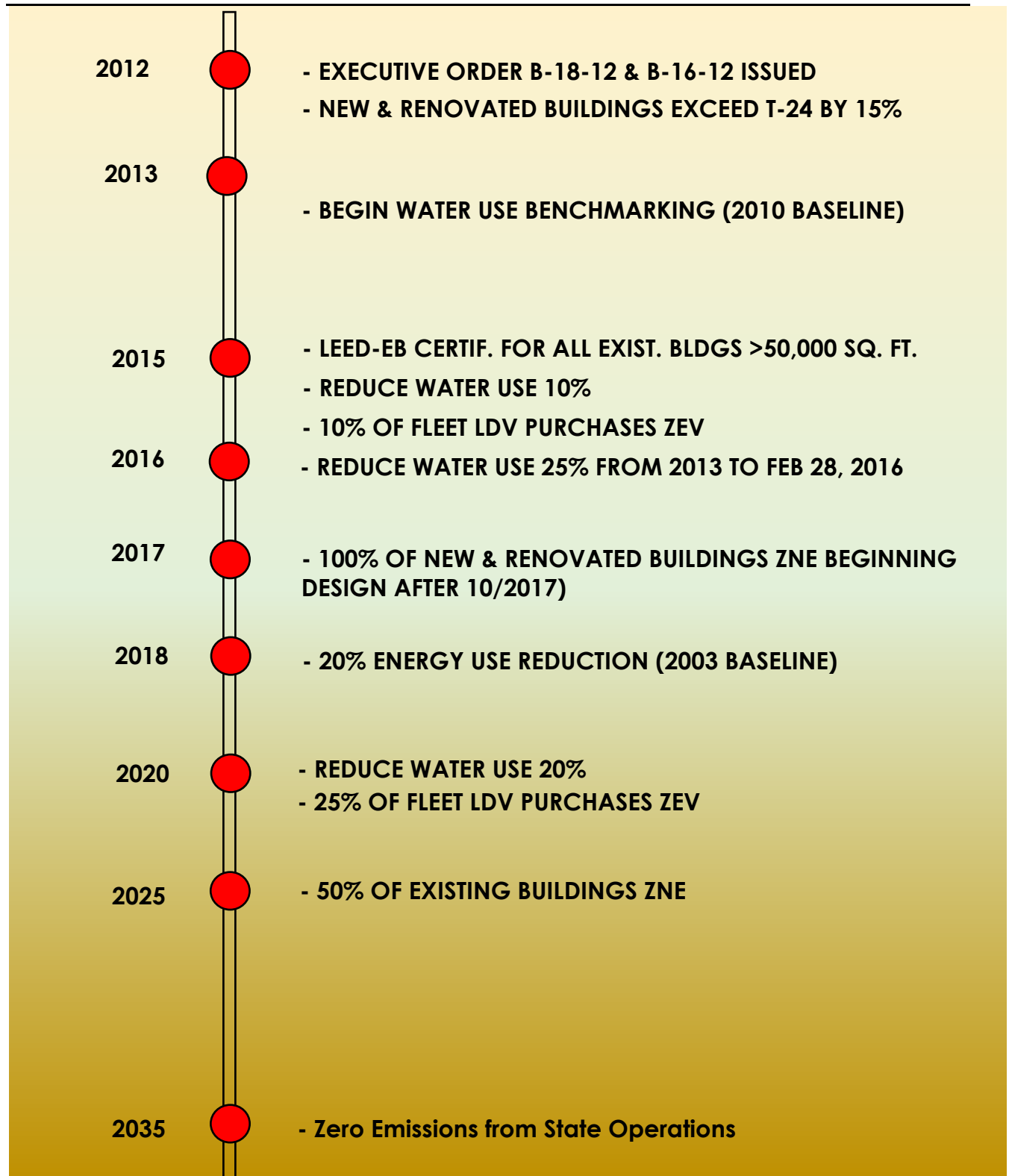
The department currently does not participate in public outreach programs pertaining to sustainability efforts, however, information and updates regarding DOJ's efforts and progress to implement sustainable operations and practices are available to the public at the Green California website by following these links for the [DOJ Sustainability Roadmap](#), and the [Green Buildings](#), [Green Fleet](#), and [Green Buyer](#) strategies.

Furthermore, DOJ does inform its employees ways to reduce paper use, organic waste, battery recycling, and energy use best management practices as well as it has the bulletins, newsletters, manuals, and reports related to sustainability policies available for all DOJ employees in the intranet system.

APPENDIX A – SUSTAINABILITY LEADERSHIP



APPENDIX B - SUSTAINABILITY MILESTONES & TIMELINE



APPENDIX C – ACRONYMS

ACRONYM	DEFINITION
AB	Assembly Bill
ADR	Automated Demand Response
AMB	Asset Management Branch (at DGS)
BEV	Battery Electric Vehicle
BMP	Best Management Practices
CA	California
CALGREEN	California Green Building Code (Title 24, Part 11)
CEC	California Energy Commission
CRT	Cathode Ray Tube
DGS	Department Of General Services
DWR	Department Of Water Resources
EPD	Environmental Product Declarations
EHT	Extreme Heat Threshold
EMS	Energy Management System (Aka EMCS)
EMCS	Energy Management Control System (Aka EMS)
EO	Executive Order
EPP	Environmentally Preferable Purchasing
ESCO	Energy Service Company
ESPM	Energy Star Portfolio Manager
ETS	Enterprise Technology Solutions (A Division At DGS)
EUI	Energy Use Intensity (Source Kbtu/Sq. Ft.)
EVSE	Electric Vehicle Supply Equipment (Charging Equipment)
FMD	Facilities Management Division (A Division At DGS)
GCM	Global Circulation Model
GHG	Greenhouse Gas

GHGe	Greenhouse Gas Emissions
GSP	Groundwater Sustainability Plan
HD	Heavy Duty Vehicles
IEQ	Indoor Environmental Quality
kBTU	Thousand British Thermal Units (Unit of Energy)
LCM	The Landscape Coefficient Method
LD	Light Duty Vehicles
LEED	Leadership In Energy and Environmental Design
MAWA	Maximum Applied Water Allowance
MD	Medium Duty Vehicles
MM	Management Memo
MPG	Miles per Gallon
MWELO	Model Water Efficient Landscape Ordinance
OBAS	Office Of Business and Acquisition Services (At DGS)
OBF	On-Bill Financing
OFAM	Office Of Fleet and Asset Management (At DGS)
OS	Office Of Sustainability (At DGS)
PHEV	Plug-in Hybrid Electric Vehicle
PMDB	Project Management and Development Branch (At DGS)
PPA	Power Purchase Agreement
PUE	Power Usage Effectiveness
PV	Photovoltaic Vehicles
RCP	Representative Concentration Pathway
SABRC	State Agency Buy Recycled Campaign
SAM	State Administrative Manual
SB	Senate Bill
SCM	State Contracting Manual

SGA	Sustainable Groundwater Agency
SGMA	Sustainable Groundwater Management Act
SUV	Sport Utility Vehicle
WMC	Water Management Coordinator
VHSP(s)	Vehicle Home Storage Permits
WUCOLS	Water Use Classifications of Landscape Species
ZEV	Zero-Emission Vehicle
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, gases, or any substance other than the intended potable water) into the distribution pipes of the potable water system.

Backflow 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.

Building Best Management Practices (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).

Cooling Degree Day (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 degrees Fahrenheit, 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.

Critically Over drafted - 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.

Erosion Control Product – includes products such as compost filter socks, compost blankets and hydraulic mulch.

Environmental Product Declarations (EPD) - third-party verified reports that detail a product's impacts on the environment. The [International Standards Organization \(ISO\) 14025](#) defines EPDs as a Type III declaration that “quantifies environmental information on the life cycle of a product to enable comparisons between products fulfilling the same function.” EPDs can be product-specific, factory-specific, or industry-wide.

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% 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% or more of a lawn's yearly nitrogen requirements.

Heating Degree Day (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 degrees Fahrenheit, 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 (LCM) - 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.

Makeup 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 recycles (cooling tower blowdown recycle), well water, or any other surface water source.

Model Water Efficient Landscape Ordinance (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 soil topping consisting of 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)).

Nonpurchased 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 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.

Soil Amendments and Soil Toppings - Soil amendments include adding ingredients such as sulfur, or sand to change the original soil, soil conditioner for potting or plant mix, Soil toppings include organic materials used for water conservation; organic materials such as biosolids or other comparable substitutes such as livestock, horse, or other animal manure, food residues or fish processing byproducts; mechanical breakdown of materials.

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 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% for droughts lasting up to three years.

Water Use Classification of Landscape Species (WUCOLS)- 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 \(ucdavis.edu\)](http://ucdavis.edu/wucols)

Zero Energy Buildings - A zero-energy building is "an energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy". Department of Energy (DOE), September 2015.

APPENDIX E – DEPARTMENT STAKEHOLDERS

Climate Change Adaptation

Understanding Climate Risk at Existing Facilities	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Understanding Climate Risk at Planned Facilities	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Integrating Climate Change into Department Planning and Funding Programs	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Measuring and Tracking Progress	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Zero Emission Vehicles

Incorporating ZEVs Into the Department Fleet	
Statewide Operational Services Asset Management Unit (Fleet)	Nick Getty, Supervisor I Sue Wildanger, Analyst II

Telematics	
Statewide Operational Services Asset Management Unit (Fleet)	Nick Getty, Supervisor I Sue Wildanger, Analyst II

Public Safety Exemption	
Statewide Operational Services Asset Management Unit (Fleet)	Nick Getty, Supervisor I Sue Wildanger, Analyst II

Outside Funding Sources for ZEV Infrastructure	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Hydrogen Fueling Infrastructure	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Comprehensive Facility Site and Infrastructure Assessments	
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

EVSE Construction Plan	
Statewide Operational Services/Asset Management Unit (Fleet)	Nick Getty, Supervisor I Sue Wildanger, AGPA
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

EVSE Operation	
Statewide Operational Services	Javier Nunez, Analyst I Parking & Forms Coordinator
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Energy

Zero Net Energy (ZNE)	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

New Construction Exceeds Title 24 by 15%	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Existing Buildings Energy Efficiency	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Energy Savings Projects	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Demand Response	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Renewable Energy	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Monitoring-Based Commissioning (MBCx)	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Building Controls	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Decarbonization

Greenhouse Gas Emissions	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Water Efficiency and Conservation

Indoor Water Efficiency Projects in Progress First initiative	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Boilers and Cooling Systems Projects in Progress	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Landscaping Hardware Water Efficiency Projects in Progress	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Living Landscaping Water Efficiency Projects in Progress	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Buildings with Urban Water Shortage Contingency Plans in Progress	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Facilities Construction and Operations

Building Design and Construction	
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

LEED for Existing Buildings Operations and Maintenance	
N/A	

Indoor Environmental Quality	
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Integrated Pest Management	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Fossil Fuel Landscaping Equipment Replacement	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Location Efficiency	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Facilities Unit	Robert Dunlap, Manager II; Madeline Jimenez, Supervisor II

Waste Management and Recycling

Waste and Recycling Programs	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

SARC Report	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Recycling Program and Practices	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Organics Recycling	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II

Hazardous Waste Materials	
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Universal Waste Program	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Division of Law Enforcement/Bureau of Forensic Services	BFS Senior Industrial Hygienist

Material Exchange Programs	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Waste Prevention Program	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Reuse Program	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Employee Waste and Recycling Training and Education	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Procurement

Goods and Services with the Greatest Potential to Green	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

EPP BMPs	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II
IT Contracts and Procurement Unit (ITCPU)	Diane Leung, Information Technology Manager I Jessica RosaRobinson, Information Technology Supervisor II

Reporting on EPP Training and Outreach	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Reporting on State Agency Buy Recycled Campaign	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

Reducing Impacts	
Sustainability Unit	Beatriz Giraldo, Supervisor I Sarah Beddawi, Sustainability Analyst II Stephanie Maerdian, Sustainability Analyst II
Contracts and Purchasing Unit	Keelie Brazell, Manager II

APPENDIX F – SUSTAINABILITY STATUTORY REQUIREMENTS, EXECUTIVE ORDERS, AND MANAGEMENT MEMOS REFERENCES

The following legislative actions, executive orders, State Administrative Manual (SAM) Management Memos, resources, and guidance documents provide the sustainability criteria, requirements, and targets tracked and reported herein.

Recent Legislative Actions

Several pieces of legislation were signed in 2023 that codified several elements of the executive orders, or provided further requirements included in the policies. These include the following:

[Senate Bill \(SB\) 416 \(Laird, 2023\)](#): Requires all new building and major renovation projects larger than 10,000 gross square feet undertaken by state agencies, and for which the project schematic design documents are initiated by the state agency on or after January 1, 2024, to obtain the Leadership in Energy and Environmental Design or “LEED” Gold or higher certification, except as provided. Requires the state agency to obtain LEED Silver certification if the state agency concerned makes a finding that achieving LEED Gold conflicts with critical operational or security requirements, is demonstrably cost ineffective, or conflicts with California Building Code requirements. Authorizes certification to an alternative equivalent or higher rating system or standard, if any, only when approved by the Director of General Services.

[Senate Bill SB 837 \(Archuleta, 2023\)](#): The State Energy Resources Conservation and Development Commission as of January 1, 2024, shall consider revising the definition of “conditioned space, indirectly” for purposes of those regulations to include sealed and unvented attics, where the space is enclosed by the primary thermal and air barrier and directly adjoining conditioned space.

[Assembly Bill \(AB\) 43 \(Holden, 2023\)](#): Authorizes the state board to establish an embodied carbon trading system. Authorizes the state board to integrate the embodied carbon trading system into the framework for measuring the average carbon intensity of the materials used in the construction of new buildings, as described above, on or before December 31, 2026, and to implement the system on and after January 1, 2029. Authorizes the state board to adopt rules and regulations for the credit allocation approach, the anticipated carbon price in the scheme, and trading periods. Requires the state board to periodically review and update its emission reporting and compliance standard requirements, as necessary.

Other Significant Legislative Actions

- [Assembly Bill \(AB\) 661 \(Bennet, 2022\)](#): Requires a state agency, if fitness and quality are equal, to purchase recycled products instead of non-recycled products whenever recycled products are available at no more than 10% greater total cost than non-recycled products, and specified circumstances exist. Requires the Department of Resources Recycling and Recovery, in concurrence with the DGS and in consultation with impacted agencies, to update a list of products and minimum recycled content percentages, as determined to be appropriate, commencing January 1, 2026, and every 3 years thereafter. Requires the Department of Resources Recycling and Recovery to report a state agency that does not meet SABRC purchasing requirements in each product category to the DGS. The bill requires all state agency procurement and contracting officers, or their designees, to participate in mandatory annual training, as prescribed, conducted by the Department of Resources Recycling and Recovery. The bill would require the DGS and the Prison Industry Authority to prioritize the use of recycled content products.
- [Senate Bill \(SB\) 1020 \(2022\)](#): *-Clean Energy, Jobs, and Affordability Act of 2022*. States that eligible renewable energy resources and zero-carbon resources supply 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% of all retail sales of electricity to California end-use customers by December 31, 2040, 100% of all retail sales of electricity to California end-use customers by December 31, 2045, and 100% of electricity procured to serve all state agencies by December 31, 2035, as specified.
- [Assembly Bill \(AB\) 2446 \(Holden, 2022\)](#): Require the Air Resources Board, by July 1, 2025, to develop, in consultation with specified stakeholders, a framework for measuring and then reducing the average carbon intensity of the materials used in the construction of new buildings, including those for residential uses. The bill would require the framework to include a comprehensive strategy for the state's building sector to achieve a 40% net reduction in greenhouse gas emissions of building materials, as determined from a baseline calculated using a certain 2026 report, if that report is adequate, or as specified. The bill would require the strategy to achieve this target as soon as possible, but no later than December 31, 2035, with an interim target of 20% net reduction by December 31, 2030.
- [Senate Bill SB 1203 \(Becker, 2021\)](#): Requires the Department of General Services, in consultation with the state board, and to the extent feasible, to publish, on its internet website or other publicly available location, an inventory of the greenhouse gas emissions of state agencies for the prior calendar year, on or before July 1, 2024, and annually thereafter until the goal has been achieved. Requires DGS to develop and publish a plan, on or before January 1, 2026, that describes required actions and investments for achieving net-zero emissions of

greenhouse gases and an estimate of the costs associated with the planned actions and ensure that the required actions and investments are incorporated into the sustainability roadmaps of all state agencies. Requires the department to update the plan beginning June 30, 2028, and every 2 years thereafter until the goal has been achieved. Requires that, subject to an appropriation by the Legislature, the department provides information, training, coordination, best practices, and other technical assistance to state agencies to help those state agencies implement the required actions and investments. Requires state agencies to incorporate the required actions and investments into their future budget proposals, as provided. Requires the department, beginning December 31, 2027, and biennially thereafter until the achievement of the above stated goal, to report to the Legislature on progress toward achieving that goal, as provided.

- [Senate Bill SB 1335 \(Allen, 2018\)](#): Enacts the Sustainable Packaging for the State of California Act of 2018, which would prohibit a food service facility located in a state-owned facility, operating on or acting as a concessionaire on state property, or under contract to provide food service to a state agency from dispensing prepared food using a type of food service packaging unless the type of food service packaging is on a list that CalRecycle publishes and maintains on its Internet Web site that contains types of approved food service packaging that are reusable, recyclable, or compostable.
- [Assembly Bill \(AB\) 739 \(Chau, 2017\)](#): Requires, beginning December 31, 2025, at least 15% of newly purchased vehicles with a gross vehicle weight rating of 19,000 pounds or more purchased by the department and other state entities for the state fleet to be zero emission, and beginning December 31, 2030, at least 30% of those vehicles to be zero emission. The bill would require, if the department finds, in a public hearing on or after December 31, 2026, that it cannot meet the needs of the state while meeting this requirement, the department to disclose this finding at the hearing and to the Legislature.
- [Assembly Bill \(AB\) 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)
- [Assembly Bill AB 2812 \(Gordon, 2016\)](#): Provide adequate receptacles, signage, education, staffing, and arrange for recycling services. Report annually on how each of these is being implemented

- [Senate Bill SB 1383 \(Lara, 2016\)](#): 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.
- [Assembly Bill \(AB\) 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)
- [Senate Bill \(SB\) 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)
- [Assembly Bill AB 1826 \(Chesbro, 2014\)](#): Implement mandatory commercial organics recycling program (if meet threshold). Report annually on organics recycling program.
- [Assembly Bill 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.
- [Assembly Bill AB 341 \(Chesbro, 2011\)](#): Implement mandatory commercial recycling program (if meet threshold). Report annually on recycling program.
- [Senate Bill SB 1106 \(Lowenthal, 2005\)](#): Have at least one designated waste management coordinator. Report annually on how your designated waste and recycling coordinator meets the requirement.
- [Assembly Bill AB 75 \(Strom-Marting, 1999\)](#): Implement an integrated waste management program and achieve 50 percent disposal reduction target. State Agencies report annually on waste management program.

- **Assembly Bill (AB) 4:** Passed in 1989. The State Agency Buy Recycled Campaign (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 non-recycled products, and submit plans for meeting the annual goals for purchasing recycled-content products.

Executive Orders

The governor issued the following executive order relevant to chapters of this roadmap:

- **[Executive Order B-16-12](#)**
EO B-16-12 directs state agencies to integrate zero-emission vehicles (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.
- **[Executive Order B-18-12](#)**
EO B-18-12 and the companion *Green Building Action Plan* require state agencies to reduce the environmental impacts of state operations by reducing greenhouse gas emissions, managing energy and water use, improving indoor air quality, generating on-site renewable energy when feasible, implementing environmentally preferable purchasing, 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 into the Energy Star Portfolio Manager (ESPM).
- **[Executive Order 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.
- **[Executive Order 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 GHG emission reduction target of 40 percent below 1990 levels by 2030 and reaffirms California's intent to reduce GHG emissions 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 GHG emissions; prioritize natural infrastructure; and protect the state's most vulnerable populations.

- [Executive Order B-37-16](#)

- The Department of Water Resources (Department) shall work with the Water Board to develop new water use targets as part of a permanent framework for urban water agencies. These new water use targets shall build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. (Senate Bill No. 7 (7th Extraordinary Session, 2009-2010).) These water-use targets shall be customized to the unique conditions of each water agency, shall generate more statewide water conservation than existing requirements, and shall be based on strengthened standards for:
 - a. Indoor residential per capita water use.
 - b. Outdoor irrigation, in a manner that incorporates landscape area, local climate, and new satellite imagery data.
 - c. Commercial, industrial, and institutional water use; and
 - d. Water lost through leaks.

The Department shall strengthen requirements for urban Water Shortage Contingency Plans, which urban water agencies are required to maintain. These updated requirements shall include adequate actions to respond to droughts lasting at least five years, as well as more frequent and severe periods of drought. While remaining customized according to local conditions, the updated requirements shall also create common statewide standards so that these plans can be quickly utilized during this and any future droughts.

State Administrative Manual & Management Memos

The following section of the State Administrative Manual (SAM), and associated Management Memos (MMs) currently impose sustainability requirements on the department under the governor's executive authority:

- [SAM Chapter 1800](#): Energy and Sustainability
- [SAM Chapter 1900](#)
- [SAM Chapter 4100](#)
- [SAM Chapter 3600, Section 3627](#)
- [MM 15-03](#): Minimum Fuel Economy Standards Policy
- [MM 16-07](#): Zero-Emission Vehicle Purchasing and EVSE Infrastructure Requirements

State-wide Action Plans

- [2016 Zero-Emission Vehicle 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 light-duty vehicles by 2025.

- [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.

- [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 GHG by 2030 and 80 percent reduction by 2035.

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.
- [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 Executive Order 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 greenhouse gas emissions 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.
- **EDP Compliance Guide** Environmental Product Declarations (EPD) are third-party verified reports that detail a product's impact on the environment.

Tables of Applicable Statutory Requirements, Executive Orders and SAM and Management Memos

Table F-1 Statutory Requirements, Executive Orders, Management Memos, and the State Administrative Manual and the Applicable Roadmap Chapters

Legislation, Executive Orders, & Management Memos	Year Enacted	Climate Adaptation	ZEV	Energy	Decarb	Water	Facilities	Waste	Procurement
SB 32	2015	X			X				
SB 246	2015	X							
SB 416	2023						X		
SB 837	2023						X		
SB 1016	2008						X		
SB 1020	2022	X		X	X				
SB 1106	2005							X	
SB 1168	2014					X			
SB 1203	2021	X			X				
SB 1319	2014					X			
SB 1335	2018							X	
AB 32	2006	X	X		X				
AB 43	2023	X			X				
AB 75	1999							X	
AB 197	2016	X			X				
AB 262	2017								X
AB 341	2011						X	X	
AB 498	2002								X
AB 661	2022							X	
AB 739	2017		X						
AB 939	2021							X	
AB 1343	2010							X	
AB 1482	2015	X							
AB 1739	2014					X			
AB 1826	2014							X	
AB 2396	2016						X	X	
AB 2446	2022				X				
AB 2800	2016	X							
AB 2812	2016						X		
EO B-16-12	2012		X				X		
EO B-18-12	2015		X	X		X	X		
EO B-29-15	2015					X			

Legislation, Executive Orders, & Management Memos	Year Enacted	Climate Adaptation	ZEV	Energy	Decarb	Water	Facilities	Waste	Procurment
EO B-30-15	2015	X	X	X			X		
EO B-37-16	2016					X			
MM 15-03:	2015		X						
MM 16-07	2016		X						
Public Resources Code 25722.8	2001		X						

Table F-2 Action Plans, and State Resources and Guidance Documents and the Applicable Roadmap Chapters

Action Plans, and State Resources and Guidance Documents	Year	Climate Adaptation	ZEV	Energy	Decarb	Water	Facilities	Waste	Procurment
2016 ZEV Action Plan	2016		X						
Cal-Adapt website		X							
California's 4th Climate Change Assessment	2018	X							
Planning and Investing for a Resilient California	<u>2018</u>	X							
Safeguarding California	<u>2014</u>	X							

APPENDIX G LIST OF TABLES AND GRAPHS

Table 1.1: Top 5-10 Facilities that Will Experience the Largest Increase in Extreme Heat Events	17
Table 1.2a: Top 5-10 Facilities Most Affected by Changing Temperature – Annual Mean Max. Temp	18
Table 1.2b: Top 5-10 Facilities Most Affected by Changing Temperature - Annual Mean Min Temp	18
Table 1.3a: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Heating Degree Days (HDD)	19
Table 1.3b: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Cooling Degree Days (CDD).....	20
Table 1.4: Facilities in Urban Heat Islands.....	23
Table 1.5: Top 5-10 Facilities that will be Most Impacted by Projected Changes in Precipitation.....	25
Table 1.6: All Facilities at Risk from Rising Sea Levels	26
Table 1.7: Top 5-10 Facilities Most at Risk to Wildfire Threats by Fire Hazard Severity Zone	28
Table 1.8: Facilities Impacted by Previous Wildfire Events (Last 20 Years).....	30
Tables 1.9: a-g: Climate Risks to New Facilities	32
a.1 Annual Mean Max. Temperature	32
a.2 Annual Mean Min. Temperature	32
b. Annual Mean Max. Precipitation	32
c. Largest Increase in Extreme Heat Events	33
d. Sea Level Rise	33
e. Wildfire Risks by Fire Hazard Severity Zone	33
f. Facilities Impacted by Previous Wildfire Events (Last 20 Years)	33
g. Risk from Heating Degree Days/Cooling Degree Days.....	33
Table 1.10: Facilities Located in Disadvantaged Communities.....	35
Table 1.11: New Facilities and Disadvantaged Communities and Urban Heat Islands	36
Table 1.12: Integration of Climate Change into Department Planning	36

Table 1.13: Community Engagement and Planning Processes.....	37
Table 1.14: Climate Change Implementation Planning in Department Funding Programs.....	38
Table 2.1: Total Fuel Purchased in 2023/2024.....	41
Table 2.2 Total Miles Traveled	45
Table 2.3 Miles per Gallon.....	45
Table 2.4 Light Duty Vehicles in Department Fleet Currently Eligible for Replacement.....	50
Table 2.5 Plan for Light Duty ZEV Additions to the Department Fleet	50
Table 2.6 MD/HD Vehicles in Department Fleet Currently Eligible for Replacement	52
Table 2.7 Planned Medium/Heavy Duty ZEV Additions to the Department Fleet .	53
Table 2.8 Take-Home Vehicle Fleet Status	55
Table 2.9 : High Priority EVSE Projects.....	61
Table 2.10 EV Charging Infrastructure Site Assessments Conducted	63
Table 3.1: Total Purchased Energy 2023 and 2024.....	69
Table 3.2: Facilities with Largest 2024 Energy Consumption.....	70
Table 3.3 Zero Net Energy Buildings	74
Table 3.4: New Building Construction Exceeding Title 24 by 15%.....	75
Table 3.5: Department-Wide Energy Trends (if available)	76
Table 3.6: Summary of Energy Savings Projects 2023-2024	77
Table 3.7 : Demand Response (DR) Program Participation.....	78
Table 3.8: 2024 On-Site and Off-Site Renewable Energy	80
Table 3.9: Current & Potential MBCx Projects	81
Table 3.10: Building Controls.....	83
Table 4.1: GHG Emissions since 2010 (Metric Tons of CO₂e).....	87
Table 4.2: Baseline Building Inventory – Owned Facilities	91
Table 4.3: Baseline Building Inventory – Leased Facilities.....	93
Table 4.4: Central Utility Plant Inventory	94
Table 4.5: Building Electrification Measure Summary.....	97
Table 4.6: CUP Measure Summary	98
Table 4.7: Energy Efficiency Measure Summary	99

Table 4.8: Decarbonization Strategy Summary.....	106
Table 4.9: Pilot and Priority Projects for Initial Implementation.....	108
Table 4.10: Decarbonization Cost Estimates	109
Table 5.1: Total Purchased Water	111
Table 5.2: Properties with Largest Purchased Water Use Per Capita.....	113
Table 5.3: Properties with Largest Landscape Area Irrigated with Purchased Water	114
Table 5.4: Department-Wide Purchased Water Use Trends	115
Table 5.5: Total Purchased Water Reductions Achieved in Gallons	117
Table 5.6: Building Indoor Water Fixtures and Water Using Appliances Needs Inventories Summary	118
Table 5.7: Summary of Current Indoor Water Efficiency Projects Completed 2020-Present or In Progress.....	119
Table 5.8: Department-Wide Nonpurchased Water Use	122
Table 5.9: Annual Amount of Boiler Makeup Water Used	124
Table 5.10: Cooling Tower Water Use	126
Table 5.11: Summary of 2024 Boiler Needs Inventory	128
Table 5.12: Summary of 2024 Cooling System Needs Inventory	128
Table 5.13: Summary of Efficiency Projects for Boilers and Cooling Systems	129
Table 5.14: Summary of 2024 Outdoor Irrigation Hardware Needs Inventory.....	131
Table 5.15: Summary of Outdoor Hardware Water Efficiency Projects Completed 2020 -Present or In Progress	132
Table 5.16: All Facilities With > 500 sq. ft. of Living Landscape Inventory	134
Table 5.17: Summary of Completed Living Landscaping Water Efficiency Projects	137
Table 5.18: Large Landscape Inventory (>20,000 sq. ft.) and the Required Associated Landscape Water Budget Schedule	141
Table 5.19: Buildings in Designated Critically Overdrafted Groundwater Basins	144
Table 5.20: Buildings with Urban Water Shortage Contingency Plans (WSCP)....	144
Table 6.1: New Building Construction since July 1, 2012.....	147
Table 6.2: Large Building LEED Certification for Existing Buildings	147
Table 6.3: Self-Managed Pest Control.....	156

Table 6.4: External Pest Control Contracts.....	157
Table 6.5: Top 5 Department Pests Requiring Pest Control.....	158
Table 6.6: Smart Location Score for New Leases after January 1, 2020.....	160
Table 6.7: Current (non-expired) Leases Prior to 2020 - Lowest Smart Location Score	161
Table 7.1: State Agency Reporting Center (SARC) Report on Total Waste per Capita	167
Table 7.2: Edible Food Recovery Program Elements.....	171
Table 7.3: Food Service Concessionaire Items Program Elements	172
Table 7.4: Hazardous Waste Materials	173
Table 7.5: Reporting on Department- Wide Universal Waste Materials	175
Table 8.1: Goods and Services Categories with the Greatest Potential to Green	184
Table 8.2: 2024 EPP Basic Training Completions.....	187
Table 8.3: 2024 EPP Executive Training Completions for Executive Members	188
Table 8.4: State Agency Buy Recycled Campaign (SABRC) FY 23/24 Performance.....	189
Table 9.1: Climate Change Priority Projects	192
Table 9.2: EV Priority Projects	193
Table 9.3: Building Energy Conservation and Efficiency Priority Projects.....	194
Table 9.4: Funding Opportunities for Decarbonization.....	195
Table 9.5: Water Conservation and Efficiency Priority Projects	196
Table 9.6: Facilities Construction and Maintenance Priorities	196
Table 9.7: Waste Management and Recycling Priorities.....	197
Table 9.8: Procurement Priorities.....	197
Table F-1 Statutory Requirements, Executive Orders, Management Memos, and the State Administrative Manual and the Applicable Roadmap Chapters	225
Table F-2 Action Plans, and State Resources and Guidance Documents and the Applicable Roadmap Chapters.....	226
Graph 2.1: 2024 Composition of Vehicle Fleet.....	41
Graph 2.2: Composition of Light Duty Vehicle Fleet.....	47

Graph 2.3: Composition of Medium and Heavy-Duty Vehicle Fleet..... 48

Graph 2.4: Parking Facilities 59

Graph 4.1: GHG Emissions since 2010 88

**Planning Outline: PO1:a: Plan for Top 5-10 Facilities HDD and CDD
Mitigation/Adaptation..... 21**

Planning Outline: PO1:b: Plan for Urban Heat Islands Mitigation 23

**Planning Outline PO1:c: Plan for Top 5-10 Facilities Most Impacted by Projected
Changes in Precipitation..... 25**

Planning Outline PO1:d: Planning for Sea Level Rise impacts Mitigation 27

Planning Outline PO3a: Planning for Facilities with Largest Energy Use 71

**Planning Outline PO5:a: Building Indoor Water Efficiency Priority Projects for the
Next 5 Years..... 120**

**Planning Outline PO5:b: Planned Projects for Living Landscape Upgrades for the
Next 5 Years..... 136**

**Planning Outline PO5:c: Achieving Large Living Landscape Area Requirements
(>20,000 sq. ft.) 142**